

Actuarial Valuation Report

As of June 30, 1999

San Mateo County Employees'
Retirement Association

February 2000

William M. Mercer, Incorporated
3 Embarcadero Center
Suite 1500
San Francisco, CA 94111

415 743 8700

February 14, 2000

Board of Retirement
San Mateo County Employees' Retirement Association
702 Marshall, Suite 280
Redwood City, California 94063

Dear Members of the Board:

We are pleased to present the actuarial valuation for the San Mateo County Employees' Retirement Association prepared as of June 30, 1999 by William M. Mercer, Incorporated. The report includes:

- (1) a determination of the recommended employer contribution rates. These rates are calculated to be effective July 1, 2000;
- (2) a determination of the recommended member contribution rates, also to be effective on July 1, 2000;
- (3) a determination of the funded status as of June 30, 1999; and
- (4) financial reporting and disclosure information pursuant to applicable accounting standards.

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 Association vs. Board of Retirement, Ventura County Employees' Retirement Association.

This report assumes no retroactive application of the October 1, 1997, Ventura decision.

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

We look forward to presenting this report to the Board in the February meeting.

Sincerely,

Drew James, FSA, EA, MAAA

Andy Yeung, ASA, EA, MAAA

Contents

- ACTUARIAL CERTIFICATION..... 1
 - Actuarial Certification.....2
- BOARD MEMBER SUMMARY OF VALUATION RESULTS..... 4
 - Summary of Recommendations.....5
 - Explanation of Changes in Actuarial Values.....7
- ACTUARIAL ASSUMPTIONS 9
 - Economic Actuarial Assumptions..... 10
 - Noneconomic Actuarial Assumptions30
- ACTUARIAL VALUATION METHODS 32
 - Actuarial Funding Method33
 - Actuarial Value of Assets34
- ACTUARIAL VALUATION RESULTS..... 37
 - Employer and Member Contribution Rates.....38
 - Explanation of Changes in Actuarial Values.....39
- FUNDING STATUS..... 44
 - Evaluation of Funding Status45
- FUNDING HISTORY 47
 - Funding History.....48
- ACTUARIAL BALANCE SHEET..... 50
 - Actuarial Balance Sheet.....51
- ASSOCIATION ASSETS 55
 - Association Assets56

- APPENDICES
 - A. Major Provisions of The Present System.....66
 - B. Summary of Assumptions and Funding Method70
 - C. Summary of Membership and Benefit Standards.....83
 - D. Members' Contribution Rates 101
 - E. Glossary of Actuarial Terminology..... 103

ACTUARIAL CERTIFICATION

Actuarial Certification

The annual actuarial valuation required for the San Mateo County Employees' Retirement Association has been prepared as of June 30, 1999 by William M. Mercer, Incorporated. In preparing this valuation, we have employed generally accepted actuarial methods and assumptions to determine a sound value for the Association's assets, liability and future contribution requirements. Our calculations are based upon member data and audited financial information provided to us by the Association'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 year's data.

The contribution requirements are determined as a percentage of payroll. Employer rates 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 12 $\frac{1}{2}$ years as of June 30, 1999. The contribution to the unfunded actuarial accrued liability is calculated to remain as a level percentage of future payroll (including projected payroll for future members). Payments will increase 4.25% per year. The period for amortizing the unfunded actuarial accrued liability is set by the Board of Retirement.

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 increased from 89.9% to 92.0% during the year due primarily to favorable return from investment. Progress has been made toward achieving the funding objectives of the Association.

There are changes to both the economic and non-economic assumptions used in the current valuation. The changes are documented in our Active and Retired Experience Analysis report for the period of July 1, 1996 to June 30, 1999 and were adopted by the Board on January 25, 2000.

The liabilities and costs in this valuation reflect the Board's expansion of the pay items includable in Earnable Compensation in response to the 1997 California Supreme Court's decision in Ventura County Deputy Sheriff's Association vs. Board of Retirement, Ventura County Employee's Retirement Association. Terminal pay is excluded under the Board's policy and the expansion of Earnable Compensation only applies to retirees since October 1997 (i.e., no retroactive application).

At the January 25, 2000 Board meeting, the Board decided to establish a reserve to offset contingent liabilities that may arise from pending litigation on Ventura. The intent was to keep the County's contribution rates at the same level as was determined in the June 30, 1998 valuation. The contribution rates in this report reflect that decision, and result in a reserve of \$32,145,000.

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

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

- (1) differences between actual experience and anticipated experience;

ACTUARIAL CERTIFICATION

- (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.

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

William M. Mercer, Incorporated

Drew James, FSA, EA, MAAA

Andy Yeung, ASA, EA, MAAA

Date

Date

BOARD MEMBER SUMMARY OF VALUATION RESULTS

SUMMARY OF VALUATION RESULTS

Summary of Recommendations

Employer Contributions Rates	June 30, 1999	June 30, 1998	Increase/Decrease
Normal Cost Rate:	11.43%	10.58%	0.85%
Rate of Contribution to Unfunded			
Actuarial Accrued Liability:	<u>4.03%</u>	<u>4.88%</u>	-0.85%
Total Employer Rate:	15.46%	15.46%	0.00%
Estimated Annual Amount:	\$ 36,926,000	\$ 36,926,000	\$ -

Member Contribution Rates	June 30, 1999	June 30, 1998	Increase/Decrease
General Members (Plan 1 & Plan 2)			
25	5.46%	5.32%	0.14%
35	5.82%	5.71%	0.11%
45	6.54%	6.41%	0.13%
General Members (Plan 4)			
25	5.21%	5.06%	0.15%
35	5.55%	5.43%	0.12%
45	6.24%	6.10%	0.14%
Safety Members (Plan 1 & Plan 2)			
21	6.77%	6.76%	0.01%
25	6.84%	6.86%	-0.02%
30	7.03%	7.11%	-0.08%
Safety Members (Plan 4)			
21	6.44%	6.43%	0.01%
25	6.51%	6.54%	-0.03%
30	6.69%	6.77%	-0.08%
Probation Officers (Plan 1, Plan 2 & Plan 4)			
21	7.58%	7.57%	0.01%
25	7.66%	7.69%	-0.03%
30	7.87%	7.96%	-0.09%
Estimated Annual Amount	\$ 13,483,000	\$ 13,263,000	\$ 220,000

Actuarial Assumptions	June 30, 1999	June 30, 1998	Increase/Decrease
Annual Inflation Rate:	4.25%	4.50%	-0.25%
Annual Investment Return:	8.25%	8.00%	0.25%
Average Annual Salary Increases:	6.25%	5.75%	0.50%

Other assumptions are based upon the June 30, 1999 experience analysis.

SUMMARY OF VALUATION RESULTS

SAN MATEO COUNTY
Employees' Retirement Association
Summary of Significant Actuarial Statistics and Measures

Association Membership	June 30, 1999	June 30, 1998	Increase/Decrease
<i>Active Members</i>			
1. Number of Members	4,578	4,420	3.6%
2. Total Active Payroll	\$ 238,864,000	\$ 211,529,000	12.9%
3. Average Monthly Salary	\$ 4,348	\$ 3,988	9.0%
<i>Retired Members</i>			
1. Number of Members			
Service Retirement	2,295	2,300	-0.2%
Disability Retirement	263	250	5.2%
Beneficiaries	401	381	5.2%
2. Total Retired Payroll	\$ 50,491,000	\$ 46,845,000	7.8%
3. Average Monthly Pension	\$ 1,422	\$ 1,332	6.8%
<i>Inactive Vested Members</i>			
1. Number of Members	613	552	11.1%
Asset Values (Net)			
Market Value	\$ 1,261,022,000	\$ 1,175,799,000	7.2%
Return on Market Value	7.01%	16.63%	
Actuarial Value	\$ 1,154,290,000	\$ 1,005,061,000	14.8%
Return on Actuarial Value	14.55%	15.00%	
Valuation Assets	\$ 1,109,417,000	\$ 992,314,000	11.8%
Return on Valuation Assets	11.51%	14.87%	
Liability Values			
Actuarial Accrued Liability	\$ 1,205,554,000	\$ 1,104,070,000	9.2%
Unfunded Actuarial Accrued Liability (UAAL)	\$ 96,137,000	\$ 111,756,000	-14.0%
Funding Ratios			
GASB No. 25*	92.0%	89.9%	2.1%

* Based on actuarial value of assets.

Explanation of Changes in Actuarial Values

Employer Contribution Rate

At the January 25, 2000 Board meeting, the Board decided to establish a reserve to offset contingent liabilities that may arise from pending litigation on Ventura. A reserve of \$32,145,000 results in an employer contribution rate which, in aggregate, is the same as the 1999-2000 fiscal year rate. The average employer contribution rate was calculated to remain at the level determined at the June 30, 1998 valuation.

The gains and losses were as follows:

Summary of (Gains) / Losses	Contribution Rate	Dollar Impact
June 30, 1998 Rate	15.46%	36,926,000
Salary Increase greater than expected	1.74%	4,156,000
Correction for part timers	(0.11%)	(263,000)
Retiree COLA less than expected	(0.13%)	(311,000)
Assets (Gain) / Loss	(2.80%)	(6,688,000)
Reduction in UAAL Rate (Larger Salary Base)	(0.39%)	(932,000)
Higher than expected contributions	(0.38%)	(908,000)
Reduction in Normal Cost	(0.45%)	(1,075,000)
Ventura Reserve	1.35%	3,225,000
Assumption Change	1.19%	2,842,000
Miscellaneous (Gains) / Losses	(0.02%)	(46,000)
June 30, 1999 Rate	15.46%	36,926,000

Explanation of Gains/Losses

1. Salary increase greater than expected – salary increases for continuing active employees averaged 12.52% (including a 6% across the board increase effective August 1999) over 1998-1999, and was well over the 5.75% increase expected.
2. Correction for part-timers – An adjustment to salaries for part-timers was made to more accurately determine the rate of contribution to the Unfunded Actuarial Accrued Liability.
3. Retiree COLA less than expected – Retirees received a COLA which was less than the assumed COLA.
4. Assets (Gain)/Loss – The Association’s valuation assets earned \$67 million in excess of the 8.00% return assumption.

SUMMARY OF VALUATION RESULTS

5. Reduction in UAAL Rate (larger salary base). The UAAL rate declined as a percentage of payroll due to the larger salary base available to amortize the payments.
6. Normal Cost Rate Reduction – Due to change in demographics and adjustments for members who had 30 years of services.
7. Ventura Reserve – The Board established a reserve of \$32,145,000 to offset contingent liabilities that may arise from pending litigation on Ventura.
8. Assumption Change – There were changes to both the economic and noneconomic assumption used in the current valuation. The changes are documented in our Active and Retired Experience Analysis report for the period of July 1, 1996 to June 30, 1999 and adopted by the Board in January, 2000.
9. Miscellaneous (Gains)/Losses – Other rate changes with untraced sources.

Member Contribution Rate

The average member contribution rate increased from 5.55% to 5.64% due to changes in assumptions.

Funding Ratios

The increase in funding ratio is due primarily to significant investment gains.

Actuarial Assumptions

There have been changes to both the economic and noneconomic assumptions since the last valuation on June 30, 1998. The changes are documented in our active and retired experience analysis report for the period of July 1, 1996 to June 30, 1999.

ACTUARIAL ASSUMPTIONS

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 (or credits from the Overfunded 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-specific 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 current 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 of each of the three economic assumptions.

Inflation

Recommendation

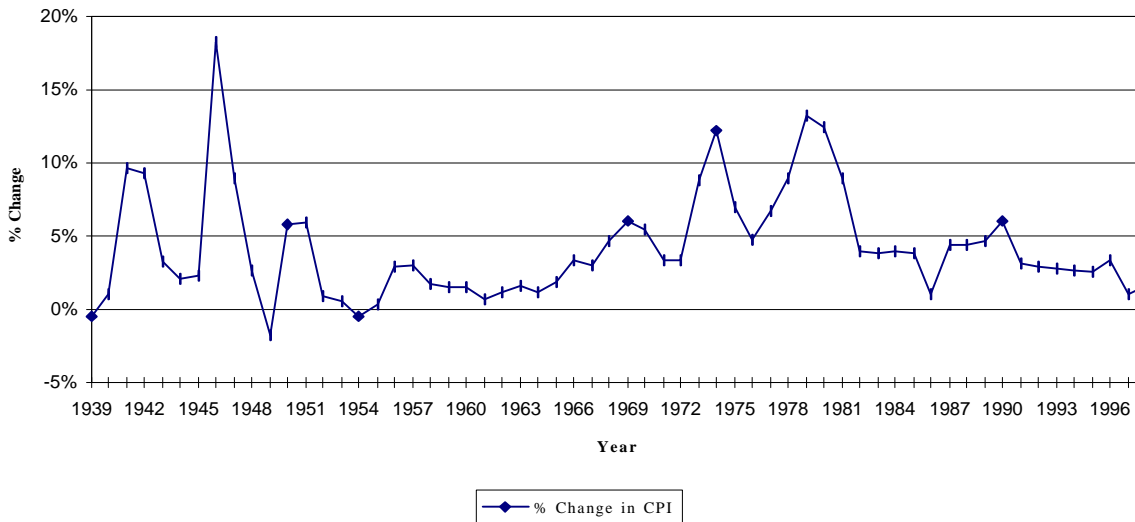
The Board adopted our recommendation to reduce the current inflation rate from 4.50% to 4.25%. The analysis supporting our recommendation follows.

Setting the Assumption

The rate of inflation has varied significantly over time. The following chart shows the annual increases in the Consumer Price Index over the last 60 years:

Chart 1

Annual Increase in CPI (1939 Through 1998)



The actuarial SOP specifies the following data to be considered in setting the inflation assumption (Section 3.5.1):

- Consumer Price Indices (CPI)
- The Gross Domestic Product Implicit Price Deflator (IPD)
- Forecasts of inflation
- Yields on government securities of various maturities

Because the CPI and IPD have not differed significantly over the last 60 years, we will focus our analysis on the CPI.

CPI

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)

<u>Number of Years</u> <u>Ending 12/31/98:</u>	<u>CPI</u>
10	3.06%
20	4.48%
30	5.21%
40	4.41%
50	3.90%
60	4.17%

(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 at the low end of this range. 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

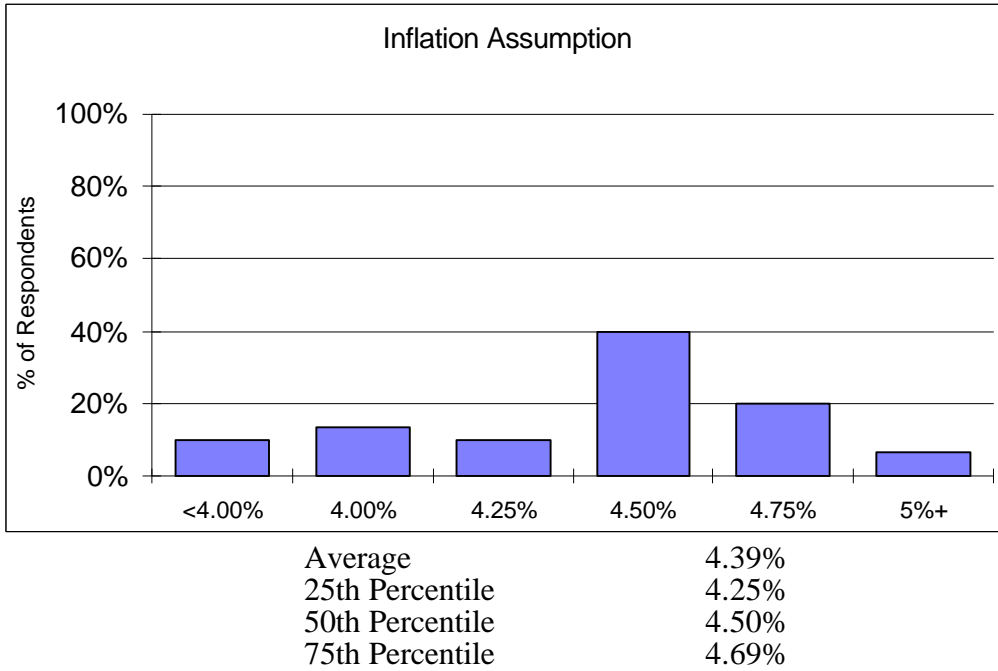
We believe it is valuable to examine inflation assumptions adopted by similarly situated public retirement systems as an indicator of their long-term inflation expectations. Charts 2 and 3 provide the inflation assumptions used by the 30 California public retirement systems who responded to Mercer's

ACTUARIAL ASSUMPTIONS

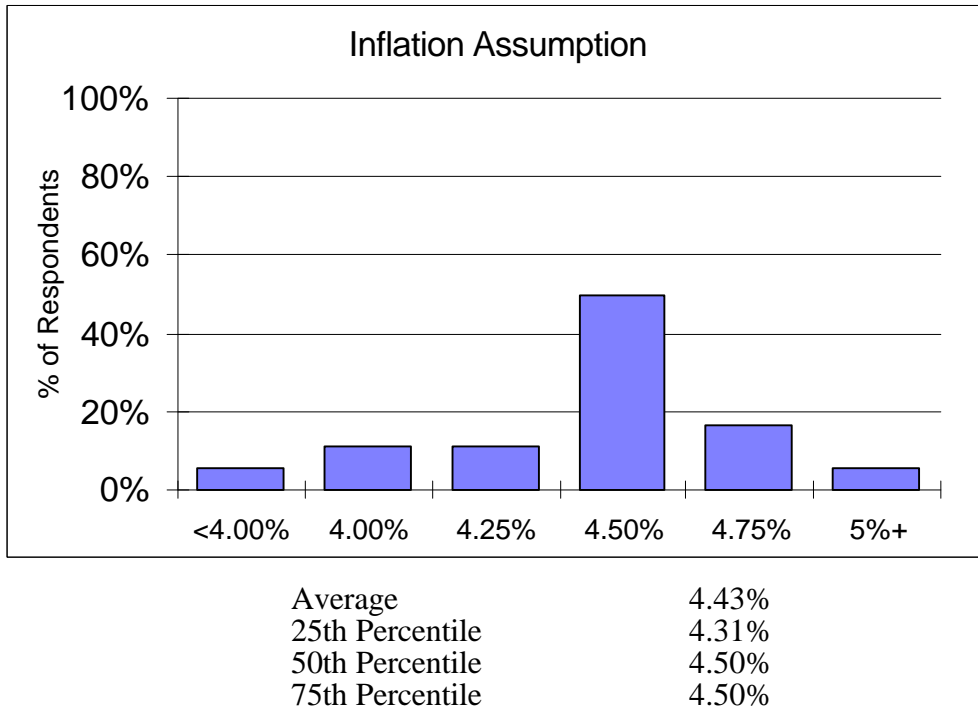
1998 survey of economic actuarial assumptions, and the 18 1937 Act respondents, respectively.

The average inflation rates from the survey for both of these groups was about 4.4% in 1998, although we are aware that many systems reduced their inflation rates in 1999.

**Chart 2 - Comparisons of Economic Actuarial Assumptions
All Respondents
(based on 30 responses)**



**Chart 3 - Comparison of Economic Actuarial Assumptions
37 Act County Respondents
(based on 18 responses)**



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%; and
2. Inflation forecasts inherent in inflation assumptions adopted by similarly situated retirement systems were about 4.40% in 1998 and have been dropping since.

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

Investment Return

Recommendation

The Board adopted our recommendation to increase the annual investment return assumption to 8.25%. The analysis supporting our recommendation follows.

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 the previous section. 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. The fourth item relates primarily to corporate pension plans. Our analysis will focus on the third item.

Section 3.6.3 of the actuarial SOP includes 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 are 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 Association 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.

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 studies. Table 2 provides the Ibbotson-Sinquefield measure of the real rates of return between 1926 and 1998. Investment consulting firms also utilize this 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.

Table 2**Ibbotson Associates
Real Rates of Return of Investments
(Geometric Mean)**

	<u>(1926 – 1998)</u>
Common Stocks	8.2%
Small Stocks	9.4%
Long-term government bonds	2.1%
Long-term corporate bonds	2.6%
Intermediate government bonds	2.1%
Treasury bills	0.7%

Since this data is entirely historical it does not necessarily reflect future expectations. It also does not cover some types of investments common in the Association's portfolio, Mercer has developed the following more detailed rate of return assumption by asset class. These expected real rates of return are taken from a number of sources which include consideration of future expectations.

**Table 3
Expected Asset Class Returns Net of Inflation (Real)**

<u>Asset Class</u>	<u>Total Real Return</u>
Large Stocks	6.4%
Small Stocks	7.4
Int'l Stocks	6.8
Long Bonds	3.2
Intermediate Bonds	3.2
Real Estate	5.1
Money Market	1.5

Asset Allocation

The Association 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 Association’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 Association 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 Association’s portfolio.

The current and target asset allocations utilized by the Association are shown in Table 4.

Table 4
SamCERA Asset Allocation as of 6/30/99
At Market Value

	<u>Current</u>	<u>Target</u>
Domestic Stocks*	41%	42%
International Stocks	19%	15%
Emerging Market Stocks	0%	5%
Bonds and Fixed Income	28%	30%
Real Estate	9%	8%
Cash Equivalents and Short-Term	3%	0%

* Includes 15% in small cap.

Applying the target asset allocation (Table 4) to the information in Table 3 results in a real rate of return of approximately 5.66%. 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 (References are to sections of the County Employees’ Retirement Law of 1937).

- 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).

An expense percentage of 0.40% was used as an estimate of future expenses.

Risk Adjustment

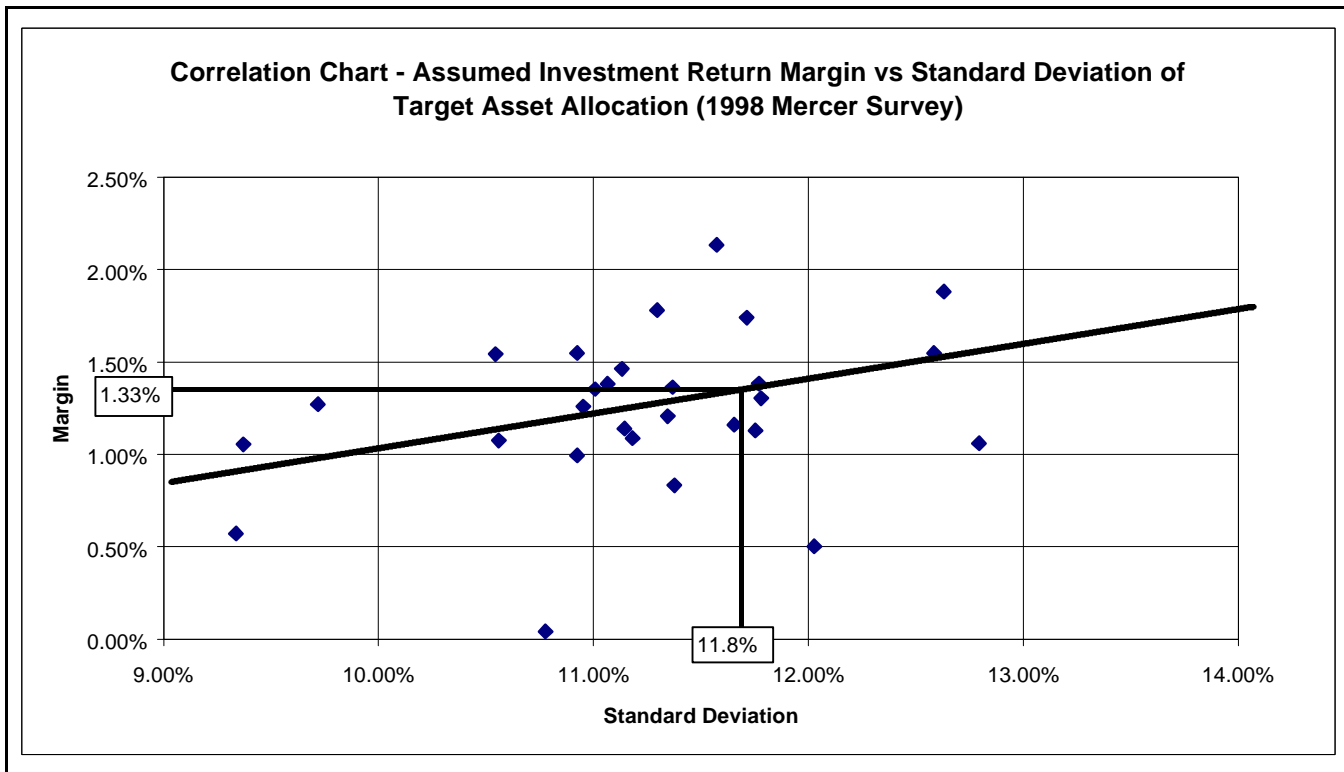
The net real rate of return assumption should reflect the risk associated with not achieving expectations. This is developed by considering:

- 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 under-perform 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 4 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.

As an aid in setting an appropriate risk adjustment, Chart 4 presents a distribution diagram developed from Mercer's 1998 survey of economic assumptions of 30 California public retirement systems. From this survey we are able to identify how the risk adjustments implicit within a system's investment return assumption varies with the system's risk level (as measured by the standard deviation of their current asset allocation). The diagram in Chart 4 provides that relationship. The chart also includes a regression line which, given a system's risk level, can be used to identify a risk adjustment consistent with the survey data.

Chart 4



As you can see from the chart, the Association’s risk adjustment so calculated would be approximately 1.33%, based on our calculation of the portfolio’s annual standard deviation of 11.8% (based on the System’s target asset allocation).

Investment Manager Performance

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

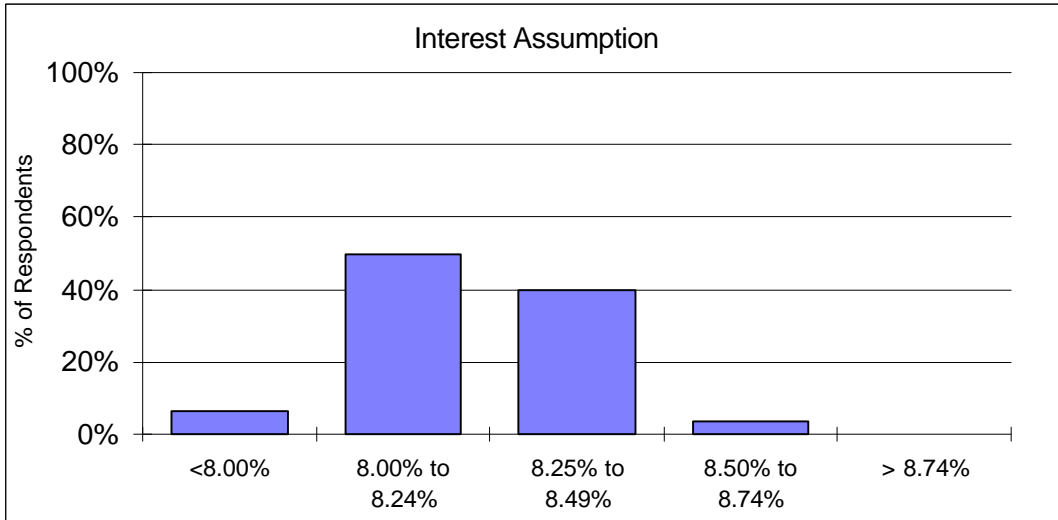
Anticipating superior (or inferior) investment manager performance may be unduly optimistic (or pessimistic). Few investment managers consistently achieve significant above-market returns net of expenses over long periods. The plan sponsor may replace managers who consistently under-perform market indices.

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 Systems

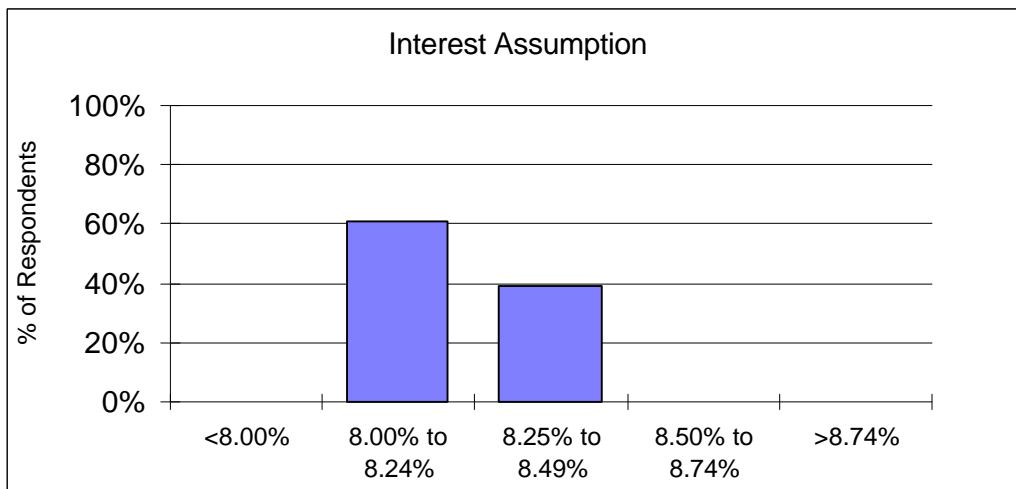
Charts 5 and 6 provide the investment return assumptions used by the 30 California public retirement systems who responded to Mercer's 1998 survey of the economic actuarial assumptions, and the 18 respondents subject to the 1937 Act, respectively.

**Chart 5 - Comparison of Economic Actuarial Assumptions
All Respondents
(based on 30 responses)**



Average	8.10%
25th Percentile	8.00%
50th Percentile	8.16%
75th Percentile	8.25%

**Chart 6 - Comparison of Economic Actuarial Assumptions
37 Act County Respondents
(based on 18 responses)**



Average	8.14%
25th Percentile	8.00%
50th Percentile	8.16%
75th Percentile	8.25%

ACTUARIAL ASSUMPTIONS

The average investment return rates from the survey for both of these groups is approximately 8.1%. About 40% of 1937 Act Systems are using a return assumption of 8.25% or greater.

Development of Recommendation

Based on the above analysis, we arrive at a real rate of return assumption of 3.93% (average gross rate of return of 5.66% minus 0.40% expenses minus risk adjustment of 1.33%). Combining this rate and the inflation assumption of 4.25% results in an expected return of 8.18%.

Although this result is higher than the current 8.0% investment return assumption, the 8.0% assumption is still reasonable. However, we believe the Board has flexibility to raise the assumption by 0.25% if such a move is deemed prudent. Before making such a move, the Board should consider any need to maintain additional conservatism as a contingency against future court interpretations requiring Earnable Compensation to include such items as accrued vacation time paid off at retirement or application of the Ventura decision retroactively.

Salary Increase Assumptions

Recommendations

Salary Increase Assumptions

The Association'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 experience study analysis we have reviewed real salary increases received by members over the three years ending June 30, 1999. Members were grouped by service and age to determine how salary increases vary across these groups. We recommend that the real salary increases be continued as a function of age rather than both age and years of service. Age based salary increase assumptions are common in California county retirement systems. We are recommending the following changes to the annual real salary increase assumptions:

Real Salary Increase Assumptions

	General Members		Safety Members	
	Current Salary Increase Assumptions	Recommended Salary Increase Assumptions	Current Salary Increase Assumptions	Recommended Salary Increase Assumptions
Ages 20-24	5.00%	5.50%	4.30%	4.75%
Ages 25-29	3.50%	4.25%	4.00%	4.50%
Ages 30-34	3.40%	4.00%	2.90%	3.50%
Ages 35-39	2.00%	2.75%	1.30%	2.25%
Ages 40-44	1.20%	2.00%	0.90%	1.50%
Ages 45-49	1.10%	1.50%	0.70%	1.00%
Ages 50-54	0.80%	0.80%	0.60%	0.75%
Ages 55-59	0.70%	0.70%	0.40%	0.50%
Ages 60-64	0.60%	0.60%	0.40%	0.40%
Ages 65-69	0.30%	0.50%	0.00%	0.00%

Real Salary Increase Assumptions

	General Members		Safety Members	
	Current Salary Increase Assumptions	Recommended Salary Increase Assumptions	Current Salary Increase Assumptions	Recommended Salary Increase Assumptions
Age 70+	0.00%	0.00%	0.00%	0.00%

Setting the Assumption

The Actuarial Standards Board has specified the following data be considered in setting the salary increase assumption (Section 3.7) in its Standard of Practice (SOP):

- 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 SOP 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.

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.

Because of the general nature of governmental employment and the foreseeable budgetary outlook for California governmental employers, there is currently no Real Across-the-Board Salary Increase assumption for the Association.

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 for the following reasons:

1. 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 current 4.25% inflation assumption. This indicates that our inflation assumption is sufficient to predict total wage growth.
2. This has also been a period of very high real rates of investment return. Real rates of investment return have been almost double our long term assumptions. Adding a wage growth assumption to the 4.25% inflation rate would only make sense if we also increased the real rate of investment return assumption by at least that same amount. This would more than offset the effect of the additional wage growth assumption on liabilities.

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

Merit and Longevity Salary Increases

ACTUARIAL ASSUMPTIONS

Merit and longevity increases reflect the promotional grade increase an individual member is expected to receive over his or her career. This assumption is based on observed experience of real salary increases by category of member by age and/or service group. This assumption is reviewed at the time of the triennial experience investigation.

Following are the average nominal (inflation plus real) annual salary increases received by members over the three years ending June 30, 1999.

<u>Age Bracket</u>	<u>General Members Average Annual Increase</u>	<u>Safety Members Average Annual Increase</u>
20-24	15.0%	16.4%
25-29	12.0%	14.6%
30-34	10.0%	12.0%
35-39	8.7%	11.9%
40-44	8.2%	10.5%
45-49	7.3%	8.5%
50-54	5.0%	9.0%
55-59	4.5%	8.2%
60-64	4.5%	5.5%
65-69	2.1%	7.6%
70+	4.0%	0.0%

The increase in average annual salary for active members over this three year period was about 3.9% for General members and 6.9% for Safety members. Removing these average increases provides the following real increases over the three years.

<u>Age Bracket</u>	<u>General Members Average Annual Increase</u>	<u>Safety Members Average Annual Increase</u>
20-24	11.1%	9.5%
25-29	8.1%	7.7%
30-34	6.1%	5.1%
35-39	4.8%	5.0%
40-44	4.3%	3.6%
45-49	3.4%	2.0%
50-54	1.1%	2.1%
55-59	0.6%	1.3%
60-64	0.6%	-1.4%
65-69	-1.8%	0.8%
70+	0.1%	0.0%

ACTUARIAL ASSUMPTIONS

In light of this experience, the merit and longevity assumption was modified using the detailed methodology at the beginning of this section. The following graphs summarize the current, actual and recommended merit and longevity assumptions.

Chart 7

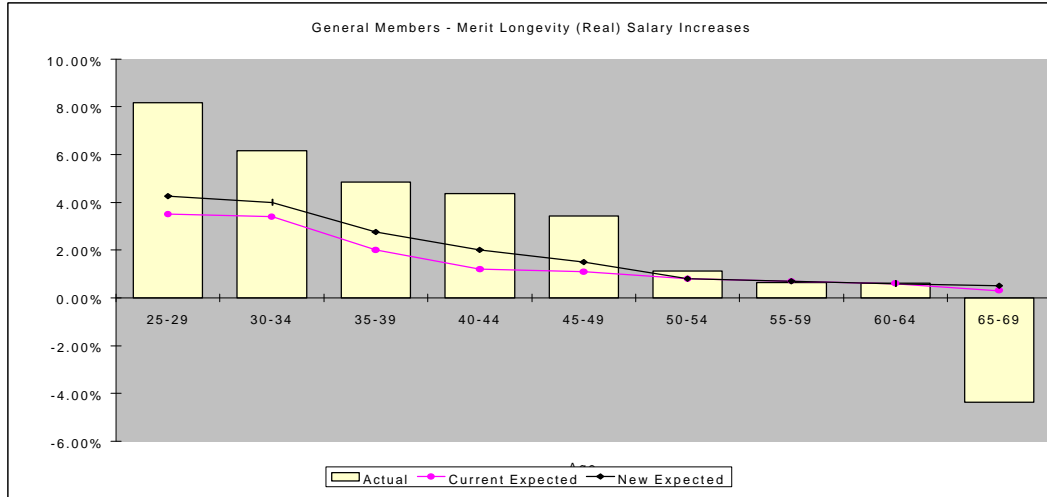
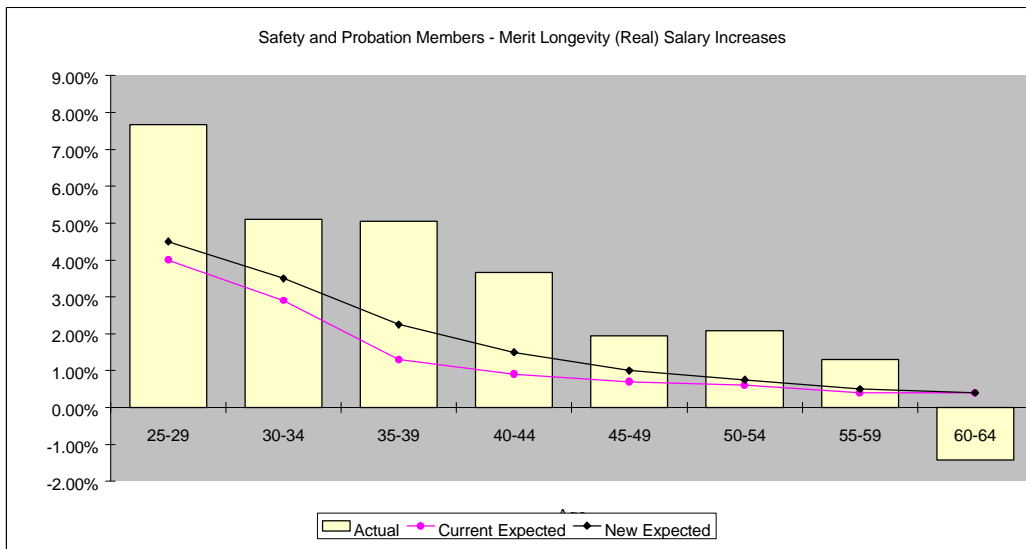


Chart 8



ACTUARIAL ASSUMPTIONS

Adding the 4.25% recommended inflation rate to the recommended merit and longevity salary increases results in the following total salary increase assumptions:

Total Recommended Salary Increase Assumption

<u>Age</u>	<u>General Members</u>	<u>Safety and Probation Members</u>
20-24	9.75%	9.00%
25-29	8.50%	8.75%
30-34	8.25%	7.75%
35-39	7.00%	6.50%
40-44	6.25%	5.75%
45-49	5.75%	5.25%
50-54	5.05%	5.00%
55-59	4.95%	4.75%
60-64	4.85%	4.65%
65-69	4.75%	4.25%
70+	4.25%	4.25%

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, 1999 triennial experience investigation. Adjustments to the current assumptions will be 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 (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

An experience analysis was carried out as of June 30, 1999 to determine the probability of members terminating from active service for various causes. The probabilities developed at that study are used as the basis of determining costs in this study.

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

Post-Retirement Mortality

The mortality after service and after disability was also analyzed in the June 30, 1999 experience study: The life expectancies based on tables adopted at that time are shown in Appendix B.

Mortality Basis for Members' Basic Contribution Rates

We have calculated member contribution rates utilizing a sex-independent mortality basis under Section 31676.1 for General members and Section 31664 for Safety members and Probation Officers. The mortality table for General Members is the 1994 Group Annuity Mortality Table for female (set forward 1 year) and for Safety Members and Probation Officers is the 1994 Group Annuity Mortality Table for males (set forward 1 year). 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 Association 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 Association 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 is calculated to remain as a level percentage of future active member payroll (including payroll of new members as they enter the Association) assuming a constant number of active members. In order to remain as a level percentage of payroll, amortization payments are scheduled to increase at the annual inflation rate of 4.25% along with expected payroll. The UAAL is being funded over the 12½ year period following June 30, 1999.

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

Following directions contained in the January Board resolution, we have established a reserve of \$32,145,000 in order to offset any future contingent Ventura liabilities and to maintain the employer's contribution rates at level established at the June 30, 1998 valuation. The "same" employer contribution rates were developed using the following steps:

1. Employer normal cost contribution rates were calculated using assumptions adopted by the Board for the June 30, 1999 valuation.
2. Employer's contribution rates to the unfunded actuarial accrued liability were calculated by taking the difference between the total employer contribution rates established at the June 30, 1998 valuation and the normal cost rates as of June 30, 1999 determined in item 1.

The result of this approach is to distribute assets among the membership categories. The assets allocated to a particular category are such that the unfunded actuarial accrued liability created for that category, when amortized over 12½ years equals the difference between last year's rate and the new normal cost. These asset balances will be rolled forward next year with cash flow and earnings.

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 E.

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 and Probation Officers, respectively. The basic contribution rate is determined as that percentage of compensation which, if paid annually from a member's first year of membership through age 60 for General members (age 50 for Safety members and Probation Officers), would accumulate to the amount necessary to fund an annuity at that age equal to 1/120 of Final Average Salary for General members (1/100 for Safety members and Probation Officers). Accumulation includes annual crediting of interest at the assumed investment earnings rate. For those Safety members who are not management employees or sergeants, the County is now paying 15% of the Safety members' contribution on a nonrefundable basis. The members do not contribute towards the cost of living benefit.

Actuarial Value of Assets

Background

Under the Entry Age Normal Actuarial Funding Method, a determination is made of the assets the Association would have on hand if the current levels of 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 actuarial interest rate 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 with the fiscal year ending June 30, 1997, the Association adopted a smoothed market value of assets for establishing its reserves. This allows us to use the Association's reserves directly for actuarial purposes. The actuarial value of assets calculated using this method is provided in the following table.

ACTUARIAL VALUATION METHOD

Calculation of Smoothed Market Value of Assets June 30, 1999

Six Month Period From	To	Total Actual Market Return (net)	Expected Market Return (net)	Investment Gain (Loss)	Deferred Factor	Deferred Return
through	06/95			\$60,777,780	0.2	\$12,155,556
07/95	06/96	\$106,343,433	\$58,297,937	\$48,045,496	0.2	\$9,609,099
07/96	06/97	\$151,565,063	\$65,384,853	\$86,180,210	0.4	\$34,472,084
07/97	12/97	\$55,406,564	\$40,075,645	\$15,330,919	0.6	\$9,198,552
01/98	06/98	\$112,680,907	\$42,418,662	\$70,262,245	0.7	\$49,183,572
07/98	12/98	\$17,930,384	\$47,015,616	(\$29,085,232)	0.8	(\$23,268,186)
01/99	06/99	\$64,623,459	\$47,810,457	\$16,813,003	0.9	\$15,131,703
1.	Total deferred return					\$106,482,380
2.	Market Value					\$1,261,022,241
3.	Actuarial Value of Assets for Funding Ratio (Item 2 - Item 1)					\$1,154,539,861
4.	Non-valuation reserves and designations:					
	a. Reserve for Interest Fluctuations					\$12,728,004
	b. Medicare part B Reserve					\$249,759
	c. Ventura Reserve					\$32,145,000
	d. Total					\$45,122,763
5.	Actuarial Value of Assets for valuation (Item 3 - Item 4)					\$1,109,417,098

ACTUARIAL VALUATION RESULTS

Employer and Member Contribution Rates

The following Table 9 provides a comparison of the Employer and Member contribution rates and estimated annual contribution amounts under the valued actuarial assumption sets. The estimated annual contribution amounts are based upon annual payroll as of the actuarial valuation date.

Table 9				
Contribution Rates and Estimated Annual Contributions				
Valuation Basis (Inflation/Investment Return/ Salary Increase)	Employer Contributions		Member Contributions	
	<u>Rate*</u>	<u>Annual Amount*</u>	<u>Rate*</u>	<u>Annual Amount</u>
Current Rates (4.5%/ 8.0%/ 5.75%)	15.46%	\$ 36,926,000	5.55%	\$ 13,263,000
Recalculated Rates (4.25%/ 8.25%/ 6.25%)	15.46%	\$ 36,926,000	5.64%	\$ 13,483,000

*Based on total annual salaries as of June 30, 1999 of \$238,864,000

Recommendation

Mercer recommends the adoption of the valuation basis and contribution rates under the Recommended Rates. The component parts of the current and recommended employer and member contribution rates broken down among the various member categories can be found in Tables 10 and 11, respectively.

Please note that the current and recalculated rates have been calculated including no subsidies of normal costs between plans.

Explanation of Changes in Actuarial Values

Employer Contribution Rate

The average employer contribution rate remained the same due to a decision by the Board to keep it at last year's rate and use the gain to set up a reserve to offset pending liabilities that may arise on Ventura.

The gains and losses were as follows:

Summary of (Gains) / Losses	Contribution Rate	Dollar Impact
June 30, 1998 Rate	15.46%	36,926,000
Salary Increase greater than expected	1.74%	4,156,000
Correction for part timers	(0.11%)	(263,000)
Retiree COLA less than expected	(0.13%)	(311,000)
Assets (Gain) / Loss	(2.80%)	(6,688,000)
Reduction in UAAL Rate (Larger Salary Base)	(0.39%)	(932,000)
Higher than expected contributions	(0.38%)	(908,000)
Reduction in Normal Cost	(0.45%)	(1,075,000)
Ventura Reserve	1.35%	3,225,000
Assumption Change	1.19%	2,842,000
Miscellaneous (Gains) / Losses	(0.02%)	(46,000)
June 30, 1999 Rate	15.46%	36,926,000

Explanation of Gains/Losses

1. Salary increase greater than expected – salary increases for continuing active employees averaged 12.52% (including a 6% across the board increase effective August 1999) over 1998-1999, and was well over the 5.75% increase expected.
2. Correction for part-timers – An adjustment to salaries for part-timers was made to more accurately determine the rate of contribution to the Unfunded Actuarial Accrued Liability.
3. Retiree COLA less than expected – Retirees received a COLA which was less than the assumed COLA.
4. Assets (Gain)/Loss – The Association's valuation assets earned \$67 million in excess of the 8.00% return assumption.
5. Reduction in UAAL Rate (larger salary base). The UAAL rate declined as a percentage of payroll due to the larger salary base available to amortize the payments.
6. Normal Cost Rate Reduction – Due to change in demographics and adjustments for members who had 30 years of services.

ACTUARIAL VALUATION RESULTS

7. Ventura Reserve – The Board established a reserve of \$32,145,000 to offset contingent liabilities that may arise from pending litigation on Ventura.
8. Assumption Change – There were changes to both the economic and noneconomic assumption used in the current valuation. The changes are documented in our Active and Retired Experience Analysis report for the period of July 1, 1996 to June 30, 1999 and adopted by the Board in January, 2000.
9. Miscellaneous (Gains)/Losses – Other rate changes with untraced sources.

Member Contribution Rate

The average member contribution rate increased from 5.55% to 5.64% due to changes in assumptions.

Funding Ratios

The increase in funding ratio is due primarily to significant investment gains.

Actuarial Assumptions

There have been changes to both the economic and noneconomic assumptions since the last valuation on June 30, 1998. The changes are documented in our active and retired experience analysis report for the period of July 1, 1996 to June 30, 1999.

ACTUARIAL VALUATION RESULTS

Table 10
Summary of Employee Basic Contribution Rates

Current Member Rates

4.50% inflation, 8.00% interest, and 5.75% salary increase assumptions

Entry Age	GENERAL		Entry Age	SAFETY*		Entry Age	PROBATION
	Plan 1 and 2	Plan 4		Plan 1 and 2	Plan 4		Plan 1, 2 and 4
	Rate	Rate		Rate	Rate		Rate
25	5.32%	5.06%	21	6.76%	6.43%	21	7.57%
35	5.71%	5.43%	25	6.86%	6.54%	25	7.69%
45	6.41%	6.10%	30	7.11%	6.77%	30	7.96%

Recommended Member Rates

4.25% inflation, 8.25% interest, and 6.25% salary increase assumptions

Entry Age	GENERAL		Entry Age	SAFETY*		Entry Age	PROBATION
	Plan 1 and 2	Plan 4		Plan 1 and 2	Plan 4		Plan 1, 2 and 4
	Rate	Rate		Rate	Rate		Rate
25	5.46%	5.21%	21	6.77%	6.44%	21	7.58%
35	5.82%	5.55%	25	6.84%	6.51%	25	7.66%
45	6.54%	6.24%	30	7.03%	6.69%	30	7.87%

* Note: For those Safety members who are not management employees or sergeants, the County is paying 15% of the Safety members' basic rates. For Management employees and Sergeants, their rates should be calculated by taking the above rates and dividing by 85%.

ACTUARIAL VALUATION RESULTS

Table 11

**Employer Contribution Rate Detail
Current Rates
4.5% inflation, 8.00% interest, and a 5.75% salary increase assumption**

GENERAL

	<u>Plan 1</u>		<u>Plan 2</u>		<u>Plan 3</u>		<u>Plan 4</u>	
	<u>% of Payroll</u>	<u>Annual Amount</u>	<u>% of Payroll</u>	<u>Annual Amount</u>	<u>% of Payroll</u>	<u>Annual Amount</u>	<u>% of Payroll</u>	<u>Annual Amount</u>
Normal Cost	11.31%	\$ 3,132,000	9.49%	\$ 12,170,000	4.98%	\$ 664,000	7.00%	\$ 1,936,000
Contribution to UAAL	<u>4.36%</u>	<u>\$ 1,207,000</u>	<u>4.36%</u>	<u>\$ 5,591,000</u>	<u>4.36%</u>	<u>\$ 582,000</u>	<u>4.36%</u>	<u>\$ 1,206,000</u>
Total	15.67%	\$ 4,339,000	13.85%	\$ 17,761,000	9.34%	\$ 1,246,000	11.36%	\$ 3,142,000
Payroll		\$ 27,691,000		\$ 128,241,000		\$ 13,339,000		\$ 27,665,000

SAFETY

	<u>Plan 1</u>		<u>Plan 2</u>		<u>Plan 4</u>	
	<u>% of Payroll</u>	<u>Annual Amount</u>	<u>% of Payroll</u>	<u>Annual Amount</u>	<u>% of Payroll</u>	<u>Annual Amount</u>
Normal Cost	20.31%	\$ 1,763,000	16.42%	\$ 2,736,000	13.33%	\$ 603,000
Contribution to UAAL	<u>7.85%</u>	<u>\$ 681,000</u>	<u>7.85%</u>	<u>\$ 1,308,000</u>	<u>7.85%</u>	<u>\$ 355,000</u>
Total	28.16%	\$ 2,444,000	24.27%	\$ 4,044,000	21.18%	\$ 958,000
Payroll		\$ 8,679,000		\$ 16,661,000		\$ 4,521,000

PROBATION

	<u>Plan 1</u>		<u>Plan 2</u>		<u>Plan 4</u>	
	<u>% of Payroll</u>	<u>Annual Amount</u>	<u>% of Payroll</u>	<u>Annual Amount</u>	<u>% of Payroll</u>	<u>Annual Amount</u>
Normal Cost	26.16%	\$ 800,000	17.68%	\$ 1,142,000	12.54%	\$ 319,000
Contribution to UAAL	<u>6.06%</u>	<u>\$ 185,000</u>	<u>6.06%</u>	<u>\$ 392,000</u>	<u>6.06%</u>	<u>\$ 154,000</u>
Total	32.22%	\$ 985,000	23.74%	\$ 1,534,000	18.60%	\$ 473,000
Payroll		\$ 3,060,000		\$ 6,462,000		\$ 2,545,000

Average Rate for the total group = 15.46%

ACTUARIAL VALUATION RESULTS

Table 11 (Cont'd)

**Employer Contribution Rate Detail
Recommended Rates**

4.25% inflation, 8.25% interest, and a 6.25% salary increase assumption

GENERAL

	<u>Plan 1</u>		<u>Plan 2</u>		<u>Plan 3</u>		<u>Plan 4</u>	
	<u>% of Payroll</u>	<u>Annual Amount</u>	<u>% of Payroll</u>	<u>Annual Amount</u>	<u>% of Payroll</u>	<u>Annual Amount</u>	<u>% of Payroll</u>	<u>Annual Amount</u>
Normal Cost	11.64%	\$ 3,223,000	10.34%	\$ 13,260,000	6.03%	\$ 804,000	8.64%	\$ 2,390,000
Contribution to UAAL	<u>4.03%</u>	<u>\$ 1,116,000</u>	<u>3.51%</u>	<u>\$ 4,501,000</u>	<u>3.31%</u>	<u>\$ 442,000</u>	<u>2.72%</u>	<u>\$ 752,000</u>
Total	15.67%	\$ 4,339,000	13.85%	\$ 17,761,000	9.34%	\$ 1,246,000	11.36%	\$ 3,142,000
Payroll		\$ 27,691,000		\$ 128,241,000		\$ 13,339,000		\$ 27,665,000

SAFETY

	<u>Plan 1</u>		<u>Plan 2</u>		<u>Plan 4</u>	
	<u>% of Payroll</u>	<u>Annual Amount</u>	<u>% of Payroll</u>	<u>Annual Amount</u>	<u>% of Payroll</u>	<u>Annual Amount</u>
Normal Cost	20.64%	\$ 1,791,000	16.96%	\$ 2,826,000	15.06%	\$ 681,000
Contribution to UAAL	<u>7.52%</u>	<u>\$ 653,000</u>	<u>7.31%</u>	<u>\$ 1,218,000</u>	<u>6.12%</u>	<u>\$ 277,000</u>
Total	28.16%	\$ 2,444,000	24.27%	\$ 4,044,000	21.18%	\$ 958,000
Payroll		\$ 8,679,000		\$ 16,661,000		\$ 4,521,000

PROBATION

	<u>Plan 1</u>		<u>Plan 2</u>		<u>Plan 4</u>	
	<u>% of Payroll</u>	<u>Annual Amount</u>	<u>% of Payroll</u>	<u>Annual Amount</u>	<u>% of Payroll</u>	<u>Annual Amount</u>
Normal Cost	29.72%	\$ 909,000	16.70%	\$ 1,079,000	13.37%	\$ 340,000
Contribution to UAAL	<u>2.50%</u>	<u>\$ 76,000</u>	<u>7.04%</u>	<u>\$ 455,000</u>	<u>5.23%</u>	<u>\$ 133,000</u>
Total	32.22%	\$ 985,000	23.74%	\$ 1,534,000	18.60%	\$ 473,000
Payroll		\$ 3,060,000		\$ 6,462,000		\$ 2,545,000

Average Rate for the total group = 15.46%

FUNDING STATUS

Evaluation of Funding Status

Background

The evaluation of the Association’s funding status is simply the comparison of its actual value of assets to a target value of assets. There is one funding status measures calculated for the Association:

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

This section of the report provides the Association’s funding status under the GASB No. 25 measure, followed by an exhibit which summarizes the Association’s funding history.

FUNDING STATUS RESULTS

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). These statements require funding status to be measured based upon the actuarial funding method adopted by the Board of Retirement, i.e., for SamCERA, the Entry Age Normal Funding Method. Thus, the target value of assets is equal to the Actuarial Accrued Liability (AAL) and the actual value of assets is the Actuarial Value of Assets developed earlier in this report.

The GASB Statement No. 25 liabilities and assets calculated as of June 30, 1995 through June 30, 1999 are as follows:

Actuarial Valuation Date	Actuarial Value of Assets ⁽¹⁾ (a)	Actuarial Accrued Liability (AAL) - Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a percentage of Covered Payroll ((b-a)/c)
06/30/1995	\$ 651,217,000	\$ 945,417,000	\$ 294,200,000	68.9%	\$ 188,822,000	155.8%
06/30/1996	\$ 728,369,000	\$ 963,162,000	\$ 234,793,000	75.6%	\$ 187,926,000	124.9%
06/30/1997	\$ 856,679,000	\$ 1,037,431,000	\$ 180,752,000	82.6%	\$ 196,391,000	92.0%
06/30/1998	\$ 992,314,000	\$ 1,104,070,000	\$ 111,756,000	89.9%	\$ 211,529,000	52.8%
06/30/1999	\$ 1,109,417,000	\$ 1,205,554,000	\$ 96,137,000	92.0%	\$ 238,864,000	40.2%

⁽¹⁾ Exclude accounts payable

FUNDING HISTORY

Funding History

It is informative to monitor the history of key actuarial and other financial results over time as a dynamic indicator of the Association's ongoing funding progress. The following exhibit provides a 7-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 Association
- (10) Benefit Payments
- (11) Aggregate Contributions minus Benefit Payments
- (12) Investment Income
- (13) Aggregate Contributions plus Investment Income minus Benefit Payments

FUNDING HISTORY

**San Mateo County Employees' Retirement Association Funding History
(All Dollars in 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 Contribu- tions to Association	(10) Prior Year Benefit Payments	(11) Prior Year Free Cash Flow (9)-(10)	(12) Prior Year Invest- ment Income	(13) Prior Year Total Cash Flow (11)+(12)
June 30, 1993	\$873,890	\$564,709	\$309,181	64.6%	8.25%	3.95%	20.76%	5.72%	\$37,724	\$32,935	\$4,789	\$53,182	\$57,971
June 30, 1994	\$905,175	\$605,389	\$299,786	66.9%	8.00%	6.06%	22.06%	5.34%	\$43,464	\$37,187	\$6,277	\$39,855	\$46,132
June 30, 1995	\$945,417	\$651,217	\$294,200	68.9%	8.00%	6.25%	22.04%	5.30%	\$48,368	\$39,444	\$8,924	\$23,683	\$32,607
June 30, 1996	\$963,162	\$728,369	\$234,793	75.6%	8.00%	8.22%	20.67%	5.39%	\$50,713	\$41,606	\$9,107	\$66,425	\$75,532
June 30, 1997	\$1,037,431	\$856,679	\$180,752	82.6%	8.00%	13.78%	19.00%	5.54%	\$54,084	\$43,799	\$10,285	\$49,335	\$59,620
June 30, 1998	\$1,104,070	\$992,314	\$111,756	89.9%	8.00%	15.00%	15.55%	5.68%	\$54,709	\$47,051	\$7,658	N/A	N/A
June 30, 1999	\$1,205,554	\$1,109,417	\$96,137	92.0%	8.25%	11.51%	15.46%	5.64%	\$53,876	\$51,132	\$2,744	N/A	N/A

ACTUARIAL BALANCE SHEET

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.

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

Association 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 Association. 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 Association members. For this valuation, the Normal Costs are:

Member Category	Contribution Rate	Annual Amount
General Plan 1	11.64%	\$ 3,223,000
General Plan 2	10.34%	\$ 13,260,000
General Plan 3	6.03%	\$ 804,000
General Plan 4	8.64%	\$ 2,390,000
Safety Plan 1	20.64%	\$ 1,791,000
Safety Plan 2	16.96%	\$ 2,826,000
Safety Plan 4	15.06%	\$ 681,000
Probation Plan 1	29.72%	\$ 909,000
Probation Plan 2	16.70%	\$ 1,079,000
Probation Plan 4	13.37%	\$ 340,000

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.

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

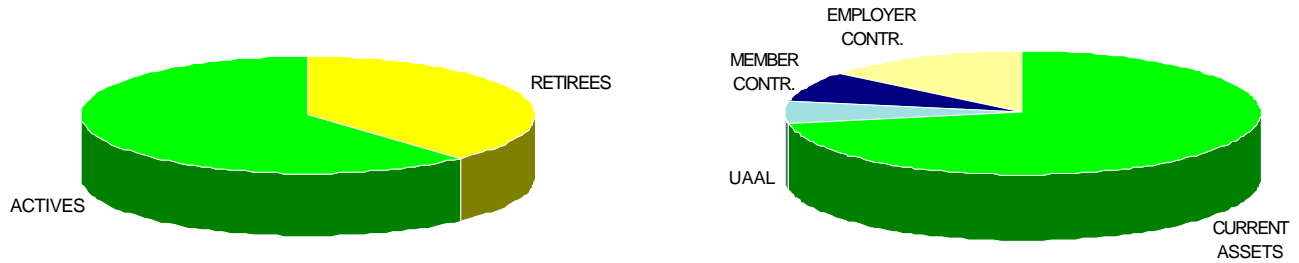
<u>Member Category</u>	<u>Contribution Rate</u>	<u>Annual Amount *</u>
General Plan 1	4.03%	\$ 1,116,000
General Plan 2	3.51%	\$ 4,501,000
General Plan 3	3.31%	\$ 442,000
General Plan 4	2.72%	\$ 752,000
Safety Plan 1	7.52%	\$ 653,000
Safety Plan 2	7.31%	\$ 1,218,000
Safety Plan 4	6.12%	\$ 277,000
Probation Plan 1	2.50%	\$ 76,000
Probation Plan 2	7.04%	\$ 455,000
Probation Plan 4	5.23%	\$ 133,000

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

ACTUARIAL BALANCE SHEET

The following chart illustrates the breakdown of Balance Sheet assets and liabilities of the Association. It shows that 38% of the Associations' liabilities are due to the retired members and their beneficiaries and 62% to active members. About 74% of Association assets consist of current available assets with 26% consisting of future contributions from the employer and the members.

Chart 9
ACTUARIAL BALANCE SHEET



ACTUARIAL BALANCE SHEET

**ACTUARIAL BALANCE SHEET
(As of June 30, 1999)**

ASSETS

	<u>Basic</u>	<u>COL</u>	<u>Total</u>
1. Total Assets at Actuarial Value	\$ 701,623,907	\$ 452,666,197	\$ 1,154,290,104
2. Present Value of Future Member Contributions	126,050,889	0	126,050,889
3. Present Value of Future Employer Contributions on Account of:			
a) Normal Cost	154,717,972	69,138,122	223,856,094
b) Unfunded Actuarial Accrued Liability	97,063,919	(927,395)	96,136,524
4. Total Actuarial Assets	<u>\$ 1,079,456,687</u>	<u>\$ 520,876,924</u>	<u>\$ 1,600,333,611</u>

LIABILITIES

	<u>Basic</u>	<u>COL</u>	<u>Total</u>
5. Present Value of Retirement Allowances Payable to Present Retired Members	\$ 310,392,977	\$ 290,862,692	\$ 601,255,669
6. Present Value of Retirement Allowances to be Granted for:			
a) Service Retirement	626,197,952	202,970,287	829,168,239
b) Disability Retirement	72,885,807	23,960,231	96,846,038
7. Present Value of Death Benefits to be Granted for:			
a) Lump Sum Death Benefit and Return of Contributions	47,745	0	47,745
b) Death while Eligible to Retire	8,753,086	2,244,342	10,997,428
c) Duty Death	2,323,095	839,372	3,162,467
8. Present Value of Members' Contributions to be Returned Upon Withdrawal Before Retirement	13,983,021	0	13,983,021
9. Reserve for Interest Fluctuation	12,728,004	0	12,728,004
Reserve for Ventura	32,145,000	0	32,145,000
10. Payables	0	0	0
11. Total Actuarial Liabilities	<u>\$ 1,079,456,687</u>	<u>\$ 520,876,924</u>	<u>\$ 1,600,333,611</u>

ASSOCIATION ASSETS

Association Assets

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

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

	Market Value	Actuarial Value	Valuation Assets*
Value of Assets at 6/30/98	\$ 1,175,799,086	\$ 1,005,060,892	\$ 992,314,161
Contributions			
Employer and Member	\$ 53,875,654	\$ 53,875,654	\$ 53,875,654
Benefits Paid to Participants	\$ 51,131,751	\$ 51,131,751	\$ 51,131,751
Expenses Paid	\$ 6,142,868	\$ 6,142,868	\$ 6,142,868
Investment Earnings	\$ 88,622,120	\$ 152,628,177	\$ 152,646,905
Value of Assets at 6/30/99	\$ 1,261,022,241	\$ 1,154,290,104	\$ 1,141,562,101
NET RATE OF RETURN	7.01%	14.55%	14.74%

* Valuation asset is calculated before the Board's decision to establish \$32,145,000 to offset future contingent Ventura liabilities. The valuation asset net of the Ventura reserve is \$1,109,417,000

The 14.7% rate of return on the valuation assets is more than the 8.00% rate assumed for the prior year. This results in a reduction in contribution rates, all else being equal.

APPENDICES

APPENDIX A

MAJOR PROVISIONS OF THE PRESENT SYSTEM

Benefit Sections 31676.1, 31497.3 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, 1999, and as adopted by San Mateo County.

Membership

Employees hired after July 6, 1980 become members under Plan 2. General Plan 3 members can elect membership under Plan 2 after 5 years of service. Probation Officers in 1990 were given the choice of remaining in the General Plan or electing Safety status for future service under a new Probation Plan. There is a new General, Safety and Probation Plan 4 for all new employees.

Final Average Salary

Final average salary (FAS) is defined as the highest 12 consecutive months of compensation earnable for General and Safety Plan 1 and 2 members. FAS for General Plan 3 and all Plan 4 members and Probation Officers is based on the highest 36 consecutive months.

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 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

(a) Plan 1, Plan 2 and Plan 4

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 is a percentage of monthly FAS per year of service, depending on age at retirement and is illustrated below for typical ages.

PERCENTAGE OF FINAL AVERAGE SALARY
(ROUNDED)

<u>Age</u>	<u>General</u>	<u>Safety and Probation</u>
50	1.18%	2.00%
55	1.49%	2.62%
60	1.92%	2.62%
62	2.09%	2.62%
65 and over	2.43%	2.62%

(b) Plan 3

Members with 10 years of service, who have attained the age of 55, are eligible to retire.

Benefit

The percentage of monthly FAS per year of service, depending on age at retirement, is illustrated below for typical ages.

<u>Age</u>	<u>Percentage*</u>
55	0.74%
60	1.20%
62	1.46%
65 & over	2.00%

* One-half of these percentages is credited for years of service over 35. Percentages for ages below 65 are actuarially reduced and may change from time to time.

The benefit arrived at by using the percentages shown above will be reduced by using a Social Security offset formula shown below:

Social Security Offset = $1/35$ times County years of service times P.I.A. at age 65 (not greater than 100% P.I.A.) where P.I.A. is the Primary Insurance Amount from Social Security.

The maximum (Plan 3 benefit and P.I.A. combined) is 70% of final average salary for years of service less than 35 and is 80% of FAS for years of service greater than 35.

Disability Benefit

(a) Plan 1, Plan 2 and 4

Members with 5 years of service, regardless of age, are eligible for nonservice connected disability. The benefit is 1.5% (1.8% for Safety members) of FAS for each year of service. If this benefit does not equal $1/3$ of FAS, the benefit is increased by the above percentage of FAS for the years which would have been credited to age 65 for General members and age 55 for Safety members. The total benefit in this case cannot exceed $1/3$ of FAS.

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

(b) Plan 3

There is no disability benefit payable under the Retirement Plan until the member reaches age 65. At that time the benefit is calculated as a service retirement benefit counting years of service while disabled.

Death Benefit Before Retirement

(a) Plan 1, Plan 2 and Plan 4

In addition to the return of contributions, a lump sum 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 Association, based on the salary earned during the last 12 months preceding the members' death, but not to exceed six 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 FAS.

(b) Plan 3

No benefit is payable under the Retirement Plan on death before retirement.

Death Benefit After Retirement

(a) Plan 1, Plan 2 and Plan 4

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.

(b) Plan 3

50% of the member's allowance is continued to the surviving spouse for life.

Maximum Benefit

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

Cost of Living

The maximum increase in retirement allowance is 5% per year for General and Safety Plan 1 and 3% per year for Probation Plan 1 and all Plan 2. Plan 4 members will get a maximum of 2% per year. Increases are based on the annual change in the Consumer Price Index for the year ending December 31.

Contribution Rates

Member basic rates are based on a formula reflecting the age at entry into the Association. The rates are such as to provide an average annuity at age 60 of 1/120 of final average salary for General members under Plan 1, Plan 2 and Plan 4, and at age 50 of 1/100 of final average salary for Safety and Probation Officer members. The County is now paying 15% of certain Safety members' contributions on a nonrefundable basis. The members do not contribute towards the cost of living benefit.

The County rates are actuarially determined to provide for the balance of the contributions needed to fund the benefits promised under the Retirement System. In addition, it is paying one-half of contributions of management and confidential employees on a refundable basis.

APPENDIX B

SUMMARY OF ASSUMPTIONS AND FUNDING METHOD

Assumptions

Valuation Interest Rate	8.25%
Inflation Assumption	4.25%
Interest Rate Credited to Active Member Accounts	8.25%
Post-Retirement Mortality	
(a) Service General Males	1994 Group Annuity Mortality Table set forward 1 year (Male)
Females	1994 Group Annuity Mortality Table set back 1 year (Female)
Safety and Probation Members	1994 Group Annuity Mortality Table set forward 1 year (Male)
Beneficiaries	1994 Group Annuity Mortality Table set back 1 year (Female)
(b) Disability General	1981 General Disability Mortality Table set back 3 years
Safety and Probation	1981 Safety Disability Mortality Table set back 1 year
(c) For Employee Contribution Rate Purposes	1994 Group Annuity Mortality Table set forward 1 year (Female) for General Members 1994 Group Annuity Mortality Table set forward 1 year (Male) for Safety Members and Probation Officers
Pre-Retirement Mortality	Based upon the Experience Analysis as of 6/30/99
Withdrawal Rates	Based upon the Experience Analysis as of 6/30/99

Disability Rates	Based upon the Experience Analysis as of 6/30/99
Service Retirement Rates	Based upon the Experience Analysis as of 6/30/99
Salary Scales	Total increases of 6.25% per year reflecting approximately 4.25% for inflation and approximately 2.00% for merit and longevity
Value of Assets for Contribution Rate Purposes	Actuarial Value as described in Actuarial Valuation Methods Section

Funding Method

The County's liability is being funded on the Entry Age Normal Method with an Unfunded Actuarial Accrued Liability (UAAL). The current amortization period for the UAAL is 12½years from the valuation date.

Following directions contained in the January Board resolution, we have established a reserve of \$32,145,000 in order to offset any future contingent Ventura liabilities and to maintain the employer's contribution rates at level established at the June 30, 1998 valuation. The "same" employer contribution rates were developed using the following steps:

3. Employer normal cost contribution rates were calculated using assumptions adopted by the Board for the June 30, 1999 valuation.
4. Employer's contribution rates to the unfunded actuarial accrued liability were calculated by taking the difference between the total employer contribution rates established at the June 30, 1998 valuation and the normal cost rates as of June 30, 1999 determined in item 1.

The result of this approach is to distribute assets among the membership categories. The assets allocated to a particular category are such that the unfunded actuarial accrued liability created for that category, when amortized over 12½years equals the difference between last year's rate and the new normal cost. These asset balances will be rolled forward next year with cash flow and earnings.

EXHIBIT 1

**PROBABILITIES OF SEPARATION PRIOR TO RETIREMENT
GENERAL PLAN 1 MALE MEMBERS**

Age	Withdrawal 0 <= X < 1	Withdrawal 1 <= X < 2	Withdrawal 2 <= X < 3	Withdrawal 3 <= X < 4	Withdrawal 4 <= X < 5	Withdrawal X >= 5	Terminated Vested	Non-Duty Disability	Duty Disability	Non-Duty Death	Duty Death	Service Retirement
<= 20	0.1460	0.1460	0.1460	0.1460	0.1460	0.1460	0.0000	0.0000	0.0000	0.0002	0.0001	0.0000
21	0.1440	0.1440	0.1440	0.1440	0.1440	0.1440	0.0000	0.0000	0.0000	0.0002	0.0001	0.0000
22	0.1420	0.1420	0.1420	0.1420	0.1420	0.1420	0.0000	0.0000	0.0000	0.0002	0.0001	0.0000
23	0.1400	0.1400	0.1400	0.1400	0.1400	0.1400	0.0000	0.0000	0.0000	0.0002	0.0001	0.0000
24	0.1370	0.1370	0.1370	0.1370	0.1370	0.1370	0.0000	0.0000	0.0000	0.0002	0.0001	0.0000
25	0.1340	0.1340	0.1340	0.1340	0.1340	0.1340	0.0085	0.0003	0.0000	0.0003	0.0001	0.0000
26	0.1310	0.1310	0.1310	0.1310	0.1310	0.1310	0.0085	0.0003	0.0000	0.0003	0.0001	0.0000
27	0.1280	0.1280	0.1280	0.1280	0.1280	0.1280	0.0090	0.0003	0.0001	0.0003	0.0001	0.0000
28	0.1250	0.1250	0.1250	0.1250	0.1250	0.1250	0.0090	0.0003	0.0001	0.0003	0.0001	0.0000
29	0.1210	0.1210	0.1210	0.1210	0.1210	0.1210	0.0095	0.0003	0.0001	0.0003	0.0001	0.0000
30	0.1170	0.1170	0.1170	0.1170	0.1170	0.1170	0.0098	0.0003	0.0002	0.0003	0.0001	0.0000
31	0.1120	0.1120	0.1120	0.1120	0.1120	0.1120	0.0103	0.0003	0.0002	0.0004	0.0001	0.0000
32	0.1050	0.1050	0.1050	0.1050	0.1050	0.1050	0.0108	0.0004	0.0002	0.0004	0.0001	0.0000
33	0.0960	0.0960	0.0960	0.0960	0.0960	0.0927	0.0113	0.0004	0.0003	0.0005	0.0001	0.0000
34	0.0860	0.0860	0.0860	0.0860	0.0860	0.0800	0.0123	0.0005	0.0003	0.0005	0.0001	0.0000
35	0.0760	0.0760	0.0760	0.0760	0.0760	0.0727	0.0130	0.0006	0.0003	0.0005	0.0001	0.0000
36	0.0650	0.0650	0.0650	0.0650	0.0650	0.0597	0.0137	0.0007	0.0004	0.0006	0.0001	0.0000
37	0.0550	0.0550	0.0550	0.0550	0.0550	0.0485	0.0144	0.0008	0.0005	0.0006	0.0001	0.0000
38	0.0460	0.0460	0.0460	0.0460	0.0460	0.0386	0.0152	0.0009	0.0006	0.0006	0.0001	0.0000
39	0.0380	0.0380	0.0380	0.0380	0.0380	0.0301	0.0159	0.0010	0.0007	0.0006	0.0001	0.0000
40	0.0300	0.0300	0.0300	0.0300	0.0300	0.0176	0.0166	0.0010	0.0008	0.0006	0.0001	0.0000
41	0.0240	0.0240	0.0240	0.0240	0.0240	0.0133	0.0170	0.0011	0.0009	0.0007	0.0001	0.0000
42	0.0200	0.0200	0.0200	0.0200	0.0200	0.0103	0.0170	0.0013	0.0010	0.0008	0.0001	0.0000
43	0.0180	0.0180	0.0180	0.0180	0.0180	0.0088	0.0168	0.0014	0.0010	0.0009	0.0001	0.0000
44	0.0160	0.0160	0.0160	0.0160	0.0160	0.0074	0.0165	0.0016	0.0011	0.0010	0.0002	0.0000
45	0.0140	0.0140	0.0140	0.0140	0.0140	0.0050	0.0157	0.0018	0.0012	0.0012	0.0002	0.0000
46	0.0120	0.0120	0.0120	0.0120	0.0120	0.0040	0.0150	0.0020	0.0012	0.0014	0.0002	0.0000
47	0.0100	0.0100	0.0100	0.0100	0.0100	0.0031	0.0142	0.0021	0.0013	0.0016	0.0002	0.0000
48	0.0090	0.0090	0.0090	0.0090	0.0090	0.0027	0.0134	0.0023	0.0013	0.0018	0.0002	0.0000
49	0.0080	0.0080	0.0080	0.0080	0.0080	0.0023	0.0126	0.0025	0.0013	0.0020	0.0002	0.0000
50	0.0070	0.0070	0.0070	0.0070	0.0070	0.0000	0.0000	0.0026	0.0013	0.0022	0.0002	0.0107
51	0.0060	0.0060	0.0060	0.0060	0.0060	0.0000	0.0000	0.0028	0.0013	0.0024	0.0002	0.0082
52	0.0050	0.0050	0.0050	0.0050	0.0050	0.0000	0.0000	0.0030	0.0013	0.0026	0.0003	0.0056
53	0.0040	0.0040	0.0040	0.0040	0.0040	0.0000	0.0000	0.0031	0.0013	0.0028	0.0003	0.0065
54	0.0040	0.0040	0.0040	0.0040	0.0040	0.0000	0.0000	0.0033	0.0013	0.0030	0.0003	0.0088
55	0.0030	0.0030	0.0030	0.0030	0.0030	0.0000	0.0000	0.0035	0.0014	0.0032	0.0003	0.0336
56	0.0020	0.0020	0.0020	0.0020	0.0020	0.0000	0.0000	0.0036	0.0015	0.0034	0.0003	0.0446
57	0.0020	0.0020	0.0020	0.0020	0.0020	0.0000	0.0000	0.0038	0.0016	0.0036	0.0004	0.0562
58	0.0010	0.0010	0.0010	0.0010	0.0010	0.0000	0.0000	0.0040	0.0019	0.0038	0.0004	0.0663
59	0.0010	0.0010	0.0010	0.0010	0.0010	0.0000	0.0000	0.0042	0.0022	0.0040	0.0004	0.0762
60	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0043	0.0025	0.0042	0.0004	0.0835
61	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0045	0.0028	0.0044	0.0004	0.0863
62	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0047	0.0032	0.0046	0.0005	0.2500
63	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0048	0.0038	0.0048	0.0005	0.1809
64	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0050	0.0044	0.0050	0.0005	0.2248
65	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0052	0.0005	0.5000
66	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0056	0.0005	0.5000
67	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0060	0.0006	0.7500
68	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0065	0.0006	0.8500
69	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0070	0.0006	0.9500
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

EXHIBIT 1

**PROBABILITIES OF SEPARATION PRIOR TO RETIREMENT
GENERAL PLAN 1 FEMALE MEMBERS**

Age	Withdrawal 0 <= X < 1	Withdrawal 1 <= X < 2	Withdrawal 2 <= X < 3	Withdrawal 3 <= X < 4	Withdrawal 4 <= X < 5	Withdrawal X >= 5	Terminated Vested	Non-Duty Disability	Duty Disability	Non-Duty Death	Duty Death	Service Retirement
<= 20	0.1540	0.1540	0.1540	0.1540	0.1540	0.1540	0.0000	0.0000	0.0000	0.0002	0.0000	0.0000
21	0.1471	0.1471	0.1471	0.1471	0.1471	0.1471	0.0000	0.0000	0.0000	0.0002	0.0000	0.0000
22	0.1401	0.1401	0.1401	0.1401	0.1401	0.1401	0.0000	0.0000	0.0000	0.0002	0.0000	0.0000
23	0.1332	0.1332	0.1332	0.1332	0.1332	0.1332	0.0000	0.0000	0.0000	0.0002	0.0000	0.0000
24	0.1263	0.1263	0.1263	0.1263	0.1263	0.1263	0.0000	0.0000	0.0000	0.0002	0.0000	0.0000
25	0.1194	0.1194	0.1194	0.1194	0.1194	0.1194	0.0035	0.0001	0.0000	0.0003	0.0000	0.0000
26	0.1124	0.1124	0.1124	0.1124	0.1124	0.1124	0.0040	0.0001	0.0000	0.0003	0.0000	0.0000
27	0.1055	0.1055	0.1055	0.1055	0.1055	0.1055	0.0045	0.0002	0.0001	0.0003	0.0000	0.0000
28	0.0986	0.0986	0.0986	0.0986	0.0986	0.0986	0.0055	0.0002	0.0001	0.0003	0.0000	0.0000
29	0.0916	0.0916	0.0916	0.0916	0.0916	0.0916	0.0070	0.0002	0.0001	0.0003	0.0000	0.0000
30	0.0847	0.0847	0.0847	0.0847	0.0847	0.0847	0.0080	0.0002	0.0002	0.0003	0.0000	0.0000
31	0.0762	0.0762	0.0762	0.0762	0.0762	0.0762	0.0094	0.0002	0.0002	0.0003	0.0000	0.0000
32	0.0676	0.0676	0.0676	0.0676	0.0676	0.0676	0.0113	0.0002	0.0002	0.0003	0.0000	0.0000
33	0.0591	0.0591	0.0591	0.0591	0.0591	0.0565	0.0132	0.0003	0.0003	0.0004	0.0000	0.0000
34	0.0520	0.0520	0.0520	0.0520	0.0520	0.0474	0.0151	0.0003	0.0003	0.0004	0.0000	0.0000
35	0.0461	0.0461	0.0461	0.0461	0.0461	0.0400	0.0180	0.0004	0.0003	0.0005	0.0000	0.0000
36	0.0402	0.0402	0.0402	0.0402	0.0402	0.0331	0.0190	0.0004	0.0004	0.0005	0.0000	0.0000
37	0.0344	0.0344	0.0344	0.0344	0.0344	0.0268	0.0200	0.0005	0.0005	0.0005	0.0000	0.0000
38	0.0285	0.0285	0.0285	0.0285	0.0285	0.0202	0.0200	0.0006	0.0006	0.0005	0.0000	0.0000
39	0.0227	0.0227	0.0227	0.0227	0.0227	0.0145	0.0190	0.0006	0.0007	0.0006	0.0000	0.0000
40	0.0168	0.0168	0.0168	0.0168	0.0168	0.0096	0.0188	0.0006	0.0008	0.0005	0.0000	0.0000
41	0.0157	0.0157	0.0157	0.0157	0.0157	0.0079	0.0172	0.0006	0.0009	0.0005	0.0000	0.0000
42	0.0145	0.0145	0.0145	0.0145	0.0145	0.0063	0.0156	0.0007	0.0010	0.0006	0.0000	0.0000
43	0.0138	0.0138	0.0138	0.0138	0.0138	0.0067	0.0144	0.0010	0.0010	0.0006	0.0000	0.0000
44	0.0134	0.0134	0.0134	0.0134	0.0134	0.0071	0.0132	0.0014	0.0011	0.0007	0.0000	0.0000
45	0.0126	0.0126	0.0126	0.0126	0.0126	0.0073	0.0119	0.0022	0.0012	0.0005	0.0000	0.0000
46	0.0118	0.0118	0.0118	0.0118	0.0118	0.0075	0.0107	0.0030	0.0012	0.0006	0.0000	0.0000
47	0.0107	0.0107	0.0107	0.0107	0.0107	0.0073	0.0094	0.0039	0.0013	0.0007	0.0000	0.0000
48	0.0099	0.0099	0.0099	0.0099	0.0099	0.0075	0.0089	0.0037	0.0013	0.0007	0.0000	0.0000
49	0.0092	0.0092	0.0092	0.0092	0.0092	0.0076	0.0080	0.0034	0.0013	0.0008	0.0000	0.0000
50	0.0084	0.0084	0.0084	0.0084	0.0084	0.0000	0.0079	0.0030	0.0013	0.0009	0.0000	0.0327
51	0.0076	0.0076	0.0076	0.0076	0.0076	0.0000	0.0076	0.0021	0.0013	0.0010	0.0000	0.0269
52	0.0069	0.0069	0.0069	0.0069	0.0069	0.0000	0.0075	0.0011	0.0013	0.0012	0.0000	0.0210
53	0.0061	0.0061	0.0061	0.0061	0.0061	0.0000	0.0074	0.0012	0.0013	0.0013	0.0000	0.0233
54	0.0054	0.0054	0.0054	0.0054	0.0054	0.0000	0.0072	0.0013	0.0013	0.0015	0.0000	0.0308
55	0.0046	0.0046	0.0046	0.0046	0.0046	0.0000	0.0071	0.0014	0.0014	0.0016	0.0000	0.0331
56	0.0038	0.0038	0.0038	0.0038	0.0038	0.0000	0.0068	0.0015	0.0015	0.0018	0.0000	0.0425
57	0.0031	0.0031	0.0031	0.0031	0.0031	0.0000	0.0061	0.0015	0.0016	0.0019	0.0000	0.0458
58	0.0023	0.0023	0.0023	0.0023	0.0023	0.0000	0.0054	0.0016	0.0019	0.0021	0.0000	0.0561
59	0.0019	0.0019	0.0019	0.0019	0.0019	0.0000	0.0047	0.0018	0.0022	0.0022	0.0000	0.0766
60	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0032	0.0019	0.0025	0.0024	0.0000	0.0804
61	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0026	0.0020	0.0028	0.0025	0.0000	0.0892
62	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0021	0.0021	0.0032	0.0027	0.0000	0.2449
63	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0016	0.0025	0.0038	0.0028	0.0000	0.2266
64	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0011	0.0029	0.0044	0.0030	0.0000	0.2083
65	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0031	0.0000	0.3505
66	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0033	0.0000	0.2641
67	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0035	0.0000	0.2832
68	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0036	0.0000	0.4484
69	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0038	0.0000	0.5765
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

EXHIBIT 1

**PROBABILITIES OF SEPARATION PRIOR TO RETIREMENT
GENERAL PLANS 2 AND 4 MALE MEMBERS**

Age	Withdrawal 0 <= X < 1	Withdrawal 1 <= X < 2	Withdrawal 2 <= X < 3	Withdrawal 3 <= X < 4	Withdrawal 4 <= X < 5	Withdrawal X >= 5	Terminated Vested	Non-Duty Disability	Duty Disability	Non-Duty Death	Duty Death	Service Retirement
<= 20	0.1323	0.0900	0.0800	0.0700	0.0400	0.0400	0.0000	0.0000	0.0000	0.0002	0.0001	0.0000
21	0.1323	0.0900	0.0800	0.0700	0.0400	0.0400	0.0000	0.0000	0.0000	0.0002	0.0001	0.0000
22	0.1323	0.0900	0.0800	0.0700	0.0400	0.0400	0.0000	0.0000	0.0000	0.0002	0.0001	0.0000
23	0.1323	0.0900	0.0800	0.0700	0.0400	0.0400	0.0000	0.0000	0.0000	0.0002	0.0001	0.0000
24	0.1323	0.0900	0.0800	0.0700	0.0400	0.0400	0.0000	0.0000	0.0000	0.0002	0.0001	0.0000
25	0.1323	0.0900	0.0800	0.0700	0.0400	0.0400	0.0085	0.0003	0.0000	0.0003	0.0001	0.0000
26	0.1323	0.0900	0.0800	0.0700	0.0400	0.0400	0.0085	0.0003	0.0000	0.0003	0.0001	0.0000
27	0.1323	0.0900	0.0800	0.0700	0.0400	0.0400	0.0090	0.0003	0.0001	0.0003	0.0001	0.0000
28	0.1323	0.0900	0.0800	0.0700	0.0400	0.0400	0.0090	0.0003	0.0001	0.0003	0.0001	0.0000
29	0.1323	0.0900	0.0800	0.0700	0.0400	0.0400	0.0095	0.0003	0.0001	0.0003	0.0001	0.0000
30	0.1323	0.0900	0.0800	0.0700	0.0400	0.0400	0.0100	0.0003	0.0002	0.0003	0.0001	0.0000
31	0.1323	0.0900	0.0800	0.0700	0.0400	0.0400	0.0105	0.0003	0.0002	0.0004	0.0001	0.0000
32	0.1323	0.0900	0.0800	0.0700	0.0400	0.0400	0.0110	0.0004	0.0002	0.0004	0.0001	0.0000
33	0.1323	0.0900	0.0800	0.0700	0.0400	0.0400	0.0115	0.0004	0.0003	0.0005	0.0001	0.0000
34	0.1323	0.0900	0.0800	0.0700	0.0400	0.0400	0.0125	0.0005	0.0003	0.0005	0.0001	0.0000
35	0.1323	0.0900	0.0800	0.0700	0.0400	0.0400	0.0135	0.0005	0.0003	0.0005	0.0001	0.0000
36	0.1323	0.0900	0.0800	0.0700	0.0400	0.0400	0.0160	0.0006	0.0004	0.0006	0.0001	0.0000
37	0.1323	0.0900	0.0800	0.0700	0.0400	0.0350	0.0180	0.0006	0.0005	0.0006	0.0001	0.0000
38	0.1323	0.0900	0.0800	0.0700	0.0400	0.0300	0.0195	0.0007	0.0006	0.0006	0.0001	0.0000
39	0.1323	0.0900	0.0800	0.0700	0.0400	0.0250	0.0205	0.0009	0.0007	0.0006	0.0001	0.0000
40	0.1323	0.0900	0.0800	0.0700	0.0400	0.0200	0.0210	0.0010	0.0008	0.0006	0.0001	0.0000
41	0.1323	0.0900	0.0800	0.0700	0.0400	0.0175	0.0215	0.0011	0.0009	0.0007	0.0001	0.0000
42	0.1323	0.0900	0.0800	0.0700	0.0400	0.0150	0.0215	0.0012	0.0010	0.0008	0.0001	0.0000
43	0.1323	0.0900	0.0800	0.0700	0.0400	0.0150	0.0220	0.0013	0.0011	0.0009	0.0001	0.0000
44	0.1323	0.0900	0.0800	0.0700	0.0400	0.0150	0.0230	0.0014	0.0012	0.0010	0.0002	0.0000
45	0.1323	0.0900	0.0800	0.0700	0.0400	0.0150	0.0240	0.0015	0.0013	0.0012	0.0002	0.0000
46	0.1323	0.0900	0.0800	0.0700	0.0400	0.0150	0.0250	0.0016	0.0014	0.0014	0.0002	0.0000
47	0.1323	0.0900	0.0800	0.0700	0.0400	0.0150	0.0260	0.0017	0.0015	0.0016	0.0002	0.0000
48	0.1323	0.0900	0.0800	0.0700	0.0400	0.0150	0.0250	0.0018	0.0016	0.0018	0.0002	0.0000
49	0.1323	0.0900	0.0800	0.0700	0.0400	0.0150	0.0245	0.0020	0.0017	0.0020	0.0002	0.0000
50	0.1323	0.0900	0.0800	0.0700	0.0400	0.0000	0.0245	0.0022	0.0018	0.0022	0.0002	0.0200
51	0.1323	0.0900	0.0800	0.0700	0.0400	0.0000	0.0225	0.0024	0.0019	0.0024	0.0002	0.0200
52	0.1323	0.0900	0.0800	0.0700	0.0400	0.0000	0.0200	0.0026	0.0020	0.0026	0.0003	0.0200
53	0.1323	0.0900	0.0800	0.0700	0.0400	0.0000	0.0175	0.0028	0.0021	0.0028	0.0003	0.0200
54	0.1323	0.0900	0.0800	0.0700	0.0400	0.0000	0.0140	0.0030	0.0022	0.0030	0.0003	0.0200
55	0.1323	0.0900	0.0800	0.0700	0.0400	0.0000	0.0120	0.0032	0.0024	0.0032	0.0003	0.0200
56	0.1323	0.0900	0.0800	0.0700	0.0400	0.0000	0.0110	0.0034	0.0027	0.0034	0.0003	0.0211
57	0.1323	0.0900	0.0800	0.0700	0.0400	0.0000	0.0100	0.0036	0.0030	0.0036	0.0004	0.0221
58	0.1323	0.0900	0.0800	0.0700	0.0400	0.0000	0.0090	0.0038	0.0033	0.0038	0.0004	0.0241
59	0.1323	0.0900	0.0800	0.0700	0.0400	0.0000	0.0080	0.0040	0.0036	0.0040	0.0004	0.0256
60	0.1323	0.0900	0.0800	0.0700	0.0400	0.0000	0.0070	0.0045	0.0039	0.0042	0.0004	0.0750
61	0.1323	0.0900	0.0800	0.0700	0.0400	0.0000	0.0060	0.0049	0.0042	0.0044	0.0004	0.1000
62	0.1323	0.0900	0.0800	0.0700	0.0400	0.0000	0.0050	0.0052	0.0046	0.0046	0.0005	0.1500
63	0.1323	0.0900	0.0800	0.0700	0.0400	0.0000	0.0040	0.0055	0.0050	0.0048	0.0005	0.1000
64	0.1323	0.0900	0.0800	0.0700	0.0400	0.0000	0.0030	0.0058	0.0054	0.0050	0.0005	0.2500
65	0.1323	0.0900	0.0800	0.0700	0.0400	0.0000	0.0000	0.0000	0.0000	0.0052	0.0005	0.3000
66	0.1323	0.0900	0.0800	0.0700	0.0400	0.0000	0.0000	0.0000	0.0000	0.0056	0.0005	0.1000
67	0.1323	0.0900	0.0800	0.0700	0.0400	0.0000	0.0000	0.0000	0.0000	0.0060	0.0006	0.1500
68	0.1323	0.0900	0.0800	0.0700	0.0400	0.0000	0.0000	0.0000	0.0000	0.0065	0.0006	0.2000
69	0.1323	0.0900	0.0800	0.0700	0.0400	0.0000	0.0000	0.0000	0.0000	0.0070	0.0006	0.2500
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

EXHIBIT 1

PROBABILITIES OF SEPARATION PRIOR TO RETIREMENT
GENERAL PLANS 2 AND 4 FEMALE MEMBERS

Age	Withdrawal 0 <= X < 1	Withdrawal 1 <= X < 2	Withdrawal 2 <= X < 3	Withdrawal 3 <= X < 4	Withdrawal 4 <= X < 5	Withdrawal X >= 5	Terminated Vested	Non-Duty Disability	Duty Disability	Non-Duty Death	Duty Death	Service Retirement
<= 20	0.1153	0.1097	0.0882	0.0600	0.0493	0.0493	0.0000	0.0000	0.0000	0.0002	0.0000	0.0000
21	0.1153	0.1097	0.0882	0.0600	0.0493	0.0493	0.0000	0.0000	0.0000	0.0002	0.0000	0.0000
22	0.1153	0.1097	0.0882	0.0600	0.0493	0.0493	0.0000	0.0000	0.0000	0.0002	0.0000	0.0000
23	0.1153	0.1097	0.0882	0.0600	0.0493	0.0493	0.0000	0.0000	0.0000	0.0002	0.0000	0.0000
24	0.1153	0.1097	0.0882	0.0600	0.0493	0.0493	0.0000	0.0000	0.0000	0.0002	0.0000	0.0000
25	0.1153	0.1097	0.0882	0.0600	0.0493	0.0493	0.0085	0.0001	0.0000	0.0003	0.0000	0.0000
26	0.1153	0.1097	0.0882	0.0600	0.0493	0.0493	0.0085	0.0001	0.0000	0.0003	0.0000	0.0000
27	0.1153	0.1097	0.0882	0.0600	0.0493	0.0493	0.0090	0.0002	0.0001	0.0003	0.0000	0.0000
28	0.1153	0.1097	0.0882	0.0600	0.0493	0.0493	0.0090	0.0002	0.0001	0.0003	0.0000	0.0000
29	0.1153	0.1097	0.0882	0.0600	0.0493	0.0493	0.0095	0.0002	0.0001	0.0003	0.0000	0.0000
30	0.1153	0.1097	0.0882	0.0600	0.0493	0.0476	0.0125	0.0003	0.0001	0.0003	0.0000	0.0000
31	0.1153	0.1097	0.0882	0.0600	0.0493	0.0468	0.0150	0.0003	0.0001	0.0003	0.0000	0.0000
32	0.1153	0.1097	0.0882	0.0600	0.0493	0.0450	0.0160	0.0003	0.0001	0.0003	0.0000	0.0000
33	0.1153	0.1097	0.0882	0.0600	0.0493	0.0395	0.0170	0.0007	0.0003	0.0004	0.0000	0.0000
34	0.1153	0.1097	0.0882	0.0600	0.0493	0.0349	0.0175	0.0010	0.0006	0.0004	0.0000	0.0000
35	0.1153	0.1097	0.0882	0.0600	0.0493	0.0240	0.0200	0.0016	0.0010	0.0005	0.0000	0.0000
36	0.1153	0.1097	0.0882	0.0600	0.0493	0.0240	0.0200	0.0020	0.0012	0.0005	0.0000	0.0000
37	0.1153	0.1097	0.0882	0.0600	0.0493	0.0240	0.0200	0.0028	0.0015	0.0005	0.0000	0.0000
38	0.1153	0.1097	0.0882	0.0600	0.0493	0.0240	0.0175	0.0029	0.0018	0.0005	0.0000	0.0000
39	0.1153	0.1097	0.0882	0.0600	0.0493	0.0240	0.0150	0.0030	0.0020	0.0006	0.0000	0.0000
40	0.1153	0.1097	0.0882	0.0600	0.0493	0.0240	0.0125	0.0030	0.0020	0.0005	0.0000	0.0000
41	0.1153	0.1097	0.0882	0.0600	0.0493	0.0240	0.0125	0.0030	0.0020	0.0005	0.0000	0.0000
42	0.1153	0.1097	0.0882	0.0600	0.0493	0.0240	0.0125	0.0030	0.0020	0.0006	0.0000	0.0000
43	0.1153	0.1097	0.0882	0.0600	0.0493	0.0240	0.0125	0.0030	0.0020	0.0006	0.0000	0.0000
44	0.1153	0.1097	0.0882	0.0600	0.0493	0.0240	0.0125	0.0030	0.0020	0.0007	0.0000	0.0000
45	0.1153	0.1097	0.0882	0.0600	0.0493	0.0227	0.0125	0.0030	0.0020	0.0005	0.0000	0.0000
46	0.1153	0.1097	0.0882	0.0600	0.0493	0.0211	0.0125	0.0036	0.0020	0.0006	0.0000	0.0000
47	0.1153	0.1097	0.0882	0.0600	0.0493	0.0195	0.0125	0.0042	0.0020	0.0007	0.0000	0.0000
48	0.1153	0.1097	0.0882	0.0600	0.0493	0.0180	0.0125	0.0042	0.0020	0.0007	0.0000	0.0000
49	0.1153	0.1097	0.0882	0.0600	0.0493	0.0166	0.0125	0.0042	0.0020	0.0008	0.0000	0.0000
50	0.1153	0.1097	0.0882	0.0600	0.0493	0.0000	0.0125	0.0042	0.0020	0.0009	0.0000	0.0160
51	0.1153	0.1097	0.0882	0.0600	0.0493	0.0000	0.0125	0.0042	0.0021	0.0010	0.0000	0.0160
52	0.1153	0.1097	0.0882	0.0600	0.0493	0.0000	0.0125	0.0042	0.0022	0.0012	0.0000	0.0160
53	0.1153	0.1097	0.0882	0.0600	0.0493	0.0000	0.0125	0.0042	0.0023	0.0013	0.0000	0.0160
54	0.1153	0.1097	0.0882	0.0600	0.0493	0.0000	0.0125	0.0042	0.0024	0.0015	0.0000	0.0193
55	0.1153	0.1097	0.0882	0.0600	0.0493	0.0000	0.0120	0.0045	0.0025	0.0016	0.0000	0.0329
56	0.1153	0.1097	0.0882	0.0600	0.0493	0.0000	0.0110	0.0049	0.0030	0.0018	0.0000	0.0398
57	0.1153	0.1097	0.0882	0.0600	0.0493	0.0000	0.0100	0.0053	0.0035	0.0019	0.0000	0.0406
58	0.1153	0.1097	0.0882	0.0600	0.0493	0.0000	0.0050	0.0057	0.0037	0.0021	0.0000	0.0416
59	0.1153	0.1097	0.0882	0.0600	0.0493	0.0000	0.0025	0.0061	0.0040	0.0022	0.0000	0.0484
60	0.1153	0.1097	0.0882	0.0600	0.0493	0.0000	0.0000	0.0073	0.0056	0.0024	0.0000	0.0568
61	0.1153	0.1097	0.0882	0.0600	0.0493	0.0000	0.0000	0.0090	0.0071	0.0025	0.0000	0.0533
62	0.1153	0.1097	0.0882	0.0600	0.0493	0.0000	0.0000	0.0109	0.0085	0.0027	0.0000	0.1244
63	0.1153	0.1097	0.0882	0.0600	0.0493	0.0000	0.0000	0.0110	0.0097	0.0028	0.0000	0.1311
64	0.1153	0.1097	0.0882	0.0600	0.0493	0.0000	0.0000	0.0115	0.0107	0.0030	0.0000	0.1377
65	0.1153	0.1097	0.0882	0.0600	0.0493	0.0000	0.0000	0.0000	0.0000	0.0031	0.0000	0.2500
66	0.1153	0.1097	0.0882	0.0600	0.0493	0.0000	0.0000	0.0000	0.0000	0.0033	0.0000	0.1545
67	0.1153	0.1097	0.0882	0.0600	0.0493	0.0000	0.0000	0.0000	0.0000	0.0035	0.0000	0.1935
68	0.1153	0.1097	0.0882	0.0600	0.0493	0.0000	0.0000	0.0000	0.0000	0.0036	0.0000	0.2046
69	0.1153	0.1097	0.0882	0.0600	0.0493	0.0000	0.0000	0.0000	0.0000	0.0038	0.0000	0.2630
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

EXHIBIT 1

**PROBABILITIES OF SEPARATION PRIOR TO RETIREMENT
GENERAL PLAN 3 MALE MEMBERS**

Age	Withdrawal 0 <= X < 1	Withdrawal 1 <= X < 2	Withdrawal 2 <= X < 3	Withdrawal 3 <= X < 4	Withdrawal 4 <= X < 5	Withdrawal X >= 5	Terminated Vested	Non-Duty Disability	Duty Disability	Non-Duty Death	Duty Death	Service Retirement
<= 20	0.3000	0.1387	0.1387	0.1387	0.0600	0.0400	0.0000	0.0000	0.0000	0.0002	0.0001	0.0000
21	0.3000	0.1387	0.1387	0.1387	0.0600	0.0400	0.0000	0.0000	0.0000	0.0002	0.0001	0.0000
22	0.3000	0.1387	0.1387	0.1387	0.0600	0.0400	0.0000	0.0000	0.0000	0.0002	0.0001	0.0000
23	0.3000	0.1387	0.1387	0.1387	0.0600	0.0400	0.0000	0.0000	0.0000	0.0002	0.0001	0.0000
24	0.3000	0.1387	0.1387	0.1387	0.0600	0.0400	0.0000	0.0000	0.0000	0.0002	0.0001	0.0000
25	0.3000	0.1387	0.1387	0.1387	0.0600	0.0400	0.0085	0.0002	0.0000	0.0003	0.0001	0.0000
26	0.3000	0.1387	0.1387	0.1387	0.0600	0.0400	0.0085	0.0002	0.0000	0.0003	0.0001	0.0000
27	0.3000	0.1387	0.1387	0.1387	0.0600	0.0400	0.0090	0.0002	0.0000	0.0003	0.0001	0.0000
28	0.3000	0.1387	0.1387	0.1387	0.0600	0.0400	0.0090	0.0002	0.0000	0.0003	0.0001	0.0000
29	0.3000	0.1387	0.1394	0.1394	0.0600	0.0400	0.0095	0.0002	0.0000	0.0003	0.0001	0.0000
30	0.3000	0.1387	0.1387	0.1387	0.0600	0.0400	0.0100	0.0002	0.0000	0.0003	0.0001	0.0000
31	0.3000	0.1387	0.1387	0.1387	0.0600	0.0400	0.0105	0.0002	0.0000	0.0004	0.0001	0.0000
32	0.3000	0.1387	0.1387	0.1387	0.0600	0.0400	0.0110	0.0002	0.0000	0.0004	0.0001	0.0000
33	0.3000	0.1387	0.1387	0.1387	0.0600	0.0400	0.0115	0.0002	0.0000	0.0005	0.0001	0.0000
34	0.3000	0.1387	0.1396	0.1396	0.0600	0.0400	0.0125	0.0002	0.0000	0.0005	0.0001	0.0000
35	0.3000	0.1387	0.1387	0.1387	0.0600	0.0400	0.0135	0.0003	0.0001	0.0005	0.0001	0.0000
36	0.3000	0.1387	0.1387	0.1387	0.0600	0.0400	0.0160	0.0004	0.0001	0.0006	0.0001	0.0000
37	0.3000	0.1387	0.1387	0.1387	0.0600	0.0350	0.0180	0.0004	0.0001	0.0006	0.0001	0.0000
38	0.3000	0.1387	0.1387	0.1387	0.0600	0.0300	0.0195	0.0005	0.0001	0.0006	0.0001	0.0000
39	0.3000	0.1387	0.1380	0.1380	0.0600	0.0250	0.0205	0.0005	0.0001	0.0006	0.0001	0.0000
40	0.3000	0.1387	0.1387	0.1387	0.0600	0.0200	0.0210	0.0006	0.0001	0.0006	0.0001	0.0000
41	0.3000	0.1387	0.1387	0.1387	0.0600	0.0175	0.0215	0.0006	0.0001	0.0007	0.0001	0.0000
42	0.3000	0.1387	0.1387	0.1387	0.0600	0.0150	0.0215	0.0007	0.0001	0.0008	0.0001	0.0000
43	0.3000	0.1387	0.1387	0.1387	0.0600	0.0150	0.0220	0.0008	0.0001	0.0009	0.0001	0.0000
44	0.3000	0.1387	0.1379	0.1379	0.0600	0.0150	0.0230	0.0009	0.0001	0.0010	0.0002	0.0000
45	0.3000	0.1387	0.1387	0.1387	0.0600	0.0150	0.0240	0.0010	0.0002	0.0012	0.0002	0.0000
46	0.3000	0.1387	0.1387	0.1387	0.0600	0.0150	0.0250	0.0011	0.0002	0.0014	0.0002	0.0000
47	0.3000	0.1387	0.1387	0.1387	0.0600	0.0150	0.0260	0.0012	0.0002	0.0016	0.0002	0.0000
48	0.3000	0.1387	0.1387	0.1387	0.0600	0.0150	0.0250	0.0014	0.0002	0.0018	0.0002	0.0000
49	0.3000	0.1387	0.1400	0.1400	0.0600	0.0150	0.0245	0.0015	0.0002	0.0020	0.0002	0.0000
50	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0245	0.0016	0.0002	0.0022	0.0002	0.0000
51	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0225	0.0018	0.0003	0.0024	0.0002	0.0000
52	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0200	0.0019	0.0004	0.0026	0.0003	0.0000
53	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0175	0.0021	0.0004	0.0028	0.0003	0.0000
54	0.3000	0.1387	0.1400	0.1400	0.0600	0.0000	0.0140	0.0023	0.0005	0.0030	0.0003	0.0000
55	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0120	0.0025	0.0005	0.0032	0.0003	0.0513
56	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0110	0.0027	0.0006	0.0034	0.0003	0.0660
57	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0100	0.0029	0.0006	0.0036	0.0004	0.0806
58	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0090	0.0032	0.0007	0.0038	0.0004	0.0953
59	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0080	0.0034	0.0008	0.0040	0.0004	0.1099
60	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0070	0.0038	0.0009	0.0042	0.0004	0.1200
61	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0060	0.0040	0.0010	0.0044	0.0004	0.1250
62	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0050	0.0042	0.0011	0.0046	0.0005	0.2500
63	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0040	0.0045	0.0012	0.0048	0.0005	0.2000
64	0.3000	0.1387	0.1414	0.1414	0.0600	0.0000	0.0030	0.0047	0.0013	0.0050	0.0005	0.2000
65	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0000	0.0000	0.0000	0.0052	0.0005	0.2553
66	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0000	0.0000	0.0000	0.0056	0.0005	0.2553
67	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0000	0.0000	0.0000	0.0060	0.0006	0.2918
68	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0000	0.0000	0.0000	0.0065	0.0006	0.3283
69	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0000	0.0000	0.0000	0.0070	0.0006	0.3647
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

Note: No withdrawal is assumed after a member has 10 years of service.

EXHIBIT 1

**PROBABILITIES OF SEPARATION PRIOR TO RETIREMENT
GENERAL PLAN 3 FEMALE MEMBERS**

Age	Withdrawal 0 <= X < 1	Withdrawal 1 <= X < 2	Withdrawal 2 <= X < 3	Withdrawal 3 <= X < 4	Withdrawal 4 <= X < 5	Withdrawal X >= 5	Terminated Vested	Non-Duty Disability	Duty Disability	Non-Duty Death	Duty Death	Service Retirement
<= 20	0.1500	0.1500	0.1000	0.1000	0.0400	0.1687	0.0000	0.0000	0.0000	0.0002	0.0000	0.0000
21	0.1500	0.1500	0.1000	0.1000	0.0400	0.1603	0.0000	0.0000	0.0000	0.0002	0.0000	0.0000
22	0.1500	0.1500	0.1000	0.1000	0.0400	0.1527	0.0000	0.0000	0.0000	0.0002	0.0000	0.0000
23	0.1500	0.1500	0.1000	0.1000	0.0400	0.1460	0.0000	0.0000	0.0000	0.0002	0.0000	0.0000
24	0.1500	0.1500	0.1000	0.1000	0.0400	0.1400	0.0000	0.0000	0.0000	0.0002	0.0000	0.0000
25	0.1500	0.1500	0.1000	0.1000	0.0400	0.1254	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000
26	0.1500	0.1500	0.1000	0.1000	0.0400	0.1214	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000
27	0.1500	0.1500	0.1000	0.1000	0.0400	0.1183	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000
28	0.1500	0.1500	0.1000	0.1000	0.0400	0.1160	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000
29	0.1500	0.1500	0.1000	0.1000	0.0400	0.1136	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000
30	0.1500	0.1500	0.1000	0.1000	0.0400	0.1080	0.0085	0.0001	0.0000	0.0003	0.0000	0.0000
31	0.1500	0.1500	0.1000	0.1000	0.0400	0.1024	0.0100	0.0001	0.0000	0.0004	0.0000	0.0000
32	0.1500	0.1500	0.1000	0.1000	0.0400	0.0968	0.0120	0.0001	0.0000	0.0004	0.0000	0.0000
33	0.1500	0.1500	0.1000	0.1000	0.0400	0.0911	0.0140	0.0001	0.0000	0.0005	0.0000	0.0000
34	0.1500	0.1500	0.1000	0.1000	0.0400	0.0855	0.0160	0.0001	0.0000	0.0005	0.0000	0.0000
35	0.1500	0.1500	0.1000	0.1000	0.0400	0.0799	0.0180	0.0002	0.0001	0.0005	0.0000	0.0000
36	0.1500	0.1500	0.1000	0.1000	0.0400	0.0743	0.0200	0.0002	0.0001	0.0006	0.0000	0.0000
37	0.1500	0.1500	0.1000	0.1000	0.0400	0.0687	0.0215	0.0002	0.0001	0.0006	0.0000	0.0000
38	0.1500	0.1500	0.1000	0.1000	0.0400	0.0631	0.0230	0.0002	0.0001	0.0006	0.0000	0.0000
39	0.1500	0.1500	0.1000	0.1000	0.0400	0.0574	0.0240	0.0002	0.0001	0.0006	0.0000	0.0000
40	0.1500	0.1500	0.1000	0.1000	0.0400	0.0518	0.0240	0.0002	0.0001	0.0006	0.0000	0.0000
41	0.1500	0.1500	0.1000	0.1000	0.0400	0.0462	0.0220	0.0002	0.0001	0.0007	0.0000	0.0000
42	0.1500	0.1500	0.1000	0.1000	0.0400	0.0406	0.0200	0.0003	0.0001	0.0008	0.0000	0.0000
43	0.1500	0.1500	0.1000	0.1000	0.0400	0.0350	0.0190	0.0004	0.0001	0.0009	0.0000	0.0000
44	0.1500	0.1500	0.1000	0.1000	0.0400	0.0294	0.0180	0.0005	0.0001	0.0010	0.0000	0.0000
45	0.1500	0.1500	0.1000	0.1000	0.0400	0.0238	0.0175	0.0006	0.0002	0.0012	0.0000	0.0000
46	0.1500	0.1500	0.1000	0.1000	0.0400	0.0211	0.0170	0.0006	0.0002	0.0014	0.0000	0.0000
47	0.1500	0.1500	0.1000	0.1000	0.0400	0.0188	0.0165	0.0008	0.0002	0.0016	0.0000	0.0000
48	0.1500	0.1500	0.1000	0.1000	0.0400	0.0166	0.0155	0.0008	0.0002	0.0018	0.0000	0.0000
49	0.1500	0.1500	0.1000	0.1000	0.0400	0.0143	0.0140	0.0009	0.0002	0.0020	0.0000	0.0000
50	0.1500	0.1500	0.1000	0.1000	0.0400	0.0157	0.0130	0.0010	0.0003	0.0022	0.0000	0.0000
51	0.1500	0.1500	0.1000	0.1000	0.0400	0.0160	0.0125	0.0011	0.0003	0.0024	0.0000	0.0000
52	0.1500	0.1500	0.1000	0.1000	0.0400	0.0170	0.0120	0.0012	0.0004	0.0026	0.0000	0.0000
53	0.1500	0.1500	0.1000	0.1000	0.0400	0.0180	0.0115	0.0014	0.0004	0.0028	0.0000	0.0000
54	0.1500	0.1500	0.1000	0.1000	0.0400	0.0190	0.0110	0.0017	0.0005	0.0030	0.0000	0.0000
55	0.1500	0.1500	0.1000	0.1000	0.0400	0.0200	0.0105	0.0018	0.0005	0.0032	0.0000	0.0229
56	0.1500	0.1500	0.1000	0.1000	0.0400	0.0200	0.0100	0.0021	0.0006	0.0034	0.0000	0.0204
57	0.1500	0.1500	0.1000	0.1000	0.0400	0.0200	0.0090	0.0022	0.0006	0.0036	0.0000	0.0137
58	0.1500	0.1500	0.1000	0.1000	0.0400	0.0200	0.0080	0.0023	0.0006	0.0038	0.0000	0.0166
59	0.1500	0.1500	0.1000	0.1000	0.0400	0.0200	0.0070	0.0025	0.0007	0.0040	0.0000	0.0225
60	0.1500	0.1500	0.1000	0.1000	0.0400	0.0200	0.0060	0.0027	0.0008	0.0042	0.0000	0.0317
61	0.1500	0.1500	0.1000	0.1000	0.0400	0.0200	0.0050	0.0028	0.0008	0.0044	0.0000	0.0350
62	0.1500	0.1500	0.1000	0.1000	0.0400	0.0200	0.0040	0.0029	0.0008	0.0046	0.0000	0.0957
63	0.1500	0.1500	0.1000	0.1000	0.0400	0.0200	0.0030	0.0031	0.0009	0.0048	0.0000	0.0886
64	0.1500	0.1500	0.1000	0.1000	0.0400	0.0200	0.0020	0.0033	0.0009	0.0050	0.0000	0.2000
65	0.1500	0.1500	0.1000	0.1000	0.0400	0.0200	0.0000	0.0000	0.0000	0.0052	0.0000	0.2500
66	0.1500	0.1500	0.1000	0.1000	0.0400	0.0200	0.0000	0.0000	0.0000	0.0056	0.0000	0.1158
67	0.1500	0.1500	0.1000	0.1000	0.0400	0.0200	0.0000	0.0000	0.0000	0.0060	0.0000	0.1244
68	0.1500	0.1500	0.1000	0.1000	0.0400	0.0200	0.0000	0.0000	0.0000	0.0065	0.0000	0.4540
69	0.1500	0.1500	0.1000	0.1000	0.0400	0.0200	0.0000	0.0000	0.0000	0.0070	0.0000	0.5837
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

Note: No withdrawal is assumed after a member has 10 years of service.

EXHIBIT 1

**PROBABILITIES OF SEPARATION PRIOR TO RETIREMENT
SAFETY AND PROBATION MEMBERS**

Age	Withdrawal 0 <= X < 1	Withdrawal 1 <= X < 2	Withdrawal 2 <= X < 3	Withdrawal 3 <= X < 4	Withdrawal 4 <= X < 5	Withdrawal X >= 5	Terminated Vested	Non-Duty Disability	Duty Disability	Non-Duty Death	Duty Death	Service Retirement
<= 20	0.1000	0.0799	0.0799	0.0799	0.0799	0.0130	0.0500	0.0000	0.0008	0.0002	0.0005	0.0000
21	0.1000	0.0754	0.0754	0.0754	0.0754	0.0130	0.0500	0.0000	0.0009	0.0002	0.0005	0.0000
22	0.1000	0.0709	0.0709	0.0709	0.0709	0.0130	0.0500	0.0000	0.0010	0.0002	0.0005	0.0000
23	0.1000	0.0663	0.0663	0.0663	0.0663	0.0130	0.0500	0.0000	0.0011	0.0002	0.0005	0.0000
24	0.1000	0.0618	0.0618	0.0618	0.0618	0.0130	0.0500	0.0000	0.0012	0.0002	0.0005	0.0000
25	0.1000	0.0474	0.0474	0.0474	0.0474	0.0130	0.0500	0.0002	0.0010	0.0003	0.0005	0.0000
26	0.1000	0.0449	0.0449	0.0449	0.0449	0.0130	0.0500	0.0002	0.0011	0.0003	0.0005	0.0000
27	0.1000	0.0424	0.0424	0.0424	0.0424	0.0130	0.0500	0.0002	0.0011	0.0004	0.0005	0.0000
28	0.1000	0.0411	0.0411	0.0411	0.0411	0.0130	0.0500	0.0002	0.0012	0.0004	0.0004	0.0000
29	0.1000	0.0399	0.0399	0.0399	0.0399	0.0130	0.0450	0.0002	0.0013	0.0004	0.0004	0.0000
30	0.1000	0.0369	0.0369	0.0369	0.0369	0.0130	0.0400	0.0003	0.0011	0.0003	0.0005	0.0000
31	0.1000	0.0357	0.0357	0.0357	0.0357	0.0130	0.0300	0.0003	0.0011	0.0004	0.0005	0.0000
32	0.1000	0.0345	0.0345	0.0345	0.0345	0.0129	0.0250	0.0004	0.0012	0.0003	0.0005	0.0000
33	0.1000	0.0333	0.0333	0.0333	0.0333	0.0129	0.0250	0.0004	0.0012	0.0004	0.0005	0.0000
34	0.1000	0.0321	0.0321	0.0321	0.0321	0.0129	0.0250	0.0005	0.0012	0.0004	0.0005	0.0000
35	0.1000	0.0310	0.0310	0.0310	0.0310	0.0129	0.0225	0.0004	0.0012	0.0004	0.0005	0.0000
36	0.1000	0.0299	0.0299	0.0299	0.0299	0.0128	0.0200	0.0005	0.0016	0.0004	0.0005	0.0000
37	0.1000	0.0289	0.0289	0.0289	0.0289	0.0128	0.0200	0.0006	0.0020	0.0004	0.0005	0.0000
38	0.1000	0.0278	0.0278	0.0278	0.0278	0.0128	0.0200	0.0007	0.0023	0.0004	0.0005	0.0000
39	0.1000	0.0267	0.0267	0.0267	0.0267	0.0128	0.0175	0.0008	0.0026	0.0004	0.0006	0.0000
40	0.1000	0.0257	0.0257	0.0257	0.0257	0.0127	0.0150	0.0009	0.0047	0.0004	0.0006	0.0000
41	0.1000	0.0214	0.0214	0.0214	0.0214	0.0127	0.0125	0.0010	0.0057	0.0004	0.0006	0.0000
42	0.1000	0.0172	0.0172	0.0172	0.0172	0.0127	0.0100	0.0010	0.0070	0.0005	0.0007	0.0000
43	0.1000	0.0129	0.0129	0.0129	0.0129	0.0110	0.0100	0.0011	0.0081	0.0005	0.0007	0.0000
44	0.1000	0.0086	0.0086	0.0086	0.0086	0.0102	0.0100	0.0011	0.0092	0.0006	0.0007	0.0000
45	0.1000	0.0025	0.0025	0.0025	0.0025	0.0093	0.0100	0.0012	0.0100	0.0006	0.0007	0.0000
46	0.1000	0.0019	0.0019	0.0019	0.0019	0.0085	0.0100	0.0012	0.0105	0.0007	0.0007	0.0000
47	0.1000	0.0019	0.0019	0.0019	0.0019	0.0077	0.0100	0.0012	0.0110	0.0008	0.0007	0.0000
48	0.1000	0.0013	0.0013	0.0013	0.0013	0.0069	0.0100	0.0012	0.0115	0.0008	0.0007	0.0000
49	0.1000	0.0013	0.0013	0.0013	0.0013	0.0060	0.0100	0.0012	0.0120	0.0008	0.0007	0.0000
50	0.1000	0.0013	0.0013	0.0013	0.0013	0.0000	0.0075	0.0012	0.0125	0.0009	0.0007	0.0362
51	0.1000	0.0013	0.0013	0.0013	0.0013	0.0000	0.0065	0.0012	0.0130	0.0009	0.0007	0.0239
52	0.1000	0.0007	0.0007	0.0007	0.0007	0.0000	0.0055	0.0015	0.0135	0.0009	0.0007	0.0261
53	0.1000	0.0007	0.0007	0.0007	0.0007	0.0000	0.0050	0.0020	0.0150	0.0010	0.0007	0.0384
54	0.1000	0.0007	0.0007	0.0007	0.0007	0.0000	0.0050	0.0030	0.0167	0.0012	0.0010	0.0527
55	0.1000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0050	0.0035	0.0175	0.0013	0.0011	0.2500
56	0.1000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0050	0.0036	0.0200	0.0014	0.0011	0.2500
57	0.1000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0050	0.0038	0.0225	0.0015	0.0012	0.2500
58	0.1000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0050	0.0040	0.0250	0.0017	0.0015	0.1500
59	0.1000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0050	0.0041	0.0275	0.0019	0.0000	0.1000
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

Exhibit II

RATIO OF CURRENT COMPENSATION TO COMPENSATION ANTICIPATED AT RETIREMENT AGE

Age	General Members	Safety and Probation Members
20	0.038	0.071
21	0.042	0.078
22	0.046	0.085
23	0.051	0.093
24	0.056	0.101
25	0.061	0.111
26	0.067	0.121
27	0.073	0.132
28	0.079	0.143
29	0.086	0.156
30	0.094	0.169
31	0.102	0.184
32	0.110	0.199
33	0.120	0.215
34	0.130	0.231
35	0.140	0.249
36	0.151	0.267
37	0.162	0.285
38	0.174	0.305
39	0.186	0.325
40	0.199	0.346
41	0.213	0.367
42	0.227	0.390
43	0.241	0.413
44	0.257	0.438
45	0.273	0.463
46	0.290	0.490
47	0.308	0.517
48	0.326	0.545
49	0.345	0.575
50	0.365	0.606
51	0.385	0.639
52	0.406	0.672
53	0.428	0.708
54	0.451	0.745
55	0.474	0.783
56	0.499	0.823
57	0.525	0.864
58	0.552	0.908
59	0.581	0.953
60	0.611	1.000
61	0.642	
62	0.675	
63	0.710	
64	0.746	
65	0.784	
66	0.823	
67	0.864	
68	0.908	
69	0.953	
70	1.000	

Salary Scale of merit and longevity plus 4.25% inflation

Exhibit III

YEARS OF LIFE EXPECTANCY AFTER SERVICE RETIREMENT

<u>Age</u>	<u>General Members</u>			<u>Age</u>	<u>General Members</u>		
	<u>Male</u>	<u>Female</u>	<u>Safety</u>		<u>Male</u>	<u>Female</u>	<u>Safety</u>
50	29.09	35.19	29.09	80	7.51	10.49	7.51
51	28.18	34.24	28.18	81	7.07	9.88	7.07
52	27.28	33.29	27.28	82	6.65	9.30	6.65
53	26.38	32.34	26.38	83	6.24	8.74	6.24
54	25.49	31.40	25.49	84	5.86	8.20	5.86
55	24.61	30.47	24.61	85	5.48	7.68	5.48
56	23.74	29.53	23.74	86	5.12	7.18	5.12
57	22.88	28.61	22.88	87	4.78	6.71	4.78
58	22.04	27.68	22.04	88	4.45	6.25	4.45
59	21.20	26.77	21.20	89	4.15	5.83	4.15
60	20.38	25.86	20.38	90	3.87	5.42	3.87
61	19.57	24.97	19.57	91	3.61	5.05	3.61
62	18.78	24.09	18.78	92	3.37	4.70	3.37
63	18.01	23.22	18.01	93	3.15	4.37	3.15
64	17.26	22.36	17.26	94	2.95	4.07	2.95
65	16.53	21.52	16.53	95	2.77	3.79	2.77
66	15.81	20.69	15.81	96	2.61	3.53	2.61
67	15.11	19.88	15.11	97	2.46	3.28	2.46
68	14.43	19.09	14.43	98	2.33	3.06	2.33
69	13.77	18.30	13.77	99	2.21	2.85	2.21
70	13.11	17.53	13.11	100	2.09	2.65	2.09
71	12.48	16.77	12.48	101	1.98	2.48	1.98
72	11.85	16.01	11.85	102	1.87	2.31	1.87
73	11.25	15.26	11.25	103	1.77	2.16	1.77
74	10.66	14.53	10.66	104	1.68	2.02	1.68
75	10.08	13.81	10.08	105	1.62	1.89	1.62
76	9.52	13.11	9.52	106	1.57	1.78	1.57
77	8.98	12.43	8.98	107	1.53	1.69	1.53
78	8.46	11.76	8.46	108	1.51	1.62	1.51
79	7.97	11.11	7.97	109	1.49	1.56	1.49
				110	1.47	1.51	1.47

General Male Members - 1994 GAM Male Set Forward 1 Year
 Female Members - 1994 GAM Female Table Set back 1 Year

Safety All Members - 1994 GAM Male Set Forward 1 Year

Exhibit III

YEARS OF LIFE EXPECTANCY AFTER DISABILITY RETIREMENT

General Members

<u>Age</u>	<u>Male & Female</u>	<u>Age</u>	<u>Male & Female</u>	<u>Age</u>	<u>Male & Female</u>
20	41.73	50	22.56	80	8.28
21	40.73	51	22.06	81	7.83
22	39.73	52	21.57	82	7.41
23	38.73	53	21.08	83	7.00
24	37.98	54	20.59	84	6.63
25	37.26	55	20.11	85	6.27
26	36.56	56	19.63	86	5.94
27	35.87	57	19.16	87	5.63
28	35.19	58	18.68	88	5.34
29	34.53	59	18.21	89	5.06
30	33.87	60	17.75	90	4.80
31	33.23	61	17.29	91	4.55
32	32.60	62	16.83	92	4.31
33	31.98	63	16.37	93	4.09
34	31.37	64	15.91	94	3.87
35	30.76	65	15.45	95	3.66
36	30.17	66	14.99	96	3.46
37	29.58	67	14.53	97	3.26
38	29.00	68	14.07	98	3.07
39	28.43	69	13.60	99	2.89
40	27.87	70	13.13	100	2.71
41	27.31	71	12.66	101	2.54
42	26.76	72	12.18	102	2.37
43	26.21	73	11.70	103	2.20
44	25.67	74	11.21	104	2.04
45	25.14	75	10.72	105	1.88
46	24.61	76	10.22	106	1.72
47	24.09	77	9.73	107	1.55
48	23.57	78	9.24	108	1.38
49	23.06	79	8.76	109	1.21
				110	1.21

General 1981 General Disability Table Set Back 3 Years

Exhibit III

YEARS OF LIFE EXPECTANCY AFTER DISABILITY RETIREMENT

Safety Members

<u>Age</u>	<u>Male & Female</u>	<u>Age</u>	<u>Male & Female</u>	<u>Age</u>	<u>Male & Female</u>
20	50.29	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	0.88

Safety 1981 Safety Disability Table Set Back 1 Year

APPENDIX C

SUMMARY OF MEMBERSHIP AND BENEFIT STATISTICS

Association Membership and Benefit Statistics

Summary of Active Membership

Active General Members		June 30, 1999	June 30, 1998	Percent Change
General Plan 1				
A.	Number	470	502	-6.4%
B.	Average Age	53.85	53.28	1.1%
C.	Average Years of Service	25.09	24.13	4.0%
D.	Annual Salary			
	i. Total	\$ 27,691,000	\$ 26,812,000	3.3%
	ii. Average Monthly Salary	\$ 4,910	\$ 4,451	10.3%
General Plan 2				
A.	Number	2,485	2,700	-8.0%
B.	Average Age	44.55	43.42	2.6%
C.	Average Years of Service	9.23	8.14	13.4%
D.	Annual Salary			
	i. Total	\$ 128,241,000	\$ 126,169,000	1.6%
	ii. Average Monthly Salary	\$ 4,301	\$ 3,894	10.5%
General Plan 3				
A.	Number	291	308	-5.5%
B.	Average Age	40.22	39.61	1.5%
C.	Average Years of Service	7.43	7.25	2.5%
D.	Annual Salary			
	i. Total	\$ 13,339,000	\$ 13,018,000	2.5%
	ii. Average Monthly Salary	\$ 3,820	\$ 3,522	8.5%
General Plan 4				
A.	Number	662	293	125.9%
B.	Average Age	36.70	35.76	2.6%
C.	Average Years of Service	0.40	0.33	21.2%
D.	Annual Salary			
	i.	\$ 27,665,000	\$ 11,080,000	149.7%
	ii.	\$ 3,483	\$ 3,151	10.5%
General Total				
A.	Number	3,908	3,803	2.8%
B.	Average Age	44.02	43.82	0.4%
C.	Average Years of Service	9.51	9.58	-0.7%
D.	Annual Salary			
	i. Total	\$ 196,936,000	\$ 177,079,000	11.2%
	ii. Average Monthly Salary	\$ 4,199	\$ 3,880	8.2%

Association Membership and Benefit Statistics

Active Safety Members				
		<u>June 30, 1999</u>	<u>June 30, 1998</u>	<u>Percent Change</u>
Safety Plan 1				
A.	Number	113	125	-9.6%
B.	Average Age	51.32	50.65	1.3%
C.	Average Years of Service	25.04	24.30	3.0%
D.	Annual Salary			
	i. Total	\$ 8,679,000	\$ 8,343,000	4.0%
	ii. Average Monthly Salary	\$ 6,400	\$ 5,562	15.1%
Safety Plan 2				
A.	Number	236	241	-2.1%
B.	Average Age	39.77	38.82	2.4%
C.	Average Years of Service	9.88	8.85	11.6%
D.	Annual Salary			
	i. Total	\$ 16,661,000	\$ 14,189,000	17.4%
	ii. Average Monthly Salary	\$ 5,883	\$ 4,906	19.9%
Safety Plan 4				
A.	Number	76	40	90.0%
B.	Average Age	30.46	29.08	4.7%
C.	Average Years of Service	0.50	0.44	13.6%
D.	Annual Salary			
	i.	\$ 4,521,000	\$ 1,872,000	141.5%
	ii.	\$ 4,957	\$ 3,900	27.1%
Safety Total				
A.	Number	425	406	4.7%
B.	Average Age	41.18	41.50	-0.8%
C.	Average Years of Service	12.23	12.78	-4.3%
D.	Annual Salary			
	i. Total	\$ 29,861,000	\$ 24,404,000	22.4%
	ii. Average Monthly Salary	\$ 5,855	\$ 5,009	16.9%

Association Membership and Benefit Statistics

Active Probation Members				
		<u>June 30, 1999</u>	<u>June 30, 1998</u>	<u>Percent Change</u>
Probation Plan 1				
A.	Number	50	51	-2.0%
B.	Average Age	53.28	52.37	1.7%
C.	Average Years of Service	26.40	25.53	3.4%
D.	Annual Salary			
	i. Total	\$ 3,060,000	\$ 2,836,000	7.9%
	ii. Average Monthly Salary	\$ 5,100	\$ 4,634	10.1%
Probation Plan 2				
A.	Number	127	128	-0.8%
B.	Average Age	38.80	38.53	0.7%
C.	Average Years of Service	8.69	8.15	6.6%
D.	Annual Salary			
	i. Total	\$ 6,462,000	\$ 6,054,000	6.7%
	ii. Average Monthly Salary	\$ 4,240	\$ 3,941	7.6%
Probation Plan 4				
A.	Number	68	32	112.5%
B.	Average Age	30.00	31.09	-3.5%
C.	Average Years of Service	0.37	0.47	-21.3%
D.	Annual Salary			
	i. Total	\$ 2,545,000	\$ 1,156,000	120.2%
	ii. Average Monthly Salary	\$ 3,119	\$ 3,010	3.6%
Probation Total				
A.	Number	245	211	16.1%
B.	Average Age	39.31	40.75	-3.5%
C.	Average Years of Service	10.00	11.19	-10.6%
D.	Annual Salary			
	i. Total	\$ 12,067,000	\$ 10,046,000	20.1%
	ii. Average Monthly Salary	\$ 4,104	\$ 3,968	3.4%
Total				
	Number	4,578	4,420	3.6%
	Annual Payroll	\$ 238,864,000	\$ 211,529,000	12.9%
	Average Monthly Salary	\$ 4,348	\$ 3,988	9.0%

RETIRED AND INACTIVE VESTED MEMBERS

	<u>June 30, 1999 *</u>	<u>June 30, 1998</u>	<u>Percent Change</u>
Retired Members			
A. Service Retirement			
i. Number	2,295	2,300	-0.2%
ii. Annual Allowance			
Basic Only	\$ 27,966,000	\$ 26,159,000	6.9%
COLA	\$ 12,343,000	\$ 11,910,000	3.6%
Total	\$ 40,309,000	\$ 38,069,000	5.9%
Average Monthly Amount	\$ 1,464	\$ 1,379	6.2%
B. Disability Retirement			
i. Number	263	250	5.2%
ii. Annual Allowance			
Basic Only	\$ 3,517,000	\$ 3,115,000	12.9%
COLA	\$ 1,402,000	\$ 1,303,000	7.6%
Total	\$ 4,919,000	\$ 4,418,000	11.3%
Average Monthly Amount	\$ 1,559	\$ 1,473	5.8%
C. Beneficiaries			
i. Number	401	381	5.2%
ii. Annual Allowance			
Basic Only	\$ 2,819,000	\$ 2,154,000	30.9%
COLA	\$ 2,444,000	\$ 2,204,000	10.9%
Total	\$ 5,263,000	\$ 4,358,000	20.8%
Average Monthly Amount	\$ 1,094	\$ 953	14.8%
Total			
i. Number	2,959	2,931	1.0%
ii. Annual Allowance			
Basic Only	\$ 34,302,000	\$ 31,428,000	9.1%
COLA	\$ 16,189,000	\$ 15,417,000	5.0%
Total	\$ 50,491,000	\$ 46,845,000	7.8%
Average Monthly Amount	\$ 1,422	\$ 1,332	6.8%
Inactive Vested Members			
A. Number	613	552	11.1%

*Number of retirees reported as of June 30, 1999 counted a retiree once even though he/she was receiving benefits from more than one plan

ANNUAL SALARY AND MEMBERSHIP DISTRIBUTION
OF ACTIVE GENERAL PLAN 1 MEMBERS

Age Group	YEARS OF SERVICE									TOTAL
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
0-19										0
20-24										0
25-29										0
30-34										0
35-39				2						2
				43,049						43,049
40-44				7	11	1				19
				53,796	47,038	48,792				49,620
45-49				12	45	30	1			88
				55,623	61,186	52,039	54,238			57,230
50-54				15	55	53	20			143
				58,823	64,781	63,204	51,392			61,699
55-59				9	38	47	37	7		138
				50,961	65,774	58,900	54,879	48,266		58,657
60-64				11	18	16	17	4	1	67
				44,990	62,215	69,259	57,106	71,959	89,074	60,756
65-69				4	4	1	1	1		11
				43,790	55,055	76,200	46,835	37,498		50,538
70-74					1			1		2
					34,720			47,227		40,973
75+										0
Total	-	0	0	60	172	148	76	13	1	470
	0	0	0	52,353	62,256	60,219	54,345	54,648	89,074	58,918
				Total Salary	\$27,691,337					
				Average Age	53.85					
				Average Service	25.09					

ANNUAL SALARY AND MEMBERSHIP DISTRIBUTION
OF ACTIVE GENERAL PLAN 2 MEMBERS

Age Group	YEARS OF SERVICE									TOTAL
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
0-19										0
20-24	5	1								6
	37,190	36,341								37,048
25-29	81	36	1							118
	45,200	41,769	44,760							44,149
30-34	108	118	35	2						263
	48,412	48,992	46,758	43,739						48,416
35-39	113	149	128	33						423
	54,050	47,535	50,498	45,828						50,039
40-44	75	132	130	83	4					424
	47,497	52,031	52,158	56,678	51,984					52,177
45-49	85	166	131	80	6	7				475
	52,758	51,791	54,850	57,163	66,500	55,366				53,951
50-54	52	110	119	90	10	3	1			385
	55,886	55,175	54,247	54,512	63,108	70,373	69,295			55,190
55-59	28	64	106	47	5	5				255
	57,055	49,131	50,261	53,509	62,326	60,454				51,759
60-64	6	24	38	26	1					95
	49,408	44,126	45,724	56,154	41,135					48,359
65-69	1	13	12	6						32
	63,939	60,081	52,849	34,423						52,678
70-74		3	4	1						8
		59,745	47,716	29,164						49,908
75+			1							1
			33,755							33,755
Total	554	816	705	368	26	15	1	0	0	2,485
	50,711	50,370	51,759	54,331	61,184	60,063	69,295	0	0	51,606

Total Salary \$128,241,365
Average Age 44.55
Average Service 9.23

ANNUAL SALARY AND MEMBERSHIP DISTRIBUTION
OF ACTIVE GENERAL PLAN 3 MEMBERS

Age Group	YEARS OF SERVICE									TOTAL
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
0-19										0
20-24	9 32,213									9 32,213
25-29	30 43,548	7 40,297	1 44,598							38 42,977
30-34	32 46,774	16 42,156	1 64,904							49 45,636
35-39	20 41,903	14 51,624	10 59,543	1 49,917						45 49,025
40-44	9 46,070	18 49,669	13 45,280	9 41,987						49 46,433
45-49	9 39,088	12 52,276	15 53,081	8 42,469	4 58,979	1 41,378				49 48,824
50-54	3 50,036	12 40,647	6 50,582	1 35,693	1 37,633	1 67,798				24 45,103
55-59	4 32,417	4 36,626	3 62,413	6 49,566		2 51,579	1 33,755			20 44,886
60-64		3 34,243	1 30,380	2 49,595						6 38,717
65-69			2 46,608							2 46,608
70-74										0
75+										0
Total	116 42,908	86 45,787	52 52,002	27 44,438	5 54,710	4 53,084	1 33,755	0 0	0 0	291 45,837
					Total Salary	\$13,338,624				
					Average Age	40.22				
					Average Service	7.43				

ANNUAL SALARY AND MEMBERSHIP DISTRIBUTION
OF ACTIVE GENERAL PLAN 4 MEMBERS

Age Group	YEARS OF SERVICE									TOTAL
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
0-19	1									1
	30,162									30,162
20-24	55									55
	32,756									32,756
25-29	135									135
	39,640									39,640
30-34	128									128
	41,812									41,812
35-39	98									98
	42,063									42,063
40-44	80									80
	41,631									41,631
45-49	86	1								87
	44,480	37,760								44,402
50-54	51									51
	52,667									52,667
55-59	19									19
	38,333									38,333
60-64	7									7
	52,199									52,199
65-69	1									1
	34,748									34,748
70-74										0
75+										0
Total	661	1	0	0	0	0	0	0	0	662
	41,797	37,760	0	0	0	0	0	0	0	41,790

Total Salary \$27,665,241
Average Age 36.70
Average Service .40

ANNUAL SALARY AND MEMBERSHIP DISTRIBUTION
OF ACTIVE SAFETY PLAN 1 MEMBERS

Age Group	YEARS OF SERVICE									TOTAL
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
0-19										0
20-24										0
25-29										0
30-34										0
35-39				1						1
				82,536						82,536
40-44				5	3					8
				81,018	79,786					80,556
45-49				3	13	5	1			22
				83,780	72,501	85,313	66,790			76,691
50-54				3	16	30	8			57
				68,613	71,804	74,017	83,947			74,505
55-59				1	5	16	2			24
				66,481	79,794	82,044	79,913			80,749
60-64								1		1
								80,477		80,477
65-69										0
70-74										0
75+										0
Total	0	0	0	13	37	51	11	1	0	113
	0	0	0	77,791	73,776	77,643	81,654	80,477	0	76,809
				Total Salary	\$8,679,444					
				Average Age	51.32					
				Average Service	25.04					

ANNUAL SALARY AND MEMBERSHIP DISTRIBUTION
OF ACTIVE SAFETY PLAN 2 MEMBERS

Age Group	YEARS OF SERVICE									TOTAL
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
0-19										0
20-24	1 26,039									1 26,039
25-29	9 59,736	5 66,853								14 62,278
30-34	13 66,303	21 66,996	12 73,744							46 68,560
35-39	6 79,186	12 67,434	30 70,887	7 75,664						55 71,647
40-44	9 67,760	13 72,029	20 73,371	16 71,849						58 71,780
45-49	6 74,166	7 68,006	13 72,986	15 74,198						41 72,752
50-54	1 82,975		6 70,489	12 73,933						19 73,322
55-59										0
60-64				1 66,790						1 66,790
65-69			1 63,058							1 63,058
70-74										0
75+										0
Total	45 67,523	58 68,324	82 72,119	51 73,455	0 0	0 0	0 0	0 0	0 0	236 70,599
					Total Salary	\$16,661,279				
					Average Age	39.77				
					Average Service	9.88				

ANNUAL SALARY AND MEMBERSHIP DISTRIBUTION
OF ACTIVE SAFETY PLAN 4 MEMBERS

Age Group	YEARS OF SERVICE									TOTAL			
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+				
0-19										0			
20-24	10 56,150									10 56,150			
25-29	23 55,898									23 55,898			
30-34	28 60,823									28 60,823			
35-39	11 61,527									11 61,527			
40-44	1 57,413									1 57,413			
45-49	3 78,976									3 78,976			
50-54										0			
55-59										0			
60-64										0			
65-69										0			
70-74										0			
75+										0			
Total	76 59,491	0	0	0	0	0	0	0	0	76 59,491			
		Total Salary		\$4,521,341		Average Age		30.46		Average Service		.50	

ANNUAL SALARY AND MEMBERSHIP DISTRIBUTION
OF ACTIVE PROBATION PLAN 1 MEMBERS

Age Group	YEARS OF SERVICE									TOTAL
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
0-19										0
20-24										0
25-29										0
30-34										0
35-39										0
40-44				3						3
				65,233						65,233
45-49				2	3	1				6
				28,584	37,784	60,266				38,465
50-54				4	3	13	1			21
				60,989	59,612	66,524	60,266			64,184
55-59				1		4	9			14
				60,266		62,530	65,629			64,361
60-64						1	4			5
						60,266	65,972			64,831
65-69							1			1
							60,266			60,266
70-74										0
75+										0
Total	0	0	0	10	6	19	15	0	0	50
	0	0	0	55,709	48,698	65,024	65,005	0	0	61,196
				Total Salary	\$3,059,825					
				Average Age	53.28					
				Average Service	26.40					

ANNUAL SALARY AND MEMBERSHIP DISTRIBUTION
OF ACTIVE PROBATION PLAN 2 MEMBERS

Age Group	YEARS OF SERVICE									TOTAL
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
0-19										0
20-24										0
25-29	16 40,576	2 51,790								18 41,822
30-34	14 46,697	15 48,156	7 50,773							36 48,097
35-39	5 40,103	5 49,965	11 56,609							21 51,097
40-44	1 41,755	5 57,151	8 57,581	5 56,957						19 56,471
45-49		3 49,446	5 50,924	7 63,458						15 56,477
50-54	1 45,531	4 51,618	1 56,994	2 68,283		1 66,431				9 56,888
55-59			1 119,269	3 57,407		1 61,506				5 70,599
60-64		1 40,590		2 63,968						3 56,176
65-69				1 33,560						1 33,560
70-74										0
75+										0
Total	37 42,994	35 50,197	33 56,656	20 59,964	0 0	2 63,969	0 0	0 0	0 0	127 50,880
						Total Salary	\$6,462,066			
						Average Age	38.80			
						Average Service	8.69			

ANNUAL SALARY AND MEMBERSHIP DISTRIBUTION
OF ACTIVE PROBATION PLAN 4 MEMBERS

Age Group	YEARS OF SERVICE									TOTAL
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
0-19										0
20-24	9									9
	35,637									35,637
25-29	31									31
	36,783									36,783
30-34	19									19
	35,267									35,267
35-39	3									3
	43,112									43,112
40-44	1									1
	55,148									55,148
45-49	2									2
	48,913									48,913
50-54										0
55-59	2									2
	39,041									39,041
60-64	1									1
	53,863									53,863
65-69										0
70-74										0
75+										0
Total	68	0	0	0	0	0	0	0	0	68
	37,431	0	0	0	0	0	0	0	0	37,431
		Total Salary		\$2,545,357						
		Average Age		30.00						
		Average Service		.37						

ANNUAL BENEFIT AND MEMBERSHIP DISTRIBUTION
OF RETIRED GENERAL MEMBERS

Age Group	YEARS RETIRED									TOTAL
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
0-19										0
20-24										0
25-29										0
30-34										0
35-39										0
40-44										0
45-49										0
50-54	62 8,868									62 8,868
55-59	83 12,961	58 10,086								141 11,778
60-64	120 17,036	85 13,805	35 11,470							240 15,080
65-69	129 19,846	124 18,436	61 14,669	46 10,040	1 6,773					361 17,201
70-74	30 14,565	143 20,524	164 18,213	81 12,575	30 9,196					448 17,083
75+	6 16,941	38 13,173	190 17,349	289 15,303	231 15,259	79 10,696	14 9,157	1 4,697		848 15,122
Total	430 15,741	448 16,696	450 16,843	416 14,190	262 14,532	79 10,696	14 9,157	1 4,697	0 0	2,100 15,484
Total Annual Benefit					\$33,343,524					
Average Age					74.33					
Average Years Retired					11.89					

ANNUAL BENEFIT AND MEMBERSHIP DISTRIBUTION
OF SERVICE CONNECTED DISABILITY RETIRED GENERAL MEMBERS

Age Group	YEARS RETIRED									TOTAL
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
0-19										0
20-24										0
25-29										0
30-34										0
35-39	4									4
	20,060									20,060
40-44	3	1								4
	28,690	17,001								25,768
45-49	1	6								7
	30,203	25,073								25,806
50-54	6	3								9
	18,272	27,032								21,192
55-59	4	8	1							13
	16,210	19,070	28,238							18,895
60-64	5	6	1			1				13
	20,060	21,166	14,849			19,485				20,125
65-69	2	6		1	2					11
	15,454	19,853		14,412	15,901					17,840
70-74			1	1	1					3
			45,677	15,719	21,645					27,680
75+			2	1	6	3	1			13
			17,157	34,058	21,148	21,156	11,299			20,771
Total	25	30	5	3	9	4	1	0	0	77
	20,088	21,574	24,616	21,396	20,037	20,738	11,299	0	0	20,925
						Total Annual Benefit	\$1,611,262			
						Average Age	61.04			
						Average Years Retired	8.90			

ANNUAL BENEFIT AND MEMBERSHIP DISTRIBUTION
OF GENERAL MEMBER BENEFICIARIES

Age Group	YEARS RETIRED									TOTAL
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
0-19	3 3,949									3 3,949
20-24										0
25-29										0
30-34										0
35-39	2 10,277									2 10,277
40-44	1 6,249	1 6,277	1 11,430							3 7,985
45-49	5 18,006		1 16,407							6 17,740
50-54	4 11,110	5 9,267	5 8,869	2 6,211		2 2,382				18 8,461
55-59	7 13,111	3 10,574	2 12,314	1 11,741						13 12,298
60-64	4 9,224	7 8,601	4 13,194	3 6,653	2 10,441	1 8,901				21 9,506
65-69	4 18,119	10 15,254	13 18,367	8 10,796	6 8,123					41 14,607
70-74	2 14,517	11 10,781	8 17,402	13 13,642	10 17,691	5 12,165				49 14,325
75+	1 8,285	4 32,422	20 11,090	48 9,481	71 12,328	43 11,981	14 8,992	3 9,224		204 11,563
Total	33 12,472	41 13,301	54 13,877	75 10,172	89 12,605	51 11,562	14 8,992	3 9,224	0 0	360 12,040
				Total Annual Benefit	\$4,361,484					
				Average Age	74.90					
				Average Years Retired	17.25					

ANNUAL BENEFIT AND MEMBERSHIP DISTRIBUTION
OF RETIRED SAFETY AND PROBATION MEMBERS NON-SERVICE DISABILITY

Age Group	YEARS RETIRED									TOTAL
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
0-19										0
20-24										0
25-29										0
30-34										0
35-39										0
40-44										0
45-49										0
50-54			1 3,889							1 3,889
55-59		1 22,552								1 22,552
60-64		1 1,910								1 1,910
65-69										0
70-74										0
75+					1 29,829	1 26,374				2 28,101
Total	0 0	2 12,231	1 3,889	0 0	1 29,829	1 26,374	0 0	0 0	0 0	5 16,911
Total Annual Benefit					\$84,554					
Average Age					65.20					
Average Years Retired					14.20					

**SUMMARY OF MONTHLY ALLOWANCES BEING PAID
AS OF JUNE 30, 1999**

General Members

Service	Monthly Allowance			
	Number	Basic	Cost of Living	Total
Unmodified	1,908	\$ 1,743,854	\$ 848,265	\$ 2,592,119
Option 1	97	75,199	37,018	112,217
Option 2,3, & 4	95	58,053	16,238	74,291
Total	2,100	\$ 1,877,106	\$ 901,521	\$ 2,778,627
Ordinary Disability				
Unmodified	113	\$ 72,417	\$ 41,754	\$ 114,171
Option 1	8	3,000	2,090	5,090
Option 2,3, & 4	4	2,436	707	3,143
Total	125	\$ 77,853	\$ 44,551	\$ 122,404
Duty Disability				
Unmodified	72	\$ 94,363	\$ 31,585	\$ 125,948
Option 1	4	4,378	2,490	6,868
Option 2,3, & 4	1	1,111	345	1,456
Total	77	\$ 99,852	\$ 34,420	\$ 134,272
Beneficiaries				
Total	360	\$ 191,011	\$ 172,446	\$ 363,457

Safety and Probation Members

Service	Monthly Allowance			
	Number	Basic	Cost of Living	Total
Unmodified	184	\$ 434,999	\$ 123,089	\$ 558,088
Option 1	4	5,901	1,796	7,697
Option 2,3, & 4	7	12,448	2,206	14,654
Total	195	\$ 453,348	\$ 127,091	\$ 580,439
Ordinary Disability				
Unmodified	5	\$ 3,404	\$ 3,642	\$ 7,046
Option 1	-	-	-	-
Option 2,3, & 4	-	-	-	-
Total	5	\$ 3,404	\$ 3,642	\$ 7,046
Duty Disability				
Unmodified	54	\$ 108,128	\$ 33,644	\$ 141,772
Option 1	-	-	-	-
Option 2,3, & 4	2	3,911	542	4,453
Total	56	\$ 112,039	\$ 34,186	\$ 146,225
Beneficiaries				
Total	41	\$ 43,901	\$ 31,198	\$ 75,099

APPENDIX D

MEMBERS' CONTRIBUTION RATES

MEMBERS' CONTRIBUTION RATES

MEMBERS' CONTRIBUTION RATES

ENTRY AGE	GENERAL		SAFETY		PROBATION
	Plan 1 & 2	Plan 4	Plan 1 & 2	Plan 4	Plan 1, 2 & 4
16	5.39%	5.14%			
17	5.39%	5.14%			
18	5.39%	5.14%	6.75%	6.42%	7.56%
19	5.39%	5.14%	6.75%	6.42%	7.56%
20	5.39%	5.14%	6.76%	6.43%	7.57%
21	5.40%	5.15%	6.77%	6.44%	7.58%
22	5.41%	5.16%	6.78%	6.46%	7.60%
23	5.42%	5.17%	6.80%	6.47%	7.61%
24	5.44%	5.19%	6.82%	6.49%	7.64%
25	5.46%	5.21%	6.84%	6.51%	7.66%
26	5.48%	5.23%	6.87%	6.54%	7.69%
27	5.51%	5.25%	6.90%	6.57%	7.73%
28	5.54%	5.28%	6.94%	6.60%	7.77%
29	5.57%	5.31%	6.98%	6.64%	7.82%
30	5.60%	5.34%	7.03%	6.69%	7.87%
31	5.64%	5.38%	7.08%	6.74%	7.93%
32	5.68%	5.41%	7.14%	6.79%	7.99%
33	5.72%	5.46%	7.20%	6.85%	8.06%
34	5.77%	5.50%	7.27%	6.92%	8.14%
35	5.82%	5.55%	7.34%	6.99%	8.22%
36	5.88%	5.60%	7.42%	7.06%	8.31%
37	5.94%	5.66%	7.50%	7.14%	8.40%
38	6.00%	5.72%	7.59%	7.22%	8.50%
39	6.07%	5.79%	7.68%	7.31%	8.60%
40	6.14%	5.85%	7.78%	7.40%	8.71%
41	6.21%	5.92%	7.88%	7.50%	8.82%
42	6.29%	6.00%	7.99%	7.60%	8.94%
43	6.37%	6.07%	8.09%	7.70%	9.06%
44	6.45%	6.15%	8.21%	7.81%	9.19%
45	6.54%	6.24%	8.32%	7.92%	9.32%
46	6.63%	6.32%	8.44%	8.03%	9.45%
47	6.72%	6.41%	8.56%	8.15%	9.59%
48	6.82%	6.50%	8.69%	8.48%	9.97%
49	6.92%	6.60%	8.82%	8.82%	10.37%
50	7.03%	6.70%			
51	7.14%	6.81%			
52	7.25%	6.91%			
53	7.36%	7.02%			
54	7.48%	7.13%			
55	7.60%	7.25%			
56	7.72%	7.36%			
57	7.84%	7.48%			
58	7.97%	7.78%			
59 & Over	8.09%	8.09%			

The following sections are also used in deriving the contribution rates.

Section	General		Safety		Probation Officers
	Plan 1 & 2	Plan 4	Plan 1 & 2	Plan 4	Plan 1, 2 & 4
Section	31676.1	31676.1	31664	31664	31664
Years of Final Average Salary	1	3	1	3	3
Percent of Full Rates	100%	100%	85%*	85%*	100%

* For Safety management and sergeants, their rates should be calculated by taking the above rates and dividing by 85%.

APPENDIX E

GLOSSARY OF ACTUARIAL TERMINOLOGY

Glossary of Actuarial Terminology

AAI: 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 Association's current level of benefits to have been funded as a level percentage of pay each year from date of entry into the Association 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.

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 Association'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 Association.

Assets: Underlying funds available to provide for the Association'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 Association) 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 Associations.

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 Association. GASB No. 25 specifies the Actuarial Accrued Liability as a standardized target level of assets.

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