

February 17, 2003

Actuarial Valuation Report

San Mateo County Employees' Retirement Association

As of June 30, 2002

As Supplemented April 22, 2003

Updated information in blue

MERCER

Human Resource Consulting

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Section 1: Actuarial Certification

The supplemental actuarial valuation required for the San Mateo County Employees' Retirement Association has been prepared as of June 30, 2002 by Mercer Human Resource Consulting. 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 unaudited financial information provided to us by the Association's staff. We have not audited this data, 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 20 years as of June 30, 2002. 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 to the unfunded actuarial accrued liability are calculated to increase at 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 decreased from 98.6% to 91.9% during the year. This change is due to experience losses during the year and changes in actuarial assumptions and methods adopted by the Board. The funded ratio under the enhanced benefit formulas is 85.3%.

The following changes were made to this year's actuarial valuation:

1. The actuarial assumptions were reviewed and the new actuarial assumptions were developed and documented in our triennial experience study report, dated November 19, 2002.
2. The Board adopted our recommended 80–120% market value corridor in determining the actuarial value of assets.
3. The amortization schedule was changed from 9½ years to 20 years.
4. 1% Statutory Contingency Reserve is now included as a valuation asset to determine the employer's contribution rate.
5. We developed employer and member contribution rates under the old formula (Section 31676.1) and the new formula (Section 31676.16) for General employees.
6. We developed employer and member contribution rates under the old formula (Section 31664) and the new formula (Section 31664.2 and Section 31664.1) for Safety and Probation members.

We reflected that General members agreed to contribute an additional 1% contribution, Safety members to an additional 3% contribution (2% effective July 1, 2003, and 3% effective January 1, 2004) and Probation members to an additional 2.5% contribution (1.5% effective October 12, 2003 and 2.5% effective January 1, 2004) to offset part of the costs to provide the additional benefits.

The liabilities and costs in this valuation incorporate 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*

Actuarial Certification *(continued)*

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).

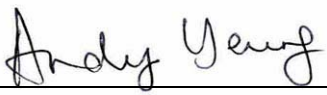

In our opinion, the combined operation of the assumptions and methods applied in this valuation, fairly represent past and anticipated future experience of the Association and meet the parameters required by GASB Statement 25.

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

1. differences between actual experience and anticipated experience;
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.

Mercer Human Resource Consulting

 <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <p>Andy Yeung, ASA, EA, MAAA</p>	<p>April 17, 2003</p> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <p>Date</p>
 <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <p>Marcia L. Chapman, FSA, EA, MAAA</p>	<p>April 17, 2003</p> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <p>Date</p>
<p>Mercer Human Resource Consulting 111 SW Fifth Avenue Suite 2800 Portland, OR 97204-3693 503 273 5900</p>	

Section 2: Board Member Summary of Valuation Results

Employer Contribution Rates

SUMMARY OF RECOMMENDATIONS (Old Formula)*

Employer Contributions Rates	June 30, 2002	June 30, 2001	Increase/Decrease
Normal Cost Rate:	11.29%	10.85%	0.44%
Rate of Contribution to Unfunded Actuarial Accrued Liability:	<u>2.92%</u>	<u>0.81%</u>	<u>2.11%</u>
Total Employer Rate:	14.21%	11.66%	2.55%
Estimated Annual Amount:	\$ 42,928,000	\$ 35,211,000	\$ 7,717,000

Member Contribution Rates	June 30, 2002	June 30, 2001	Increase/Decrease
General Members (Plan 1 & Plan 2)			
25	5.54%	5.46%	0.08%
35	5.90%	5.82%	0.08%
45	6.63%	6.54%	0.09%
General Members (Plan 4)			
25	5.28%	5.21%	0.07%
35	5.63%	5.55%	0.08%
45	6.32%	6.24%	0.08%
Safety Members (Plan 1 & Plan 2)			
21	6.77%	6.77%	0.00%
25	6.84%	6.84%	0.00%
30	7.03%	7.03%	0.00%
Safety Members (Plan 4)			
21	6.44%	6.44%	0.00%
25	6.51%	6.51%	0.00%
30	6.69%	6.69%	0.00%
Probation Officers (Plan 1, Plan 2 & Plan 4)			
21	7.58%	7.58%	0.00%
25	7.66%	7.66%	0.00%
30	7.87%	7.87%	0.00%
Estimated Annual Amount	\$ 17,882,000	\$ 17,684,000	\$ 198,000

Actuarial Assumptions**	June 30, 2002	June 30, 2001	Increase/Decrease
Annual Inflation Rate:	4.25%	4.25%	0.00%
Annual Investment Return:	8.25%	8.25%	0.00%
Average Annual Salary Increases:	6.25%	6.25%	0.00%

* Assuming benefit under Section 31676.1 for General members will be effective for the entire fiscal year following the June 30, 2002, valuation.

** See actuarial assumptions section for changes made due to experience analysis.

Summary of Valuation Results *(continued)*

Employer Contribution Rates

EMPLOYER CONTRIBUTION RATES SUMMARY OF RECOMMENDATIONS (New Formula) *

Employer Contributions Rates	June 30, 2002	June 30, 2001	Increase/Decrease
Normal Cost Rate:	12.96%	10.85%	2.11%
Rate of Contribution to Unfunded Actuarial Accrued Liability:	<u>5.73%</u>	<u>0.81%</u>	<u>4.92%</u>
Total Employer Rate:	18.69%	11.66%	7.03%
Estimated Annual Amount:	\$ 56,448,000	\$ 35,211,000	\$ 21,237,000



Member Contribution Rates	June 30, 2002	Scheduled Cost-Sharing**	June 30, 2001	Increase/Decrease
General Members (Plan 1 & Plan 2)				
25	5.54%	1.00%	5.46%	1.08%
35	5.90%	1.00%	5.82%	1.08%
45	6.63%	1.00%	6.54%	1.09%
General Members (Plan 4)				
25	5.28%	1.00%	5.21%	1.07%
35	5.63%	1.00%	5.55%	1.08%
45	6.32%	1.00%	6.24%	1.08%
Safety Members (Plan 1 & Plan 2)				
21	6.77%	2.50%	6.77%	2.50%
25	6.84%	2.50%	6.84%	2.50%
30	7.03%	2.50%	7.03%	2.50%
Safety Members (Plan 4)				
21	6.44%	2.50%	6.44%	2.50%
25	6.51%	2.50%	6.51%	2.50%
30	6.69%	2.50%	6.69%	2.50%
Probation Officers (Plan 1 & Plan 2)				
21	7.97%	1.56%	7.58%	1.95%
25	8.05%	1.56%	7.66%	1.95%
30	8.27%	1.56%	7.87%	1.96%
Probation Officers (Plan 4)				
21	7.58%	1.56%	7.58%	1.56%
25	7.66%	1.56%	7.66%	1.56%
30	7.87%	1.56%	7.87%	1.56%
Estimated Annual Amount	\$ 17,923,000	\$ 3,517,000	\$ 17,684,000	\$ 3,756,000

Actuarial Assumptions***	June 30, 2002	June 30, 2001	Increase/Decrease
Annual Inflation Rate:	4.25%	4.25%	0.00%
Annual Investment Return:	8.25%	8.25%	0.00%
Average Annual Salary Increases:	6.25%	6.25%	0.00%

*Assumes benefit under Section 31676.16 for General members and Section 31664.2 for Safety and Probation members will be effective for the entire fiscal year following the June 30, 2002 valuation. Section 31664.1 for Safety and Probation members will be effective from January 1, 2005.

**For General members, the cost-sharing contribution is paid by all members including those with more than 30 years of service and is refundable to members who do not benefit from the enhanced formula. The first increase is August 30, 2003, and this amount is scheduled to increase to 2.00% on August 18, 2004 and 3.00% on March 1, 2005.

For Safety members, the 2.5% cost-sharing contribution is a weighted average of the cost-sharing for the 2003/2004 fiscal year. The cost-sharing contribution is paid by all members. The scheduled increases are 2.00% on July 1, 2003, to 3.00% on January 1, 2004, and to 5.00% on January 1, 2005. Members with over 30 years of service are also required to make the cost sharing contributions.

For Probation members, the 1.56% cost-sharing contribution is a weighted average of the cost-sharing for the 2003/2004 fiscal year. The cost-sharing contribution is paid by all members. The scheduled increases are 1.50% on October 12, 2003, to 2.50% on January 1, 2004, and 3.50% on January 1, 2005. Members with over 30 years of service are also required to make the cost sharing contributions.

*** See actuarial assumptions section for changes made due to experience analysis.

Summary of Valuation Results *(continued)*

SAN MATEO COUNTY
Employees' Retirement Association
Summary of Significant Actuarial Statistics and Measures
 (Old Formula)

Association Membership	June 30, 2002	June 30, 2001	Increase/Decrease
<i>Active Members</i>			
1. Number of Members	4,872	4,717	3.3%
2. Total Active Payroll	\$ 301,891,000	\$ 274,318,000	10.1%
3. Average Monthly Salary	\$ 5,164	\$ 4,846	6.6%
<i>Retired Members</i>			
Number of Members			
Service Retirement	2,638	2,611	1.0%
Disability Retirement	316	300	5.3%
Beneficiaries	477	459	3.9%
2. Total Retired Payroll	\$ 66,974,000	\$ 62,416,000	7.3%
3. Average Monthly Pension	\$ 1,627	\$ 1,543	5.4%
<i>Inactive Vested Members</i>			
1. Number of Members	833	747	11.5%
Asset Values (Net)			
Market Value	\$ 1,207,484,000	\$ 1,307,972,000	-7.7%
Return on Market Value	-6.40%	-4.83%	
Actuarial Value	\$ 1,448,980,000	\$ 1,435,592,000	0.9%
Return on Actuarial Value	2.08%	9.08%	
Valuation Assets	\$ 1,416,821,000	\$ 1,384,586,000	2.3%
Return on Valuation Assets	3.44%	9.20%	
Liability Values			
Actuarial Accrued Liability	\$ 1,541,053,000	\$ 1,404,060,000	9.8%
Unfunded Actuarial Accrued Liability (UAAL)	\$ 124,232,000	\$ 19,474,000	537.9%
Funding Ratios			
GASB No. 25*	91.9%	98.6%	-6.7%

* Based on valuation assets

Summary of Valuation Results *(continued)*

SAN MATEO COUNTY			
Employees' Retirement Association			
Summary of Significant Actuarial Statistics and Measures			
(New Formula)			
Association Membership	June 30, 2002	June 30, 2001	Increase/Decrease
<i>Active Members</i>			
1. Number of Members	4,872	4,717	3.3%
2. Total Active Payroll	\$ 301,891,000	\$ 274,318,000	10.1%
3. Average Monthly Salary	\$ 5,164	\$ 4,846	6.6%
<i>Retired Members</i>			
1. Number of Members			
Service Retirement	2,638	2,611	1.0%
Disability Retirement	316	300	5.3%
Beneficiaries	477	459	3.9%
2. Total Retired Payroll	\$ 66,974,000	\$ 62,416,000	7.3%
3. Average Monthly Pension	\$ 1,627	\$ 1,543	5.4%
<i>Inactive Vested Members</i>			
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Asset Values (Net)			
Market Value	\$ 1,207,484,000	\$ 1,307,972,000	-7.7%
Return on Market Value	-6.40%	-4.83%	
Actuarial Value	\$ 1,448,980,000	\$ 1,435,592,000	0.9%
Return on Actuarial Value	2.08%	9.08%	
Valuation Assets	\$ 1,416,821,000	\$ 1,384,586,000	2.3%
Return on Valuation Assets	3.44%	9.20%	
Liability Values			
Actuarial Accrued Liability	\$ 1,660,566,000	\$ 1,404,060,000	18.3%
Unfunded Actuarial Accrued Liability (UAAL)	\$ 243,746,000	\$ 19,474,000	1151.6%
Funding Ratios			
GASB No. 25*	85.3%	98.6%	-13.3%

* Based on valuation assets

Summary of Valuation Results *(continued)*

Explanation of Changes in Actuarial Values

Employer Contribution Rate

The average employer contribution rate increased from 11.66% calculated in the June 30, 2001 valuation to 18.69% in this valuation.

The gains and losses were as follows:

<u>Summary of (Gains) / Losses</u>	<u>Contribution Rate</u>	<u>Dollar Impact</u>
June 30, 2001 Rate	11.66%	\$ 35,211,000
Salary Increase lower than expected	(0.08%)	\$ (242,000)
Fewer withdrawals than expected	0.01%	\$ 30,000
Retiree COLA more than expected	0.20%	\$ 604,000
Asset (Gain) / Loss	1.44%	\$ 4,350,000
Reduction in UAAL Rate	(0.05%)	\$ (151,000)
Change due to Assumption Changes	1.94%	\$ 5,860,000
Change due to Amortization Period	(1.60%)	\$ (4,831,000)
Change due to Actuarial Asset Corridor	0.70%	\$ 2,113,000
Miscellaneous (Gains) / Losses	<u>(0.01%)</u>	<u>\$ (16,000)</u>
Total	2.55%	\$ 7,717,000
June 30, 2002, Rate (Old Formula)	14.21%	\$ 42,928,000
Change due to new formula	<u>4.48%</u>	<u>\$ 13,520,000</u>
June 30, 2002, rate (New Formula)	18.69%	\$ 56,448,000

Explanation of Gains/Losses

- Salaries for continuing employees increased by less than the 6.25% average increase assumed in the valuation.
- Retiree COLA more than expected – Retirees received a COLA which was more than the assumed COLA.
- Asset (Gain)/Loss – The Association's valuation assets earned less than the 8.25% return assumption.
- Reduction in UAAL rate – The total payroll was expected to increase by the inflation assumption of 4.25%. Since the total payroll increased by 10%, the UAAL rate is reduced as a percentage of pay.
- Change due to assumption changes – The changes in assumptions due to our experience study caused an increase in contribution rates.
- Change due to amortization period – The employer's contribution rate was reduced because the UAAL was amortized over a longer period of 20 years instead of the 9½ years.

Summary of Valuation Results *(continued)*

7. Change due to actuarial asset corridor – This change reflected the Board's action to adopt the 80%–120% market value corridor for valuation asset.
8. Miscellaneous (Gains)/Losses – Other rate changes with untraced sources.
9. Change due to the implementation of benefit Section 31676.16 for General Plans 1, 2, and 4, and Sections 31664.2 and 31664.1 for Safety and Probation plans. As instructed by the Association, we have also included a revision to Probation Plans 1 and 2. Rates now reflect that members in those two plans are entitled to a benefit calculated using a 1-year final average instead of the 3-year final average assumed in all prior valuations. The impact of this change is an increase of 0.07% of total payroll for the employer and an approximate 0.4% increase in the contribution rate for Probation Plans 1 and 2 members.

Member Contribution Rate

Member contribution rates changed as a result of the changes in actuarial assumptions. General Plans 1, 2, and 4 member rates are also 1% higher, Safety Plan member rates are 3% higher (2% effective July 1, 2003, and 3% effective January 1, 2004) and Probation Plan member rates are 2.5% higher (1.5% effective October 12, 2003, and 2.5% effective January 1, 2004) under the enhanced formula. Additional cost-sharing contributions scheduled after the 2003/2004 fiscal year have not been reflected.

As instructed by the Association, we have also included a revision to Probation Plans 1 and 2. Rates now reflect that members in those two plans are entitled to a benefit calculated using a 1-year final average instead of the 3-year final average assumed in all prior valuations.

Funding Ratio

The decrease in funding ratio is due primarily to investment losses and the implementation of the asset value corridor. The ratio also drops as a result of the General, Safety and Probation benefit enhancements.

Actuarial Assumptions

There are changes to the noneconomic assumptions used in this valuation. Those assumptions are described in detail in our November 19, 2002 triennial experience study report.

Section 3: 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 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 member 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 setting the economic assumptions. Section 3.4 of the SOP provides the following general steps for selecting economic assumptions for a specific measurement:

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

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

Actuarial Assumptions *(continued)*

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

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

Inflation

Recommendation

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

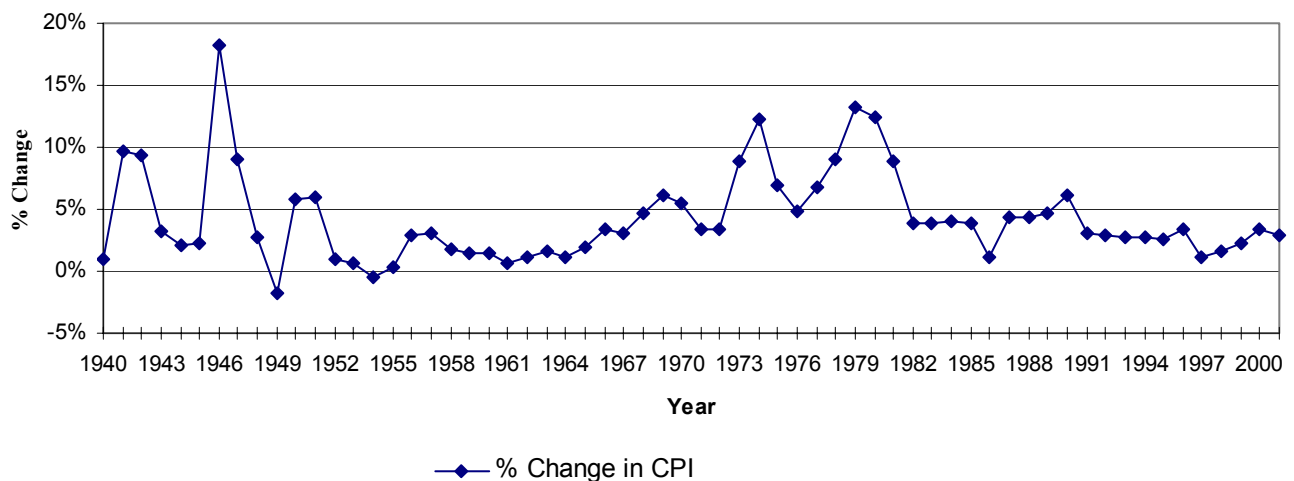
The analysis supporting our recommendation follows.

Setting the Assumption

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

Chart 1

Annual Increase in CPI (1940 Through 2001)



Actuarial Assumptions *(continued)*

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 History

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

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

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

*Geometric Average. CPI data is based on 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 and the low inflation levels experienced over the last 10 years, inflation has typically ranged between about 3.00% and 4.50%. The Bay Area CPI was approximately 4.10% over the last 5 years. After considering both long-term historical and recent trends, we have concluded that an appropriate range for long-term inflation is 3.50% to 4.50%.

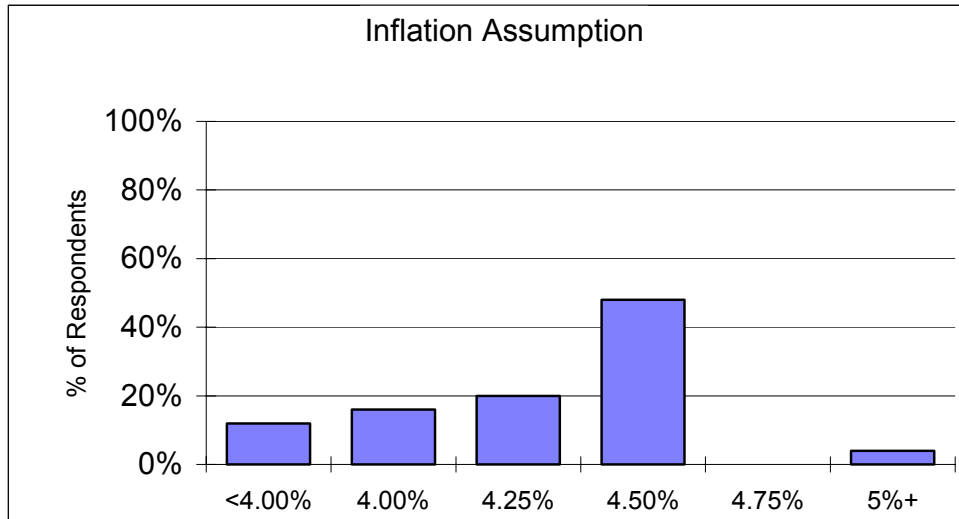
Forecasts of Inflation

We believe it is valuable to examine inflation assumptions adopted by similarly situated public retirement systems as an indicator of their long-term inflation expectations. Charts 2 and 3 provide the inflation assumptions used by the 25 California public retirement systems who responded to Mercer's 2001 survey of economic actuarial assumptions, and the 15 1937 Act respondents, respectively.

Based on this survey, the average inflation assumptions for the California Systems is about 4.25%.

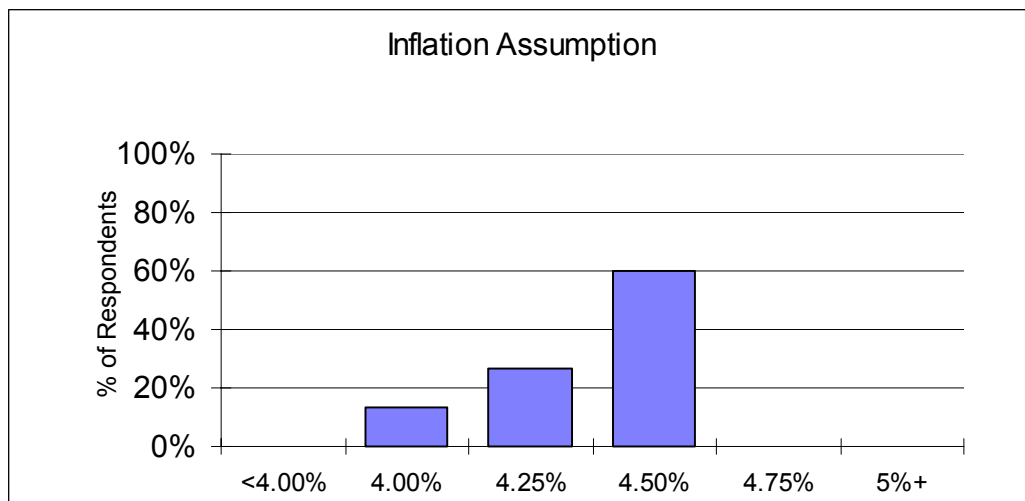
Actuarial Assumptions *(continued)*

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



Average	4.25%
25th Percentile	4.13%
50th Percentile	4.50%
75th Percentile	4.50%

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



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

Actuarial Assumptions *(continued)*

Treasury Yield Curves

Inflation expectations implicit in Treasury yield curves can vary widely over a relatively short period of time. One might average Treasury yield data over some period of time; however, we question whether utilizing inflation explications implicit in 2- to 3-year-old Treasury yields would be meaningful. Also, the usefulness of this data is hampered by the Federal Reserves use of interest rates as a means of controlling the economy. As a result, we have not included a treasury yield analysis as part of our inflation assumption development.

Summary

We conclude from our analysis that:

1. Historical inflation data indicates an assumption range of 3.5% to 4.5%;
2. The Bay Area CPI on which benefit increases are based has been around 4.1%; and
3. Inflation forecasts inherent in inflation assumptions adopted by similarly situated retirement systems are about 4.25%.

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

Investment Return

Recommendation

We recommend that the Board retain the current investment return assumption of 8.25%. However, we recommend that the Board continue to monitor investment expectations.

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.

Actuarial Assumptions *(continued)*

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.

Mercer Investment Consulting (MICI) has developed the following detailed rate of return assumptions by asset class. These expected real rates of return are taken from a number of sources which include consideration of future expectations as well as historical data. In addition, we included the expectations developed by the Board's investment consultants, Strategic Investment Solutions, Inc. (SIS).

Actuarial Assumptions *(continued)***Table 2**
Asset Class Returns Net of Inflation (Real)

<u>Asset Class</u>	<u>MICI</u> <u>Total Real Return</u>	<u>SIS</u> <u>Total Real Return</u>
Large Cap Stocks	6.0%	6.3%
Small Cap Stocks	6.5%	7.2%
International Stocks	6.2%	6.7%
Long-Term Bonds	3.5%	2.5%
Real Estate	5.4%	4.7%

Asset Allocation

SamCERA employs an independent investment consultant, SIS, to assist in establishing a target asset allocation and investment policy. The target asset allocation reflects the consultant's professional opinion on expected returns, SamCERA'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 of SamCERA's actual long-term asset allocation. The target asset allocation is 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 SamCERA asset allocations are shown in Table 3.

Table 3
SamCERA Asset Allocation At Market Value

	<u>Current</u>	<u>Target</u>
Large Cap Domestic Stocks	46%	40%
Small Cap Domestic Stocks		10%
International Stocks	14%	15%
Bonds and Fixed Income	33%	29%
Real Estate	7%	6%
Cash and Equivalents	0%	0%

Actuarial Assumptions *(continued)*

Applying the target asset allocation (Table 3) to Mercer's assumptions in Table 2 results in a real return of approximately 5.13%. If we apply the target asset allocation to the SIS assumptions, the result is a real rate of return of approximately 5.25%. There are a number of additional factors that must be considered before arriving at an appropriate rate 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:

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

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

An expense assumption 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:

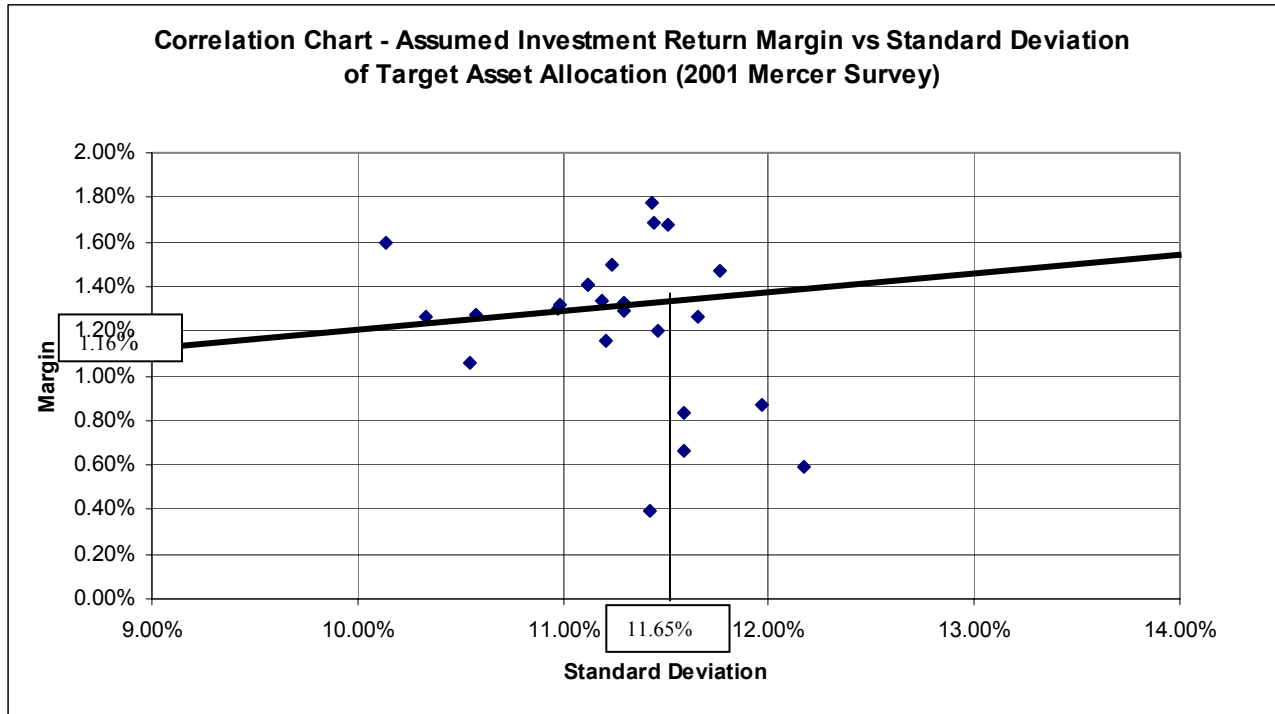
- The probability that actual future returns within asset classes will deviate statistically from historical averages;
- The effect that asset diversification will have on dampening statistical fluctuations of future returns; and
- The expectation that fund managers will underperform or outperform the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

Annual real rates of return have varied substantially over the years. For example, even if we expect the averages displayed in Table 2 to be a reasonable estimate of real returns in the future, we know there is some likelihood that future real rates will be more or less than historical averages. The most critical 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.

Actuarial Assumptions *(continued)*

As an aid in setting an appropriate risk adjustment, Chart 4 presents a distribution diagram developed from Mercer's 2001 survey of economic assumptions of 25 California public retirement systems. From this survey we are able to identify how the risk adjustments implicit within each system's investment return assumption varies with the system's risk level (as measured by the standard deviation of its target asset allocation). The 2001 survey indicated a significant relationship between the systems' implicit risk adjustments and the standard deviation of their portfolios. As a result, we determine the average risk adjustment based on the standard deviation of the Association's assets.

Chart 4



Actuarial Assumptions *(continued)*

As you can see from the chart, SamCERA's risk adjustment so calculated would be 1.16%, based on a target asset allocation standard deviation of 11.65% derived from generating future market simulations from the Association'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 underperform 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.

Development of Recommendation

Based on the above analysis, we arrive at a real rate of return assumption of 3.57% (average gross real rate of return of 5.13% minus 0.40% expenses minus a risk adjustment of 1.16%). Combining this rate and the inflation assumption of 4.25% results in an expected return of 7.82%.

If you maintain the investment return assumption of 8.25%, the risk adjustment is 0.47%. While this is significantly lower than the average risk adjustment for California retirement systems, this assumption is still within a reasonable range of assumptions.

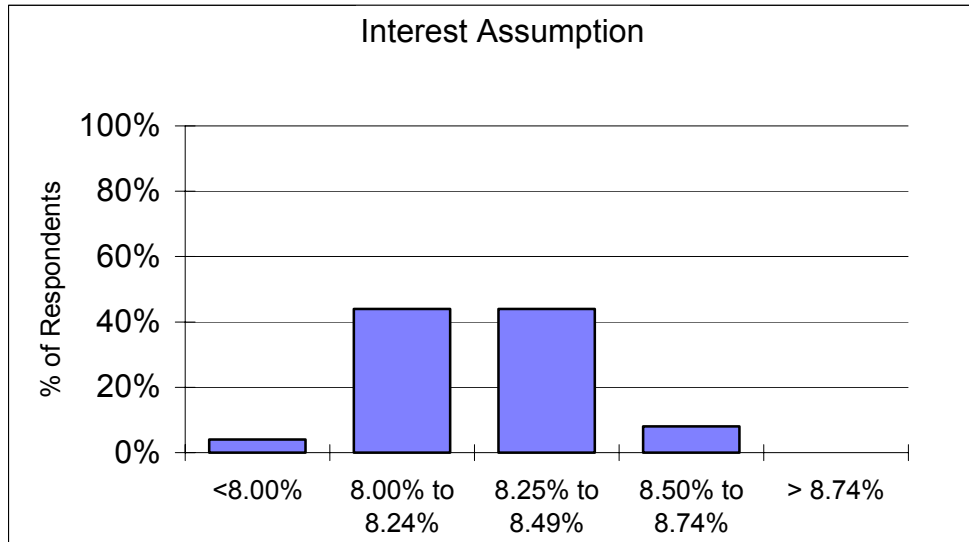
We also ran the Mercer Investment Consulting assumed rates of return through a proprietary Mercer program that adjusts expected rates of return based on the risk characteristics of each investment class, the correlation between expected returns for different asset classes, and the underlying inflation rate. Using this system and the same 0.4% assumption for investment expenses produces a reasonable range of investment return assumptions from 6.77% to 8.59% with a median 7.69% expected rate of return for the Association. The range provides returns from the 35th to the 65th percentile. The current assumption of 8.25% is at approximately the 60th percentile. As you know, there is no single rate that is appropriate for the investment return assumption. Because the Board's current assumption is higher than the midpoint of the acceptable range, if future expectations for returns decline, you may be required to lower the interest rate assumption. However, if expectations for future returns increase, the assumption will continue to be within the acceptable range of assumptions.

Comparison with Similarly Situated Associations

It is informational to compare the assumptions used by similarly situation retirement associations. Charts 5 and 6 provide the investment return assumptions used by the 25 California public retirement systems who responded to Mercer's 2001 survey of the economic actuarial assumptions, and the 15 1937 Act respondents, respectively.

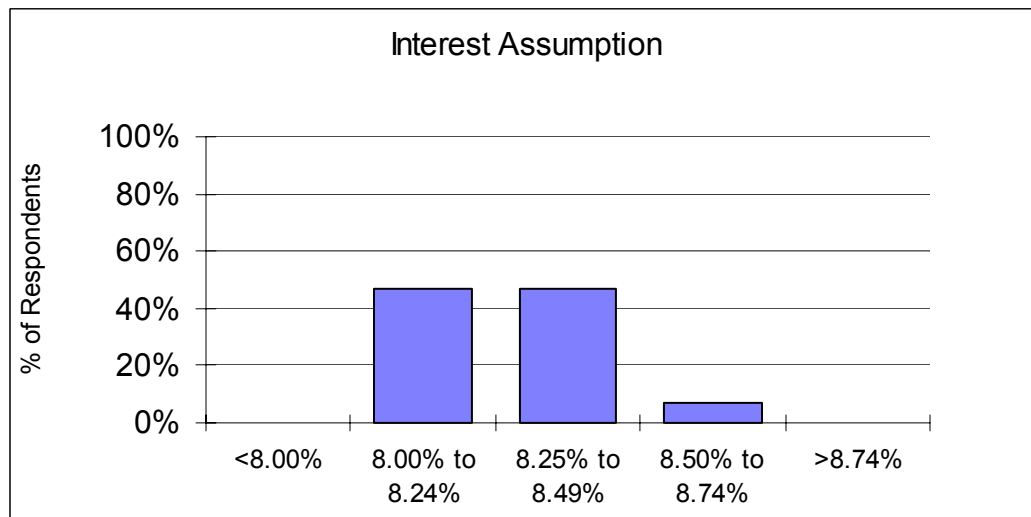
Actuarial Assumptions *(continued)*

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



Average	8.18%
25th Percentile	8.00%
50th Percentile	8.25%
75th Percentile	8.25%

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



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

Actuarial Assumptions *(continued)*

The average investment return rates from the survey for the groups surveyed is approximately 8.18%. As you can see, an investment return assumption between 8.25% and 8.49% is quite common among 1937 Act counties.

Summary

We conclude from our analysis that:

- Expected future return data suggests a reasonable range of between 6.77% and 8.59% for the investment return assumption, and
- Investment return assumptions adopted by similarly situated retirement systems are about 8.18%.

Based on this data, we believe an 8.25% investment return assumption remains reasonable.

Outlook for the Next Valuation

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

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

Actuarial Assumptions *(continued)*

Chart 7

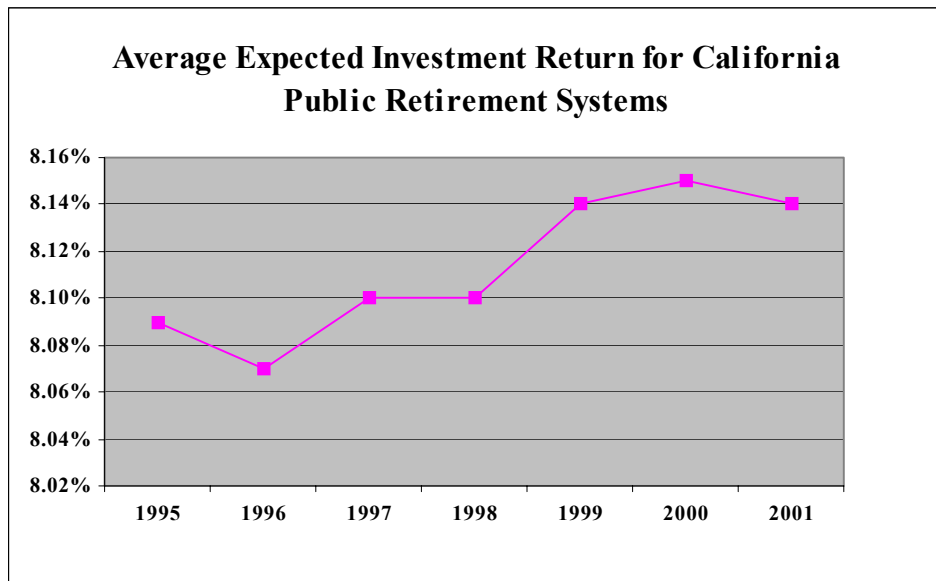
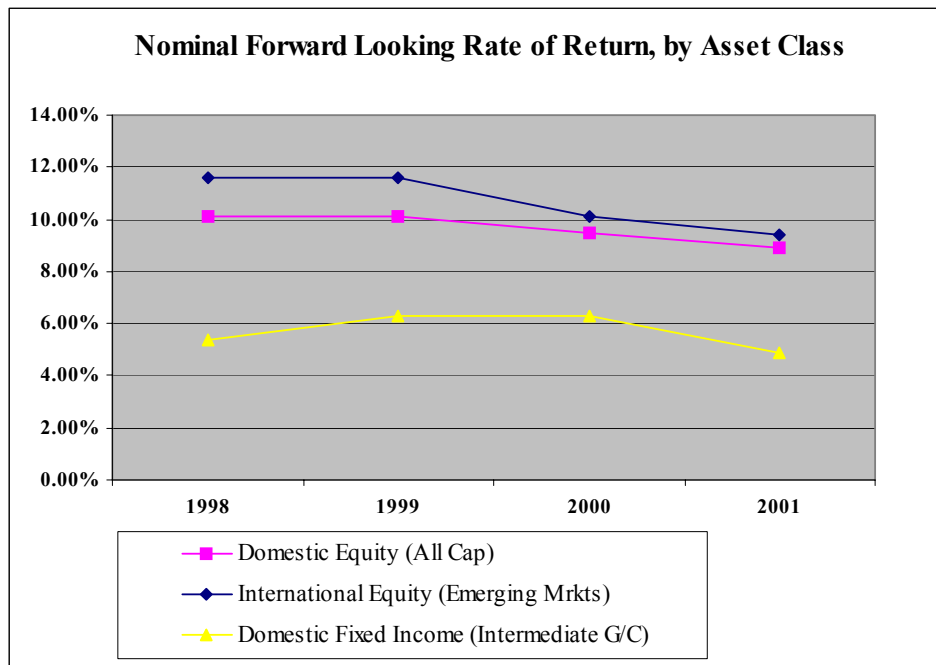


Chart 8



Actuarial Assumptions *(continued)*

The following table provides a brief summary of all actuarial assumptions:

<i>Valuation Interest Rate</i>	8.25%
<i>Inflation Assumption</i>	4.25%
<i>Interest Rate Credited To Active Member Accounts</i>	8.25%
<i>Post-Retirement Mortality</i>	
<i>(a) Service</i>	
<i>General Males</i>	1994 Group Annuity Mortality Table set back 1 year (Male)
<i>General Females</i>	1994 Group Annuity Mortality Table set back 2 years (Female)
<i>Safety and Probation Members</i>	1994 Group Annuity Mortality Table set forward 1 year (Male)
<i>(b) Beneficiaries</i>	
<i>General Males</i>	1994 Group Annuity Mortality Table set back 1 year (Male)
<i>General Females</i>	1994 Group Annuity Mortality Table set back 2 years (Female)
<i>Safety and Probation Members</i>	1994 Group Annuity Mortality Table set back 2 years (Female)
<i>(c) Disability</i>	
<i>General</i>	1981 General Disability Mortality Table set back 4 years
<i>Safety</i>	1981 Safety Disability Mortality Table set back 2 years
<i>(d) For Employee Contribution</i>	
<i>Rate Purposes</i>	
<i>General</i>	1994 Group Annuity Mortality Table no setback (Female)
<i>Safety</i>	1994 Group Annuity Mortality Table set forward 1 year (Male)
<i>Pre-Retirement Mortality</i>	See Appendix B
<i>Withdrawal Rates</i>	See Appendix B
<i>Disability Rates</i>	See Appendix B
<i>Service Retirement Rates</i>	See Appendix B
<i>Salary Scale</i>	Total increases of 6.25% per year reflecting approximately 4.25% for inflation and approximately 2.00% for merit and longevity. Age based tables are used for the merit and longevity assumption.
<i>Value of Assets for Contribution Purposes</i>	Actuarial Value as described in Actuarial Valuation Methods Section
<i>Percentage of Members Married at Retirement</i>	85% for General male, Safety and Probation members. 55% for General female members
<i>Members Eligible for Reciprocal Benefits</i>	50%
<i>Additional Employer Normal Cost for General Plan 3</i>	An additional cost equal to 2% of payroll was added to the Normal Cost for General Plan 3 to anticipate the future increase in cost from those members expected to transfer to General Plan 2.

Actuarial Valuation Methods *(continued)*

Section 4: 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 20-year period following June 30, 2002.

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

This methodology allocates plans with the larger UAAL rates larger rate reductions. Consistent application of this approach will require plans with larger UAAL rates be allocated with larger rate increases if SamCERA experiences actuarial losses in the future.

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. The members do not contribute towards the cost of living benefit.

The County Contributions are actuarially determined to provide for the balance of the contributions needed to fund the benefits promised under the Retirement System. The employer rates calculated in this report reflect the payment of 15% member contribution rate on a non-refundable basis by the County for the Deputy Sheriffs, Correctional Officers and Sheriff Sergeants. In addition, the County pays 100 percent of management employees' and unrepresented attorneys' contributions and 50 percent of confidential employees' and remaining Sheriff's Sergeants contributions on a refundable basis. However, as instructed by the Association, the employer rates have not been adjusted to reflect the payment of 100% of management employee and unrepresented attorney and 50% of confidential employees and remaining Sheriff's Sergeants contribution rates.

We understand that under the enhanced formula, General members will share in 1%, 2%, and 3% of the employer's contributions effective August 30, 2003, August 28, 2004, and March 1, 2005, respectively. Safety members will share in 2%, 3% and 5% effective July 1, 2003, January 1, 2004 and January 1, 2005, respectively. Probation members will share in 1.5%, 2.5% and 3.5% effective October 12, 2003, January 1, 2004 and January 1, 2005, respectively.

Our results in this report have been adjusted to reflect the member cost sharing during the 2003/2004 fiscal year.

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.

Actuarial Valuation Methods *(continued)*

Contingency Reserve

As instructed by the Board, we have included the 1% minimum statutory Contingency Reserve in determining the employer rates in this valuation. Please note that this will cause the employer rate to decrease this year but the Reserve may no longer be applied again to provide a rate reduction in the future.

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. The actuarial value of assets is constrained to be no more than 120% and no less the 80% of market value of assets.

Calculation of Smoothed Market Value of Assets June 30, 2002

From	To	Total Actual Market Return (Net)	Expected Market Return (Net)	Investment Gain (Loss)	Deferred Factor	Deferred Return
7/97	12/97	\$55,406,564	\$40,075,645	\$15,330,919	0	\$0
1/98	6/98	\$112,680,907	\$42,418,662	\$70,262,245	0.1	\$7,026,225
7/98	2/98	\$17,930,384	\$47,015,616	(\$29,085,232)	0.2	(\$5,817,046)
1/99	6/99	64,623,459	47,810,457	\$16,813,003	0.3	\$5,043,900
7/99	12/99	113,267,236	51,326,419	\$61,940,817	0.4	\$24,776,327
1/00	6/00	8,714,823	55,171,686	(46,456,862)	0.5	(\$23,228,431)
7/00	12/00	(36,739,096)	57,817,173	(94,556,269)	0.6	(\$56,733,761)
1/01	6/01	(30,502,489)	55,649,913	(86,152,402)	0.7	(\$60,306,681)
7/01	12/01	(24,556,062)	54,592,032	(79,148,094)	0.8	(\$63,318,475)
1/02	6/02	(59,362,561)	52,701,199	(112,063,760)	0.9	(\$100,857,384)
1. Total Deferred Return						(\$273,415,326)
2. Total Deferred Return (Limited to 20% of Market Return)						(\$241,496,716)
3. Market Value						\$1,207,483,580
4. Actuarial Value of Assets for Funding Ratio (Item 2 - Item 1)						\$1,448,980,296
5. Non-Valuation Reserves and Designations:						
a. Medicare Part B Reserve						\$14,739
b. Ventura Reserve						\$32,145,000
c. Total						<u>\$32,159,739</u>
6. Actuarial Value of Assets for Valuation (Item 4 - Item 5)						\$1,416,820,557

Please note that once the Association begins to earn more than the assumed interest rate of 4.125% (for every six months), we will have to recognize the deferred investment losses accumulated within the five-year smoothing methodology.

At that time, we will present to the Board our recommendation as to the pattern as to how the investment losses should be recognized (e.g., one-ninth of the deferred investment losses should be recognized during each of the next nine interest crediting cycles).

Actuarial Valuation Methods *(continued)*

Section 5: Actuarial Valuation Results

Employer and Member Contribution Rates

The following Table 4 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.

Valuation Basis (Inflation/Investment Return/ Salary Increase)	Employer Contributions		Member Contributions	
	Rate*	Annual Amount*	Rate*	Annual Amount
Current Rates (4.25%/8.25%/6.25%)	11.66%	\$ 35,211,000	5.86%	\$ 17,684,000
Recalculated Rates (Old Formula) (4.25%/8.25%/6.25%)	14.21%	\$ 42,928,000	5.92%	\$ 17,882,000
Recalculated Rates (New Formula)** (4.25%/8.25%/6.25%)	18.69%	\$ 56,448,000	7.10%	\$ 21,440,000

* Based on total annual salaries as of June 30, 2002 of \$301,891,000.

** Rates include cost sharing of 1% for General, 2.5% for Safety and 1.56% for Probation members.

Recommendation

Mercer recommends the adoption of the valuation basis and contribution rates according to the Recalculated Rates. The component parts of the current and recalculated employer and member contribution rates broken down among the various member categories can be found in Tables 5 and 6, respectively.

Please note that the current and recalculated rates are calculated assuming no subsidies of normal costs between plans and are before cost sharing.

Additional Considerations in Development of Employer Contributions

1. The contribution rates we developed for the employer under the old and the new formula assume that the old or the new formula will be in effect for the entire fiscal year following the June 30, 2002, valuation.

They have not been adjusted to reflect that the actual implementation dates, for the General plans will be two months after the beginning of the 2003–2004 fiscal year.

2. Since General Plan 3 members are not included in the benefit improvement, we have not changed their normal cost.

Actuarial Valuation Results *(continued)*

However, in pricing the benefit improvement, we told the County that some current General Plan 3 members are going to convert to General Plan 2 or Plan 4 during the year and the County's annual contributions may increase by about \$0.5 million to \$1.0 million as a result of these conversions.

3. We understand that General member benefits may be improved to Section 31676.14 in the future if new legislation will authorize the payment of higher member contribution.

We have not reflected the cost to provide Section 31676.14 in this study.

4. For Safety and Probation members, we have reflected the two phase implementation date as if the 3% at 55 formula (Section 31664.2) were implemented for the fiscal year following June 30, 2002, and the 3% at 50 formula (Section 31664.1) were implemented January 1, 2005.

As instructed by the Association, we have also included a revision to Probation Plans 1 and 2. Rates now reflect that members in those two plans are entitled to a benefit calculated using a 1-year final average instead of the 3-year final average assumed in all prior valuations.

Actuarial Valuation Results *(continued)***Explanation of Changes in Actuarial Values****Employer Contribution Rate**

The average employer contribution rate increased from 11.66% calculated in the June 30, 2001 valuation to 18.69% in this valuation.

The gains and losses were as follows:

<u>Summary of (Gains) / Losses</u>	<u>Contribution Rate</u>	<u>Dollar Impact</u>
June 30, 2001 Rate	11.66%	\$ 35,211,000
Salary Increase lower than expected	(0.08%)	\$ (242,000)
Fewer withdrawals than expected	0.01%	\$ 30,000
Retiree COLA more than expected	0.20%	\$ 604,000
Asset (Gain) / Loss	1.44%	\$ 4,350,000
Reduction in UAAL Rate	(0.05%)	\$ (151,000)
Change due to Assumption Changes	1.94%	\$ 5,860,000
Change due to Amortization Period	(1.60%)	\$ (4,831,000)
Change due to Actuarial Asset Corridor	0.70%	\$ 2,113,000
Miscellaneous (Gains) / Losses	<u>(0.01%)</u>	<u>\$ (16,000)</u>
Total	2.55%	\$ 7,717,000
June 30, 2002, Rate (Old Formula)	14.21%	\$ 42,928,000
Change due to new formula	<u>4.48%</u>	<u>\$ 13,520,000</u>
June 30, 2002, rate (New Formula)	18.69%	\$ 56,448,000

Explanation of Gains/Losses

1. Salaries for continuing employees increased by less than the 6.25% average increase assumed in the valuation.
2. Retiree COLA more than expected – Retirees received a COLA which was more than the assumed COLA.
3. Asset (Gain)/Loss – The Association's valuation assets earned less than the 8.25% return assumption.
4. Reduction in UAAL rate – The total payroll was expected to increase by the inflation assumption of 4.25%. Since the total payroll increased by 10%, the UAAL rate is reduced as a percentage of pay.
5. Change due to assumption changes – The changes in assumptions due to our experience study caused an increase in contribution rates.
6. Change due to amortization period – The employer's contribution rate was reduced because the UAAL was amortized over a longer period of 20 years instead of the 9½ years.

Actuarial Valuation Results *(continued)*

7. Change due to actuarial asset corridor – This change reflected the Board's action to adopt the 80%–120% market value corridor for valuation asset.
8. Miscellaneous (Gains)/Losses – Other rate changes with untraced sources.
9. Change due to the implementation of benefit Section 31676.16 for General Plans 1, 2, and 4, and Sections 31664.2 and 31664.1 for Safety and Probation plans. As instructed by the Association, we have also included a revision to Probation Plans 1 and 2. Rates now reflect that members in those two plans are entitled to a benefit calculated using a 1-year final average instead of the 3-year final average assumed in all prior valuations. The impact of this change is an increase of 0.07% of total payroll for the employer and an approximate 0.4% increase in the contribution rate for Probation Plans 1 and 2 members.

Member Contribution Rate

Member contribution rates changed as a result of the changes in actuarial assumptions. General Plans 1, 2, and 4 member rates are also 1% higher, Safety Plan member rates are 3% higher (2% effective July 1, 2003, and 3% effective January 1, 2004) and Probation Plan member rates are 2.5% higher (1.5% effective October 12, 2003, and 2.5% effective January 1, 2004) under the enhanced formula. Additional cost-sharing contributions scheduled after the 2003/2004 fiscal year have not been reflected.

As instructed by the Association, we have also included a revision to Probation Plans 1 and 2. Rates now reflect that members in those two plans are entitled to a benefit calculated using a 1-year final average instead of the 3-year final average assumed in all prior valuations.

Funding Ratio

The decrease in funding ratio is due primarily to investment losses and the implementation of the asset value corridor. The ratio also drops as a result of the General, Safety and Probation benefit enhancements.

Actuarial Assumptions

There are changes to the noneconomic assumptions used in this valuation. Those assumptions are described in detail in our November 19, 2002 triennial experience study report.

Actuarial Valuation Results *(continued)*

Table 5
Summary of Employee Basic Contribution Rates

Current Member Rates

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

GENERAL			SAFETY*			PROBATION	
Entry Age	Plan 1 and 2 Rate	Plan 4 Rate	Entry Age	Plan 1 and 2 Rate	Plan 4 Rate	Entry Age	Plan 1, 2 and 4 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%

Recommended Member Rates (Old Formula)

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

GENERAL			SAFETY*			PROBATION	
Entry Age	Plan 1 and 2 Rate	Plan 4 Rate	Entry Age	Plan 1 and 2 Rate	Plan 4 Rate	Entry Age	Plan 1, 2 and 4 Rate
25	5.54%	5.28%	21	6.77%	6.44%	21	7.58%
35	5.90%	5.63%	25	6.84%	6.51%	25	7.66%
45	6.63%	6.32%	30	7.03%	6.69%	30	7.87%

Recommended Member Rates (New Formula)

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

GENERAL				PROBATION***			
Entry Age	Plan 1 and 2 Rate	Plan 4 Rate	Cost Sharing**	Entry Age	Plan 1 and 2 Rate	Plan 4 Rate	Cost Sharing**
25	5.54%	5.28%	1.00%	21	7.97%	7.58%	1.56%
35	5.90%	5.63%	1.00%	25	8.05%	7.66%	1.56%
45	6.63%	6.32%	1.00%	30	8.27%	7.87%	1.56%

* 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%.

**For General members, the cost-sharing contribution is paid by all members including those with more than 30 years of service and is refundable to members who do not benefit from the enhanced formula. The first increase is August 30, 2003, and this amount is scheduled to increase to 2.00% on August 18, 2004 and 3.00% on March 1, 2005. For Safety members, the 2.5% cost-sharing contribution is a weighted average of the cost-sharing for the 2003/2004 fiscal year. The cost-sharing contribution is paid by all members. The scheduled increases are 2.00% on July 1, 2003, to 3.00% on January 1, 2004, and to 5.00% on January 1, 2005. Members with over 30 years of service are also required to make the cost sharing For Probation members, the 1.56% cost-sharing contribution is a weighted average of the cost-sharing for the 2003/2004 fiscal year. The cost-sharing contribution is paid by all members. The scheduled increases are 1.50% on October 12, 2003, to 2.50% on January 1, 2004, and 3.50% on January 1, 2005. Members with over 30 years of service are also required to make the cost sharing contributions.

***Probation member rates do not reflect the 15% county pickup effective October 12, 2003.

Actuarial Valuation Results (continued)

Table 6


**Employer Contribution Rate Detail
Current Rates
4.25% inflation, 8.25% interest, and a 6.25% salary increase assumption**

GENERAL								
	Plan 1		Plan 2		Plan 3		Plan 4	
	<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	11.70%	\$ 3,081,000	10.19%	\$ 12,242,000	6.18%	\$ 712,000	8.76%	\$ 8,103,000
Contribution to UAAL	0.85%	\$ 224,000	0.74%	\$ 889,000	0.70%	\$ 81,000	0.57%	\$ 527,000
Total	12.55%	\$ 3,305,000	10.93%	\$ 13,131,000	6.88%	\$ 793,000	9.33%	\$ 8,630,000
Payroll		\$ 26,334,000		\$ 120,136,000		\$ 11,526,000		\$ 92,506,000
SAFETY								
	Plan 1		Plan 2		Plan 4			
	<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	20.01%	\$ 1,314,000	16.88%	\$ 2,999,000	15.43%	\$ 1,554,000		
Contribution to UAAL	1.59%	\$ 104,000	1.55%	\$ 275,000	1.29%	\$ 130,000		
Total	21.60%	\$ 1,418,000	18.43%	\$ 3,274,000	16.72%	\$ 1,684,000		
Payroll		\$ 6,569,000		\$ 17,764,000		\$ 10,072,000		
PROBATION								
	Plan 1		Plan 2		Plan 4			
	<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	24.91%	\$ 542,000	16.33%	\$ 1,129,000	13.68%	\$ 1,101,000		
Contribution to UAAL	0.53%	\$ 12,000	1.49%	\$ 103,000	1.11%	\$ 89,000		
Total	25.44%	\$ 554,000	17.82%	\$ 1,232,000	14.79%	\$ 1,190,000		
Payroll		\$ 2,176,000		\$ 6,916,000		\$ 8,050,000		
Average Rate for the total group =					11.66%			

Actuarial Valuation Results *(continued)*

Table 6 (Cont'd)

**Employer Contribution Rate Detail
Recommended Rates (Old Formula)
4.25% inflation, 8.25% interest, and a 6.25% salary increase assumption**

GENERAL								
	Plan 1		Plan 2		Plan 3		Plan 4	
	<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	11.58%	\$ 3,049,000	10.67%	\$ 12,819,000	6.70%	\$ 772,000	8.95%	\$ 8,279,000
Contribution to UAAL	6.43%	\$ 1,693,000	2.46%	\$ 2,955,000	2.00%	\$ 231,000	1.56%	\$ 1,443,000
 Payroll	18.01%	\$ 4,742,000	13.13%	\$ 15,774,000	8.70%	\$ 1,003,000	10.51%	\$ 9,722,000
Payroll		\$ 26,334,000		\$ 120,136,000		\$ 11,526,000		\$ 92,506,000
SAFETY								
	Plan 1		Plan 2		Plan 4			
	<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	21.64%	\$ 1,422,000	18.02%	\$ 3,201,000	16.23%	\$ 1,635,000		
Contribution to UAAL	10.04%	\$ 660,000	4.79%	\$ 851,000	3.49%	\$ 352,000		
Total	31.68%	\$ 2,082,000	22.81%	\$ 4,052,000	19.72%	\$ 1,987,000		
Payroll		\$ 6,569,000		\$ 17,764,000		\$ 10,072,000		
PROBATION								
	Plan 1		Plan 2		Plan 4			
	<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	27.06%	\$ 589,000	17.02%	\$ 1,177,000	14.45%	\$ 1,163,000		
Contribution to UAAL	4.23%	\$ 92,000	4.40%	\$ 304,000	2.99%	\$ 241,000		
Total	31.29%	\$ 681,000	21.42%	\$ 1,481,000	17.44%	\$ 1,404,000		
Payroll		\$ 2,176,000		\$ 6,916,000		\$ 8,050,000		
Average Rate for the total group =					14.21%			

Actuarial Valuation Results (continued)

Table 6 (Cont'd)

**Employer Contribution Rate Detail
Recommended Rates (New Formula)
4.25% inflation, 8.25% interest, and a 6.25% salary increase assumption**

GENERAL								
	Plan 1		Plan 2		Plan 3		Plan 4	
	<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*	13.56%	\$ 3,571,000	11.80%	\$ 14,176,000	6.70%	\$ 772,000	9.77%	\$ 9,038,000
Contribution to UAAL	<u>8.51%</u>	<u>\$ 2,241,000</u>	<u>4.54%</u>	<u>\$ 5,454,000</u>	<u>4.08%</u>	<u>\$ 470,000</u>	<u>3.64%</u>	<u>\$ 3,367,000</u>
Total	22.07%	\$ 5,812,000	16.34%	\$ 19,630,000	10.78%	\$ 1,242,000	13.41%	\$ 12,405,000
Payroll		\$ 26,334,000		\$ 120,136,000		\$ 11,526,000		\$ 92,506,000
SAFETY								
	Plan 1		Plan 2		Plan 4			
	<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	25.06%	\$ 1,646,000	21.91%	\$ 3,892,000	20.14%	\$ 2,029,000		
Contribution to UAAL	<u>17.37%</u>	<u>\$ 1,141,000</u>	<u>12.12%</u>	<u>\$ 2,153,000</u>	<u>10.82%</u>	<u>\$ 1,090,000</u>		
Total	42.43%	\$ 2,787,000	34.03%	\$ 6,045,000	30.96%	\$ 3,119,000		
Payroll		\$ 6,569,000		\$ 17,764,000		\$ 10,072,000		
PROBATION								
	Plan 1		Plan 2		Plan 4			
	<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	32.70%	\$ 712,000	25.12%	\$ 1,737,000	19.51%	\$ 1,571,000		
Contribution to UAAL	<u>8.61%</u>	<u>\$ 187,000</u>	<u>8.78%</u>	<u>\$ 607,000</u>	<u>7.37%</u>	<u>\$ 594,000</u>		
Total	41.31%	\$ 899,000	33.90%	\$ 2,344,000	26.88%	\$ 2,165,000		
Payroll		\$ 2,176,000		\$ 6,916,000		\$ 8,050,000		
Average Rate for the total group =					18.69%			

*Normal costs have been adjust to account for the cost sharing of 1% for General members, 2.5% for Safety members and 1.56% for Probation members.

Actuarial Valuation Methods *(continued)*

Section 6: 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. The Association's funding status is calculated using the GASB25 measure:

Funding Status Measure	Target Assets	Actual Assets
GASB No. 25 Funding Method Progress	Actuarial Accrued Liability	Actuarial Value of Assets

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 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, 2002 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)
6/30/1995	\$ 651,217,000	\$ 945,417,000	\$ 294,200,000	68.9%	\$ 188,822,000	155.8%
6/30/1996	\$ 728,369,000	\$ 963,162,000	\$ 234,793,000	75.6%	\$ 187,926,000	124.9%
6/30/1997	\$ 856,679,000	\$ 1,037,431,000	\$ 180,752,000	82.6%	\$ 196,391,000	92.0%
6/30/1998	\$ 992,314,000	\$ 1,104,070,000	\$ 111,756,000	89.9%	\$ 211,529,000	52.8%
6/30/1999	\$ 1,109,417,000	\$ 1,205,554,000	\$ 96,137,000	92.0%	\$ 238,864,000	40.2%
6/30/2000	\$ 1,271,565,000	\$ 1,291,694,000	\$ 20,129,000	98.4%	\$ 259,075,000	7.8%
6/30/2001	\$ 1,416,821,000	\$ 1,404,060,000	\$ 19,474,000	98.6%	\$ 274,318,000	7.1%
6/30/2002	\$ 1,416,821,000	\$ 1,541,053,000	\$ 124,232,000	91.9%	\$ 301,891,000	41.2%
New Formula						
6/30/2002	\$ 1,416,821,000	\$ 1,660,566,000	\$ 243,745,000	85.3%	\$ 301,891,000	80.7%

⁽¹⁾ Exclude accounts payable

Section 7: 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 ten-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

Funding History *(continued)*

**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 Contributions to Association	(10) Prior Year Benefit Payments	(11) Prior Year Free Cash Flow(9)-(10)
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
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
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
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
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
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
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
June 30, 2000	\$1,291,694	\$1,271,565	\$20,129	98.4%	8.25%	14.40%	12.14%	5.79%	\$53,078	\$54,986	(\$1,908)
June 30, 2001	\$1,404,060	\$1,384,586	\$19,474	98.6%	8.25%	9.08%	11.78%	6.03%	\$54,769	\$60,652	(\$5,883)
June 30, 2002	\$1,541,053	\$1,416,821	\$124,232	91.9%	8.25%	2.08%	14.21%	5.92%	\$50,168	\$66,737	(\$16,569)
New Formula											
June 30, 2002	\$1,660,566	\$1,416,821	\$243,745	85.3%	8.25%	2.08%	18.62%	7.10%	\$50,168	\$66,737	(\$16,569)

Section 8: 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:

		Old Formula	
<u>Member Category</u>		<u>Contribution Rate</u>	<u>Annual Amount</u>
General Plan 1		11.58%	\$ 3,049,000
General Plan 2		10.67%	\$ 12,819,000
General Plan 3		6.70%	\$ 772,000
General Plan 4		8.95%	\$ 8,279,000
Safety Plan 1		21.64%	\$ 1,422,000
Safety Plan 2		18.02%	\$ 3,201,000
Safety Plan 4		16.23%	\$ 1,635,000
Probation Plan 1		27.06%	\$ 589,000
Probation Plan 2		17.02%	\$ 1,177,000
Probation Plan 4		14.45%	\$ 1,163,000

Actuarial Balance Sheet *(continued)*

New Formula

<u>Member Category</u>	<u>Contribution Rate</u>	<u>Annual Amount</u>
General Plan 1	13.56%	\$ 3,571,000
General Plan 2	11.80%	\$ 14,176,000
General Plan 3	6.70%	\$ 772,000
General Plan 4	9.77%	\$ 9,038,000
Safety Plan 1	25.06%	\$ 1,646,000
Safety Plan 2	21.91%	\$ 3,892,000
Safety Plan 4	24.70%	\$ 2,029,000
Probation Plan 1	32.70%	\$ 712,000
Probation Plan 2	25.12%	\$ 1,737,000
Probation Plan 4	19.51%	\$ 1,571,000

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

- 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:

Old Formula

<u>Member Category</u>	<u>Contribution Rate</u>	<u>Annual Amount*</u>
General Plan 1	6.43%	\$ 1,693,000
General Plan 2	2.46%	\$ 2,955,000
General Plan 3	2.00%	\$ 231,000
General Plan 4	1.56%	\$ 1,443,000
Safety Plan 1	10.04%	\$ 660,000
Safety Plan 2	4.79%	\$ 851,000
Safety Plan 4	3.49%	\$ 352,000
Probation Plan 1	4.23%	\$ 92,000
Probation Plan 2	4.40%	\$ 304,000
Probation Plan 4	2.99%	\$ 241,000

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

Actuarial Balance Sheet *(continued)*

New Formula

<u>Member Category</u>	<u>Contribution Rate</u>	<u>Annual Amount*</u>
General Plan 1	8.51%	\$ 2,241,000
General Plan 2	4.54%	\$ 5,454,000
General Plan 3	4.08%	\$ 470,000
General Plan 4	3.64%	\$ 3,367,000
Safety Plan 1	17.37%	\$ 1,141,000
Safety Plan 2	12.12%	\$ 2,153,000
Safety Plan 4	2%	\$ 1,090,000
Probation Plan 1	6.01%	\$ 187,000
Probation Plan 2	8.78%	\$ 607,000
Probation Plan 4	7.37%	\$ 594,000

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

Actuarial Balance Sheet (continued)

Actuarial Balance Sheet as of June 30, 2002
(Old Formula)

ASSETS			
	<u>Basic</u>	<u>COL</u>	<u>Total</u>
1. Total Assets at Actuarial Value	\$ 927,027,326	\$ 521,938,236	\$ 1,448,965,562
2. Present Value of Future Member Contributions	153,216,058	0	153,216,058
3. Present Value of Future Employer Contributions on Account of:			
a) Normal Cost	186,879,984	84,789,859	271,669,843
b) Unfunded Actuarial Accrued Liability	55,544,138	68,688,150	124,232,288
4. Total Actuarial Assets	<u>\$ 1,322,667,506</u>	<u>\$ 675,416,245</u>	<u>\$ 1,998,083,751</u>

LIABILITIES			
	<u>Basic</u>	<u>COL</u>	<u>Total</u>
5. Present Value of Retirement Allowances Payable to Present Retired Members	\$ 415,479,031	\$ 405,668,845	\$ 821,147,876
6. Present Value of Retirement Allowances to be Granted for:			
a) Service Retirement	749,910,309	238,713,088	988,623,397
b) Disability Retirement	93,042,494	27,522,218	120,564,712
7. Present Value of Death Benefits to be Granted for:			
a) Lump Sum Death Benefit and Return of Contributions	110,390	0	110,390
b) Death while Eligible to Retire	11,863,038	2,602,822	14,465,860
c) Duty Death	2,822,972	909,272	3,732,244
8. Present Value of Members' Contributions to be Returned Upon Withdrawal Before Retirement	17,294,272	0	17,294,272
9. Contingent Ventura Liability Reserve	32,145,000	0	32,145,000
10. Total Actuarial Liabilities	<u>\$ 1,322,667,506</u>	<u>\$ 675,416,245</u>	<u>\$ 1,998,083,751</u>

Actuarial Balance Sheet (continued)

Actuarial Balance Sheet as of June 30, 2002 (New Formula)			
ASSETS			
	<u>Basic</u>	<u>COL</u>	<u>Total</u>
1. Total Assets at Actuarial Value	\$ 927,027,326	\$ 521,938,236	\$ 1,448,965,562
2. Present Value of Future Member Contributions	139,124,031	0	139,124,031
3. Present Value of Future Employer Contributions on Account of:			
a) Normal Cost	214,184,911	89,650,557	303,835,468
b) Unfunded Actuarial Accrued Liability	135,991,425	107,754,319	243,745,744
4. Total Actuarial Assets	<u>\$ 1,416,327,693</u>	<u>\$ 719,343,112</u>	<u>\$ 2,135,670,805</u>
LIABILITIES			
	<u>Basic</u>	<u>COL</u>	<u>Total</u>
5. Present Value of Retirement Allowances Payable to Present Retired Members	\$ 415,479,031	\$ 405,668,845	\$ 821,147,876
6. Present Value of Retirement Allowances to be Granted for:			
a) Service Retirement	855,136,217	285,263,397	1,140,399,614
b) Disability Retirement	81,237,897	25,250,234	106,488,131
7. Present Value of Death Benefits to be Granted for:			
a) Lump Sum Death Benefit and Return of Contributions	109,935	0	109,935
b) Death while Eligible to Retire	10,436,325	2,395,046	12,831,371
c) Duty Death	2,290,311	765,590	3,055,901
8. Present Value of Members' Contributions to be Returned Upon Withdrawal Before Retirement	19,492,977	0	19,492,977
9. Contingent Ventura Liability Reserve	32,145,000	0	32,145,000
10. Total Actuarial Liabilities	<u>\$ 1,416,327,693</u>	<u>\$ 719,343,112</u>	<u>\$ 2,135,670,805</u>



Section 9: 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 6/30/01	\$ 1,307,971,618	\$ 1,435,591,843	\$ 1,384,586,340
Contributions			
Employer and Member	\$ 50,167,759	\$ 50,167,759	\$ 50,167,759
Benefits Paid to Members	\$ 66,737,174	\$ 66,737,174	\$ 65,743,200
Expenses Paid	\$ 1,508,527	\$ 1,508,527	\$ 1,508,527
Investment Earnings	\$ (82,410,096)	\$ 31,466,395	\$ 49,318,195
Value of Assets at 6/30/02	\$ 1,207,483,580	\$ 1,448,980,296	\$ 1,416,820,561 *
NET RATE OF RETURN	-6.40%	2.08%	3.44%

* Net of \$37,714,792 established to offset future contingent Ventura liabilities.

The 3.44% rate of return on the valuation assets is less than the 8.25% rate assumed for the prior year. This results in an increase in contribution rates, all else being equal.

Section 10: Appendices

Appendix A: Major Provisions of the Present System

Benefit Sections 31676.1, 31676.16, 31497.3, 31664, 31664.1 and 31664.2 of the 1937 County Act

Briefly summarized below are the major provisions of the County Employees Retirement Law of 1937, as amended through June 30, 2002, and as adopted by San Mateo County.

Membership

Employees hired after July 6, 1980, but on or before July 12, 1997 become members under Plan 2. Employees hired after July 13, 1997 become members of Plan 4. General members are given the option to elect non-contributory General Plan 3. General Plan 3 members can elect membership under the open contributory plan after 5 years of service. Members with Plan 3 service who are currently in a contributory plan may purchase an upgrade of their Plan 3 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. Such Probation Officers may purchase an upgrade of their General Plan service.

Final Average Salary

Final average salary (FAS) is defined as the highest 12 consecutive months of compensation earnable for Plan 1 and 2 members. FAS for General Plan 3 and all Plan 4 members are based on the highest three years average monthly salary. The individual years need not be consecutive months.

Return of Contributions

If a member resigns or dies 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.

Appendix A (continued)

The benefit is a percentage of monthly FAS per year of service, depending on age at retirement and is illustrated below for typical ages under both the old and new formulas for Safety and Probation members.

**PERCENTAGE OF FINAL AVERAGE SALARY
(ROUNDED) — OLD FORMULA**

Age	General	Safety and Probation
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%

**PERCENTAGE OF FINAL AVERAGE SALARY
(ROUNDED) – NEW FORMULA**

Age	General	Safety and Probation	Safety and Probation
	Section 31676.16	Section 31664.2	Section 31664.1
50	1.43%	2.29%	3.00%
55	2.00%	3.00%	3.00%
60	2.26%	3.00%	3.00%
62	2.37%	3.00%	3.00%
65 and over	2.43%	3.00%	3.00%

(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.

Age	Percentage*
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:

Appendix A (continued)

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 be 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 and is calculated to incorporate 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.

Appendix A (continued)

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 for General and Safety Plan 1 is 5% per year; for probation Plan 1 and all Plan 2 is 3% per year and for Plan 4 it is 2% per year. Plan 1 has a COLA bank. Plan 3 does not provide any cost-of-living increases. 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 members do not contribute towards the cost of living benefit.

For the new formula, General members will share in 1%, 2% and 3% of the employers' contributions, effective August 30, 2003, August 28, 2004, and March 1, 2005, respectively. Our employer and member contribution rates represent the 1% cost sharing at August 30, 2003. Each additional 1% shared will decrease the employers contribution rate for General members by approximately 0.71%¹. The 0.71% reduction in the employer's contribution rate has already been included in the results.

If a General member retires at age 65 or older during the period that the new formula (Section 31676.16) is in effect, the member will (a) receive a refund of "Sharing Formula contributions" and interest thereon and (b) receive the higher benefit under the old formula.

Safety members will share in 2%, 3% and 5% of the employers' contributions, effective July 1, 2003, January 1, 2004, and January 1, 2005, respectively. Our employer and member contribution rates represent the 2% cost sharing at July 1, 2003 and 3% at January 1, 2004. Each additional 1% shared will

¹ *The reduction in the employer's rate is less than 1 percent because a fraction of the contributions will be refunded to the member either before or at retirement.*

Appendix A (continued)

decrease the employer's contribution rate for Safety members by approximately 0.974%². The 2.434% reduction (weighted average of 2003/2004 fiscal year cost sharing) in the employer's contribution rate has already been included in the results.

Probation members will share in 1.5%, 2.5% and 3.5% of the employers' contributions, effective October 12, 2003, January 1, 2004, and January 1, 2005, respectively. Our employer and member contribution rates represent the 1.5% cost sharing at October 12, 2003 and 2.5% at January 1, 2004. Each additional 1% shared will decrease the employers contribution rate for Safety members by approximately 0.963%³. The 1.503% reduction (weighted average of 2003/2004 fiscal year cost sharing) in the employer's contribution rate has already been included in the results.

The County Contributions are actuarially determined to provide for the balance of the contributions needed to fund the benefits promised under the Retirement System. The employer rates calculated in this report reflect the payment of 15% member contribution rate on a non-refundable basis by the County for the Deputy Sheriffs, Correctional Officers and Sheriff Sergeants. In addition, the County pays 100 percent of management employees' and unrepresented attorneys' contributions and 50 percent of confidential employees' and remaining Sheriff's Sergeants contributions on a refundable basis. However, as instructed by the Association, the employer rates have not been adjusted to reflect the payment of 100% of management employee and unrepresented attorney and 50% of confidential employees and remaining Sheriff's Sergeants contribution rates.

^{2,3} *The reduction in the employer's rate is less than 1 percent because a fraction of the contributions will be refunded to the member either before or at retirement.*

Appendix B: Summary of Assumptions and Funding Method

Assumptions

<i>Valuation Interest Rate</i>	8.25%
<i>Inflation Assumption</i>	4.25%
<i>Interest Rate Credited To Active Member Accounts</i>	8.25%
<i>Post-Retirement Mortality</i>	
<i>(a) Service</i>	
<i>General Males</i>	1994 Group Annuity Mortality Table set back 1 year (Male)
<i>General Females</i>	1994 Group Annuity Mortality Table set back 2 years (Female)
<i>Safety and Probation Members</i>	1994 Group Annuity Mortality Table set forward 1 year (Male)
<i>(b) Beneficiaries</i>	
<i>General Males</i>	1994 Group Annuity Mortality Table set back 1 year (Male)
<i>General Females</i>	1994 Group Annuity Mortality Table set back 2 years (Female)
<i>Safety and Probation Members</i>	1994 Group Annuity Mortality Table set back 2 years (Female)
<i>(c) Disability</i>	
<i>General</i>	1981 General Disability Mortality Table set back 4 years
<i>Safety</i>	1981 Safety Disability Mortality Table set back 2 years
<i>(d) For Employee Contribution</i>	
<i>Rate Purposes</i>	
<i>General</i>	1994 Group Annuity Mortality Table, no setback (Female)
<i>Safety</i>	1994 Group Annuity Mortality Table set forward 1 year (Male)
<i>Pre-Retirement Mortality</i>	Based upon the Experience Analysis as of 06/30/2002
<i>Withdrawal Rates</i>	Based upon the Experience Analysis as of 06/30/2002
<i>Disability Rates</i>	Based upon the Experience Analysis as of 06/30/2002
<i>Service Retirement Rates</i>	Based upon the Experience Analysis as of 06/30/2002
<i>Salary Scale</i>	Total increases of 6.25% per year reflecting approximately 4.25% for inflation and approximately 2.00% for merit and longevity
<i>Value of Assets for Contribution Purposes</i>	Actuarial Value as described in Actuarial Valuation Methods Section
<i>Percentage of Members Married at Retirement</i>	85% for General male, Safety and Probation members. 55% for General female members
<i>Members Eligible for Reciprocal Benefits</i>	50%
<i>Additional Employer Normal Cost for General Plan 3</i>	An additional cost equal to 2% of payroll was added to the Normal Cost for General Plan 3 to anticipate the future increase in cost from those members expected to transfer to General Plan 2.

Appendix B *(continued)*

Funding Method

The County's liability is being funded on the Entry Age Normal Method with an Unfunded Actuarial Accrued Liability (UAAL). The Board changed the current amortization period for the UAAL to 20 years from the valuation date, effective June 30, 2002.

The UAAL rates for June 30, 2002 were calculated by taking the UAAL rates calculated last year for the ten plans and adjusting them proportionally by the change in actuarial experience during the 2001/2002 plan year.

In other words, the plan with the larger UAAL rate last year was allocated a larger absolute reduction to the UAAL rate this year. Under this approach, if SamCERA experiences actuarial losses in the future, the plan with the larger UAAL rate will also be allocated with a larger absolute increase to fund for the new UAAL.

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 20 years equals the difference between last year's rate and the new normal cost.

As instructed by the Board, we have included the 1% minimum statutory Contingency Reserve in determining the employer rates in this valuation. Please note that this will cause the employer rate to decrease but the Reserve may no longer be applied again to provide rate reduction in the future.

Appendix B (continued)

Exhibit I

PROBABILITIES OF SEPARATION PRIOR TO RETIREMENT General Male Members – Plan 1

Age	With(0<Svc<1)	With(1<Svc<2)	With(2<Svc<3)	With(3<Svc<4)	With(4<Svc<5)	With(Svc>5)	Vested Term	Ord. Disab	Duty Disab	Ord. Dth	Duty Dth	Svc Ret Old Formula	Svc Ret New Formula
<= 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	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	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	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	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	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	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	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	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	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	0.0000
30	0.1170	0.1170	0.1170	0.1170	0.1170	0.1170	0.0098	0.0002	0.0002	0.0003	0.0001	0.0000	0.0000
31	0.1120	0.1120	0.1120	0.1120	0.1120	0.1120	0.0103	0.0002	0.0002	0.0004	0.0001	0.0000	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	0.0000
33	0.0960	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	0.0860	0.0123	0.0005	0.0003	0.0005	0.0001	0.0000	0.0000
35	0.0760	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	0.0650	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	0.0550	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	0.0460	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	0.0380	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	0.0300	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	0.0240	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	0.0200	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	0.0180	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	0.0160	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	0.0140	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	0.0120	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	0.0100	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	0.0090	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	0.0080	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	0.0070	0.0026	0.0000	0.0026	0.0013	0.0022	0.0002	0.0300
51	0.0060	0.0060	0.0060	0.0060	0.0060	0.0060	0.0021	0.0000	0.0028	0.0013	0.0024	0.0002	0.0300
52	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050	0.0017	0.0000	0.0030	0.0013	0.0026	0.0003	0.0300
53	0.0040	0.0040	0.0040	0.0040	0.0040	0.0040	0.0013	0.0000	0.0031	0.0013	0.0028	0.0003	0.0300
54	0.0040	0.0040	0.0040	0.0040	0.0040	0.0040	0.0012	0.0000	0.0033	0.0013	0.0030	0.0003	0.0300
55	0.0030	0.0030	0.0030	0.0030	0.0030	0.0030	0.0029	0.0000	0.0035	0.0014	0.0032	0.0003	0.0340
56	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0019	0.0000	0.0036	0.0015	0.0034	0.0003	0.0446
57	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0018	0.0000	0.0038	0.0016	0.0036	0.0004	0.0562
58	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0013	0.0000	0.0040	0.0019	0.0038	0.0004	0.0663
59	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0017	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	0.0000	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	0.0000	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	0.0000	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	0.0000	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	0.0000	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	0.0000	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	0.0000	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	0.0000	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	0.0000	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	0.0000	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	1.0000

Appendix B (continued)

Exhibit I

PROBABILITIES OF SEPARATION PRIOR TO RETIREMENT
General Female Members – Plan 1

Age	With(0<Svc<1)	With(1<Svc<2)	With(2<Svc<3)	With(3<Svc<4)	With(4<Svc<5)	With(Svc>5)	Vested Term	Ord. Disab	Duty Disab	Ord. Dth	Duty Dth	Svc Ret	Svc Ret
												Old Formula	New Formula
<= 20	0.1540	0.1540	0.1540	0.1540	0.1540	0.1540	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000	0.0000
21	0.1471	0.1471	0.1471	0.1471	0.1471	0.1471	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000	0.0000
22	0.1401	0.1401	0.1401	0.1401	0.1401	0.1401	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000	0.0000
23	0.1332	0.1332	0.1332	0.1332	0.1332	0.1332	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000	0.0000
24	0.1263	0.1263	0.1263	0.1263	0.1263	0.1263	0.0000	0.0000	0.0000	0.0003	0.0000	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	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	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	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	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	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	0.0000
31	0.0762	0.0762	0.0762	0.0762	0.0762	0.0762	0.0094	0.0002	0.0002	0.0004	0.0000	0.0000	0.0000
32	0.0676	0.0676	0.0676	0.0676	0.0676	0.0676	0.0113	0.0001	0.0002	0.0004	0.0000	0.0000	0.0000
33	0.0591	0.0591	0.0591	0.0591	0.0591	0.0591	0.0132	0.0001	0.0003	0.0004	0.0000	0.0000	0.0000
34	0.0520	0.0520	0.0520	0.0520	0.0520	0.0520	0.0151	0.0003	0.0003	0.0004	0.0000	0.0000	0.0000
35	0.0461	0.0461	0.0461	0.0461	0.0461	0.0461	0.0180	0.0004	0.0003	0.0005	0.0000	0.0000	0.0000
36	0.0402	0.0402	0.0402	0.0402	0.0402	0.0402	0.0200	0.0004	0.0004	0.0005	0.0000	0.0000	0.0000
37	0.0344	0.0344	0.0344	0.0344	0.0344	0.0344	0.0268	0.0005	0.0005	0.0005	0.0000	0.0000	0.0000
38	0.0285	0.0285	0.0285	0.0285	0.0285	0.0285	0.0202	0.0006	0.0006	0.0006	0.0000	0.0000	0.0000
39	0.0227	0.0227	0.0227	0.0227	0.0227	0.0227	0.0145	0.0006	0.0007	0.0006	0.0000	0.0000	0.0000
40	0.0168	0.0168	0.0168	0.0168	0.0168	0.0168	0.0188	0.0006	0.0008	0.0006	0.0000	0.0000	0.0000
41	0.0157	0.0157	0.0157	0.0157	0.0157	0.0157	0.0079	0.0172	0.0006	0.0009	0.0007	0.0000	0.0000
42	0.0145	0.0145	0.0145	0.0145	0.0145	0.0145	0.0063	0.0156	0.0007	0.0010	0.0008	0.0000	0.0000
43	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0067	0.0144	0.0010	0.0010	0.0008	0.0000	0.0000
44	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0071	0.0132	0.0014	0.0011	0.0009	0.0000	0.0000
45	0.0126	0.0126	0.0126	0.0126	0.0126	0.0126	0.0073	0.0119	0.0022	0.0012	0.0009	0.0000	0.0000
46	0.0118	0.0118	0.0118	0.0118	0.0118	0.0118	0.0075	0.0107	0.0030	0.0012	0.0010	0.0000	0.0000
47	0.0107	0.0107	0.0107	0.0107	0.0107	0.0107	0.0073	0.0094	0.0039	0.0013	0.0010	0.0000	0.0000
48	0.0099	0.0099	0.0099	0.0099	0.0099	0.0099	0.0075	0.0089	0.0037	0.0013	0.0011	0.0000	0.0000
49	0.0092	0.0092	0.0092	0.0092	0.0092	0.0092	0.0076	0.0080	0.0034	0.0013	0.0012	0.0000	0.0000
50	0.0084	0.0084	0.0084	0.0084	0.0084	0.0084	0.0000	0.0079	0.0030	0.0020	0.0013	0.0000	0.0400
51	0.0076	0.0076	0.0076	0.0076	0.0076	0.0076	0.0000	0.0076	0.0030	0.0020	0.0014	0.0000	0.0400
52	0.0069	0.0069	0.0069	0.0069	0.0069	0.0069	0.0000	0.0075	0.0030	0.0020	0.0015	0.0000	0.0400
53	0.0061	0.0061	0.0061	0.0061	0.0061	0.0061	0.0000	0.0074	0.0030	0.0020	0.0017	0.0000	0.0400
54	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054	0.0000	0.0072	0.0030	0.0020	0.0019	0.0000	0.0400
55	0.0046	0.0046	0.0046	0.0046	0.0046	0.0046	0.0000	0.0071	0.0020	0.0042	0.0021	0.0000	0.0450
56	0.0038	0.0038	0.0038	0.0038	0.0038	0.0038	0.0000	0.0068	0.0025	0.0045	0.0022	0.0000	0.0500
57	0.0031	0.0031	0.0031	0.0031	0.0031	0.0031	0.0000	0.0061	0.0020	0.0048	0.0025	0.0000	0.0600
58	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0000	0.0054	0.0020	0.0056	0.0028	0.0000	0.0700
59	0.0019	0.0019	0.0019	0.0019	0.0019	0.0019	0.0000	0.0047	0.0018	0.0065	0.0031	0.0000	0.0800
60	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0032	0.0019	0.0065	0.0036	0.0000	0.0804
61	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0026	0.0020	0.0065	0.0042	0.0000	0.0892
62	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0021	0.0021	0.0065	0.0048	0.0000	0.2449
63	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0016	0.0025	0.0065	0.0055	0.0000	0.2266
64	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0011	0.0029	0.0065	0.0063	0.0000	0.2083
65	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0072	0.0000	0.3505
66	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0082	0.0000	0.2641
67	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0093	0.0000	0.2832
68	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0104	0.0000	0.4484
69	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0116	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	1.0000

Appendix B (continued)

Exhibit I

PROBABILITIES OF SEPARATION PRIOR TO RETIREMENT
General Plans 2 and 4 Male Members

Table with columns: Age, With(0<Svc<1), With(1<Svc<2), With(2<Svc<3), With(3<Svc<4), With(4<Svc<5), With(Svc>5), Vested Term, Ord. Disab, Duty Disab, Ord. Dth, Duty Dth, Svc Ret Old Formula, Svc Ret New Formula. Rows range from Age <= 20 to 70.

Appendix B (continued)

Exhibit I

PROBABILITIES OF SEPARATION PRIOR TO RETIREMENT
General Female Members – Plans 2 & 4

Age	With(0<Svc<1)	With(1<Svc<2)	With(2<Svc<3)	With(3<Svc<4)	With(4<Svc<5)	With(Svc>5)	Vested Term	Ord. Disab	Duty Disab	Ord. Dth	Duty Dth	Svc Ret Old Formula	Svc Ret New Formula
<= 20	0.1300	0.1097	0.0882	0.0700	0.0400	0.0400	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000	0.0000
21	0.1300	0.1097	0.0882	0.0700	0.0400	0.0400	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000	0.0000
22	0.1300	0.1097	0.0882	0.0700	0.0400	0.0400	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000	0.0000
23	0.1300	0.1097	0.0882	0.0700	0.0400	0.0400	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000	0.0000
24	0.1300	0.1097	0.0882	0.0700	0.0400	0.0400	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000	0.0000
25	0.1300	0.1097	0.0882	0.0700	0.0400	0.0400	0.0128	0.0001	0.0000	0.0003	0.0000	0.0000	0.0000
26	0.1300	0.1097	0.0882	0.0700	0.0400	0.0400	0.0128	0.0001	0.0000	0.0003	0.0000	0.0000	0.0000
27	0.1300	0.1097	0.0882	0.0700	0.0400	0.0400	0.0135	0.0002	0.0001	0.0003	0.0000	0.0000	0.0000
28	0.1300	0.1097	0.0882	0.0700	0.0400	0.0400	0.0135	0.0002	0.0001	0.0003	0.0000	0.0000	0.0000
29	0.1300	0.1097	0.0882	0.0700	0.0400	0.0400	0.0143	0.0003	0.0001	0.0003	0.0000	0.0000	0.0000
30	0.1300	0.1097	0.0882	0.0700	0.0400	0.0349	0.0188	0.0003	0.0001	0.0003	0.0000	0.0000	0.0000
31	0.1300	0.1097	0.0882	0.0700	0.0400	0.0349	0.0225	0.0003	0.0001	0.0004	0.0000	0.0000	0.0000
32	0.1300	0.1097	0.0882	0.0700	0.0400	0.0349	0.0240	0.0003	0.0001	0.0004	0.0000	0.0000	0.0000
33	0.1300	0.1097	0.0882	0.0700	0.0400	0.0349	0.0255	0.0007	0.0003	0.0004	0.0000	0.0000	0.0000
34	0.1300	0.1097	0.0882	0.0700	0.0400	0.0349	0.0263	0.0010	0.0006	0.0004	0.0000	0.0000	0.0000
35	0.1300	0.1097	0.0882	0.0700	0.0400	0.0240	0.0300	0.0016	0.0010	0.0005	0.0000	0.0000	0.0000
36	0.1300	0.1097	0.0882	0.0700	0.0400	0.0240	0.0300	0.0020	0.0012	0.0005	0.0000	0.0000	0.0000
37	0.1300	0.1097	0.0882	0.0700	0.0400	0.0240	0.0300	0.0028	0.0015	0.0005	0.0000	0.0000	0.0000
38	0.1300	0.1097	0.0882	0.0700	0.0400	0.0240	0.0263	0.0029	0.0018	0.0006	0.0000	0.0000	0.0000
39	0.1300	0.1097	0.0882	0.0700	0.0400	0.0240	0.0225	0.0030	0.0020	0.0006	0.0000	0.0000	0.0000
40	0.1300	0.1097	0.0882	0.0700	0.0400	0.0240	0.0225	0.0030	0.0020	0.0006	0.0000	0.0000	0.0000
41	0.1300	0.1097	0.0882	0.0700	0.0400	0.0240	0.0225	0.0030	0.0020	0.0007	0.0000	0.0000	0.0000
42	0.1300	0.1097	0.0882	0.0700	0.0400	0.0240	0.0225	0.0030	0.0020	0.0008	0.0000	0.0000	0.0000
43	0.1300	0.1097	0.0882	0.0700	0.0400	0.0240	0.0225	0.0030	0.0020	0.0008	0.0000	0.0000	0.0000
44	0.1300	0.1097	0.0882	0.0700	0.0400	0.0240	0.0225	0.0030	0.0020	0.0009	0.0000	0.0000	0.0000
45	0.1300	0.1097	0.0882	0.0700	0.0400	0.0227	0.0210	0.0030	0.0022	0.0009	0.0000	0.0000	0.0000
46	0.1300	0.1097	0.0882	0.0700	0.0400	0.0211	0.0200	0.0036	0.0024	0.0010	0.0000	0.0000	0.0000
47	0.1300	0.1097	0.0882	0.0700	0.0400	0.0195	0.0190	0.0036	0.0026	0.0010	0.0000	0.0000	0.0000
48	0.1300	0.1097	0.0882	0.0700	0.0400	0.0180	0.0180	0.0036	0.0028	0.0011	0.0000	0.0000	0.0000
49	0.1300	0.1097	0.0882	0.0700	0.0400	0.0166	0.0170	0.0036	0.0030	0.0012	0.0000	0.0000	0.0000
50	0.1300	0.1097	0.0882	0.0700	0.0400	0.0000	0.0160	0.0036	0.0031	0.0013	0.0000	0.0400	0.0400
51	0.1300	0.1097	0.0882	0.0700	0.0400	0.0000	0.0150	0.0036	0.0032	0.0014	0.0000	0.0350	0.0350
52	0.1300	0.1097	0.0882	0.0700	0.0400	0.0000	0.0140	0.0036	0.0033	0.0015	0.0000	0.0300	0.0300
53	0.1300	0.1097	0.0882	0.0700	0.0400	0.0000	0.0130	0.0036	0.0034	0.0017	0.0000	0.0300	0.0300
54	0.1300	0.1097	0.0882	0.0700	0.0400	0.0000	0.0125	0.0036	0.0035	0.0019	0.0000	0.0300	0.0300
55	0.1300	0.1097	0.0882	0.0700	0.0400	0.0000	0.0120	0.0036	0.0036	0.0021	0.0000	0.0400	0.0400
56	0.1300	0.1097	0.0882	0.0700	0.0400	0.0000	0.0110	0.0036	0.0037	0.0022	0.0000	0.0500	0.0694
57	0.1300	0.1097	0.0882	0.0700	0.0400	0.0000	0.0100	0.0036	0.0038	0.0025	0.0000	0.0600	0.0750
58	0.1300	0.1097	0.0882	0.0700	0.0400	0.0000	0.0050	0.0036	0.0039	0.0028	0.0000	0.0700	0.0800
59	0.1300	0.1097	0.0882	0.0700	0.0400	0.0000	0.0025	0.0036	0.0040	0.0031	0.0000	0.0800	0.0850
60	0.1300	0.1097	0.0882	0.0700	0.0400	0.0000	0.0000	0.0036	0.0056	0.0036	0.0000	0.0800	0.1219
61	0.1300	0.1097	0.0882	0.0700	0.0400	0.0000	0.0000	0.0036	0.0071	0.0042	0.0000	0.0800	0.1655
62	0.1300	0.1097	0.0882	0.0700	0.0400	0.0000	0.0000	0.0036	0.0085	0.0048	0.0000	0.1600	0.2000
63	0.1300	0.1097	0.0882	0.0700	0.0400	0.0000	0.0000	0.0036	0.0097	0.0055	0.0000	0.1400	0.2000
64	0.1300	0.1097	0.0882	0.0700	0.0400	0.0000	0.0000	0.0036	0.0107	0.0063	0.0000	0.1400	0.2000
65	0.1300	0.1097	0.0882	0.0700	0.0400	0.0000	0.0000	0.0000	0.0000	0.0072	0.0000	0.3000	0.3000
66	0.1300	0.1097	0.0882	0.0700	0.0400	0.0000	0.0000	0.0000	0.0000	0.0082	0.0000	0.2000	0.2000
67	0.1300	0.1097	0.0882	0.0700	0.0400	0.0000	0.0000	0.0000	0.0000	0.0093	0.0000	0.2500	0.2500
68	0.1300	0.1097	0.0882	0.0700	0.0400	0.0000	0.0000	0.0000	0.0000	0.0104	0.0000	0.2200	0.2200
69	0.1300	0.1097	0.0882	0.0700	0.0400	0.0000	0.0000	0.0000	0.0000	0.0116	0.0000	0.3000	0.3000
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	1.0000

Appendix B (continued)

Exhibit I

**PROBABILITIES OF SEPARATION PRIOR TO RETIREMENT
General Male Members – Plan 3**

Age	With(0<Svc<1)	With(1<Svc<2)	With(2<Svc<3)	With(3<Svc<4)	With(4<Svc<5)	With(Svc>5)	Vested Term	Ord. Disab	Duty Disab	Ord. Dth	Duty Dth	Svc Ret
<= 20	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0000	0.0000	0.0000	0.0002	0.0001	0.0000
21	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0000	0.0000	0.0000	0.0002	0.0001	0.0000
22	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0000	0.0000	0.0000	0.0002	0.0001	0.0000
23	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0000	0.0000	0.0000	0.0002	0.0001	0.0000
24	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0000	0.0000	0.0000	0.0002	0.0001	0.0000
25	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0085	0.0002	0.0000	0.0003	0.0001	0.0000
26	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0085	0.0002	0.0000	0.0003	0.0001	0.0000
27	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0090	0.0002	0.0000	0.0003	0.0001	0.0000
28	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0090	0.0002	0.0000	0.0003	0.0001	0.0000
29	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0095	0.0002	0.0000	0.0003	0.0001	0.0000
30	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0100	0.0002	0.0000	0.0003	0.0001	0.0000
31	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0105	0.0002	0.0000	0.0004	0.0001	0.0000
32	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0110	0.0002	0.0000	0.0004	0.0001	0.0000
33	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0115	0.0002	0.0000	0.0005	0.0001	0.0000
34	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0125	0.0002	0.0000	0.0005	0.0001	0.0000
35	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0135	0.0003	0.0001	0.0005	0.0001	0.0000
36	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0160	0.0004	0.0001	0.0006	0.0001	0.0000
37	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0180	0.0004	0.0001	0.0006	0.0001	0.0000
38	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0195	0.0005	0.0001	0.0006	0.0001	0.0000
39	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0205	0.0005	0.0001	0.0006	0.0001	0.0000
40	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0210	0.0006	0.0001	0.0006	0.0001	0.0000
41	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0215	0.0006	0.0001	0.0007	0.0001	0.0000
42	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0215	0.0007	0.0001	0.0008	0.0001	0.0000
43	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0220	0.0008	0.0001	0.0009	0.0001	0.0000
44	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0230	0.0009	0.0001	0.0010	0.0002	0.0000
45	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0240	0.0010	0.0002	0.0012	0.0002	0.0000
46	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0250	0.0011	0.0002	0.0014	0.0002	0.0000
47	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0260	0.0012	0.0002	0.0016	0.0002	0.0000
48	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	0.0250	0.0014	0.0002	0.0018	0.0002	0.0000
49	0.3000	0.1387	0.1387	0.1387	0.0600	0.0000	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	0.1387	0.1387	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	0.1387	0.1387	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.

Appendix B (continued)

Exhibit I

**PROBABILITIES OF SEPARATION PRIOR TO RETIREMENT
General Female Members – Plan 3**

Age	With(0<Svc<1)	With(1<Svc<2)	With(2<Svc<3)	With(3<Svc<4)	With(4<Svc<5)	With(Svc>5)	Vested Term	Ord. Disab	Duty Disab	Ord. Dth	Duty Dth	Svc Ret
<= 20	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000
21	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000
22	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000
23	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000
24	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000
25	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000
26	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000
27	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000
28	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000
29	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000
30	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0400	0.0001	0.0000	0.0003	0.0000	0.0000
31	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0400	0.0001	0.0000	0.0004	0.0000	0.0000
32	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0400	0.0001	0.0000	0.0004	0.0000	0.0000
33	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0400	0.0001	0.0000	0.0004	0.0000	0.0000
34	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0400	0.0001	0.0000	0.0004	0.0000	0.0000
35	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0400	0.0002	0.0001	0.0005	0.0000	0.0000
36	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0400	0.0002	0.0001	0.0005	0.0000	0.0000
37	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0400	0.0002	0.0001	0.0005	0.0000	0.0000
38	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0400	0.0002	0.0001	0.0006	0.0000	0.0000
39	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0400	0.0002	0.0001	0.0006	0.0000	0.0000
40	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0300	0.0002	0.0001	0.0006	0.0000	0.0000
41	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0280	0.0002	0.0001	0.0007	0.0000	0.0000
42	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0240	0.0003	0.0001	0.0008	0.0000	0.0000
43	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0200	0.0004	0.0001	0.0008	0.0000	0.0000
44	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0180	0.0005	0.0001	0.0009	0.0000	0.0000
45	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0175	0.0006	0.0002	0.0009	0.0000	0.0000
46	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0170	0.0006	0.0002	0.0010	0.0000	0.0000
47	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0165	0.0008	0.0002	0.0010	0.0000	0.0000
48	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0155	0.0008	0.0002	0.0011	0.0000	0.0000
49	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0140	0.0009	0.0002	0.0012	0.0000	0.0000
50	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0130	0.0010	0.0003	0.0013	0.0000	0.0000
51	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0125	0.0011	0.0003	0.0014	0.0000	0.0000
52	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0120	0.0012	0.0004	0.0015	0.0000	0.0000
53	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0115	0.0014	0.0004	0.0017	0.0000	0.0000
54	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0110	0.0017	0.0005	0.0019	0.0000	0.0000
55	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0105	0.0018	0.0005	0.0021	0.0000	0.0229
56	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0100	0.0021	0.0006	0.0022	0.0000	0.0204
57	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0090	0.0022	0.0006	0.0025	0.0000	0.0137
58	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0080	0.0023	0.0006	0.0028	0.0000	0.0166
59	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0070	0.0025	0.0007	0.0031	0.0000	0.0225
60	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0060	0.0027	0.0008	0.0036	0.0000	0.0317
61	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0050	0.0028	0.0008	0.0042	0.0000	0.0350
62	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0040	0.0029	0.0008	0.0048	0.0000	0.0957
63	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0030	0.0031	0.0009	0.0055	0.0000	0.0886
64	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0020	0.0033	0.0009	0.0063	0.0000	0.2000
65	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0000	0.0000	0.0000	0.0072	0.0000	0.2500
66	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0000	0.0000	0.0000	0.0082	0.0000	0.1158
67	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0000	0.0000	0.0000	0.0093	0.0000	0.1244
68	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0000	0.0000	0.0000	0.0104	0.0000	0.4540
69	0.2000	0.2000	0.1000	0.1000	0.0800	0.0000	0.0000	0.0000	0.0000	0.0116	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.

Appendix B (continued)

PROBABILITIES OF SEPARATION PRIOR TO RETIREMENT
Safety and Probation Members

Table with columns: Age, With (0<Svc<1), With (1<Svc<2), With (2<Svc<3), With (3<Svc<4), With (4<Svc<5), With (Svc>5), Vested Term, Ord. Disab, Duty Disab, Ord. Dth, Duty Dth, Svc Ret Current, Svc Ret 31664.2, Svc Ret 31664.1. Rows range from Age <= 20 to 70.

Appendix B (continued)

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

Appendix B (continued)

Exhibit III

YEARS OF LIFE EXPECTANCY AFTER SERVICE RETIREMENT

General				General			
Age	Male	Female	Safety	Age	Male	Female	Safety
50	30.94	36.14	29.09	81	7.97	10.49	7.07
51	30.01	35.19	28.18	82	7.51	9.88	6.65
52	29.09	34.24	27.28	83	7.07	9.30	6.24
53	28.18	33.29	26.38	84	6.65	8.74	5.86
54	27.28	32.34	25.49	85	6.24	8.20	5.48
55	26.38	31.4	24.61	86	5.86	7.68	5.12
56	25.49	30.47	23.74	87	5.48	7.18	4.78
57	24.61	29.53	22.88	88	5.12	6.71	4.45
58	23.74	28.6	22.04	89	4.78	6.25	4.15
59	22.88	27.68	21.20	90	4.45	5.83	3.87
60	22.04	26.77	20.38	91	4.15	5.42	3.61
61	21.2	25.86	19.57	92	3.87	5.05	3.37
62	20.38	24.97	18.78	93	3.61	4.70	3.15
63	19.57	24.09	18.01	94	3.37	4.37	2.95
64	18.78	23.22	17.26	95	3.15	4.07	2.77
65	18.01	22.36	16.53	96	2.95	3.79	2.61
66	17.26	21.52	15.81	97	2.77	3.53	2.46
67	16.53	20.69	15.11	98	2.61	3.28	2.33
68	15.81	19.88	14.43	99	2.46	3.06	2.21
69	15.11	19.09	13.77	100	2.33	2.85	2.09
70	14.43	18.3	13.11	101	2.21	2.65	1.98
71	13.77	17.53	12.48	102	2.09	2.48	1.87
72	13.11	16.77	11.85	103	1.98	2.31	1.77
73	12.48	16.01	11.25	104	1.87	2.16	1.68
74	11.85	15.26	10.66	105	1.77	2.02	1.62
75	11.25	14.53	10.08	106	1.68	1.89	1.57
76	10.66	13.81	9.52	107	1.62	1.78	1.53
77	10.08	13.11	8.98	108	1.57	1.69	1.51
78	9.52	12.43	8.46	109	1.53	1.62	1.49
79	8.98	11.76	7.97	110	1.51	1.57	1.47
80	8.46	11.11	7.51				

General Male Members - 1994 GAM Male Set Back 1 Year
 Female Members - 1994 GAM Female Set Back 2 Years

Safety All Members - 1994 GAM Male Set Forward 1 Year

Appendix B (continued)

Exhibit III

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

Age	Male & Female	Age	Male & Female	Age	Male & Female
20	40.93	50	22.56	80	8.28
21	40.06	51	22.06	81	7.83
22	39.17	52	21.57	82	7.41
23	38.27	53	21.08	83	7.00
24	37.60	54	20.59	84	6.63
25	36.95	55	20.11	85	6.27
26	36.31	56	19.63	86	5.94
27	35.67	57	19.16	87	5.63
28	35.04	58	18.68	88	5.34
29	34.41	59	18.21	89	5.06
30	33.78	60	17.75	90	4.80
31	33.16	61	17.29	91	4.55
32	32.55	62	16.83	92	4.31
33	31.94	63	16.37	93	4.09
34	31.34	64	15.91	94	3.87
35	30.75	65	15.45	95	3.66
36	30.16	66	14.99	96	3.46
37	29.57	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	1.04



General

All Members - 1981 General Disability Set Back 4 Years

Appendix B (continued)

Exhibit III

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

Age	Male & Female	Age	Male & Female	Age	Male & Female
20	50.22	50	25.18	80	7.83
21	49.4	51	24.38	81	7.41
22	48.56	52	23.59	82	7.00
23	47.79	53	22.80	83	6.63
24	47	54	22.03	84	6.27
25	46.19	55	21.26	85	5.94
26	45.38	56	20.50	86	5.63
27	44.55	57	19.77	87	5.34
28	43.71	58	19.06	88	5.06
29	42.87	59	18.40	89	4.80
30	42.02	60	17.78	90	4.55
31	41.16	61	17.20	91	4.31
32	40.31	62	16.64	92	4.09
33	39.45	63	16.11	93	3.87
34	38.59	64	15.59	94	3.66
35	37.73	65	15.08	95	3.46
36	36.87	66	14.58	96	3.26
37	36.01	67	14.09	97	3.07
38	35.16	68	13.61	98	2.89
39	34.3	69	13.13	99	2.71
40	33.45	70	12.66	100	2.54
41	32.61	71	12.18	101	2.37
42	31.77	72	11.70	102	2.20
43	30.93	73	11.21	103	2.04
44	30.09	74	10.72	104	1.88
45	29.26	75	10.22	105	1.72
46	28.43	76	9.73	106	1.55
47	27.61	77	9.24	107	1.38
48	26.8	78	8.76	108	1.21
49	25.98	79	8.28	109	1.04
				110	0.88

Safety

All Members - 1981 Safety Disability Set Back 2 Years

Appendix C – Member Statistics

ASSOCIATION MEMBERSHIP AND BENEFIT STATISTICS

Summary of Active Membership

Active General Members			
	<u>June 30, 2002</u>	<u>June 30, 2001</u>	<u>Percent Change</u>
General Plan 1			
A. Number	378	395	-4.3%
B. Average Age	55.51	54.84	1.2%
C. Average Years of Service	26.58	26.15	1.6%
D. Annual Salary			
i. Total	\$ 26,334,000	\$ 25,959,000	1.4%
ii. Average Monthly Salary	\$ 5,806	\$ 5,477	6.0%
General Plan 2			
A. Number	1,885	2,017	-6.5%
B. Average Age	46.95	46.03	2.0%
C. Average Years of Service	10.41	11.26	-7.5%
D. Annual Salary			
i. Total	\$ 120,136,000	\$ 119,419,000	0.6%
ii. Average Monthly Salary	\$ 5,311	\$ 4,934	7.6%
General Plan 3			
A. Number	200	213	-6.1%
B. Average Age	41.97	42.25	-0.7%
C. Average Years of Service	8.13	9.09	-10.6%
D. Annual Salary			
i. Total	\$ 11,368,000	\$ 11,543,000	-1.5%
ii. Average Monthly Salary	\$ 4,737	\$ 4,516	4.9%
General Plan 4			
A. Number	1,696	1,415	19.9%
B. Average Age	38.13	37.90	0.6%
C. Average Years of Service	1.51	1.10	37.3%
D. Annual Salary			
i. Total	\$ 92,506,000	\$ 70,927,000	30.4%
ii. Average Monthly Salary	\$ 4,545	\$ 4,177	8.8%
General Total			
A. Number	4,159	4,040	2.9%
B. Average Age	43.89	43.84	0.1%
C. Average Years of Service	8.14	9.04	-10.0%
D. Annual Salary			
i. Total	\$ 250,344,000	\$ 227,848,000	9.9%
ii. Average Monthly Salary	\$ 5,016	\$ 4,700	6.7%

For purposes of Appendix C, Service is calculated based on date of membership in the current plan of employment. Service was calculated last year as total service in the association.

Appendix C (continued)

ASSOCIATION MEMBERSHIP AND BENEFIT STATISTICS

Active Safety Members		<u>June 30, 2002</u>	<u>June 30, 2001</u>	<u>Percent Change</u>
Safety Plan 1				
A.	Number	70	79	-11.4%
B.	Average Age	52.74	52.33	0.8%
C.	Average Years of Service	26.17	25.61	2.2%
D.	Annual Salary			
	i. Total	\$ 6,569,000	\$ 6,946,000	-5.4%
	ii. Average Monthly Salary	\$ 7,820	\$ 6,917	6.7%
Safety Plan 2				
A.	Number	216	221	-2.3%
B.	Average Age	42.43	41.67	1.8%
C.	Average Years of Service	12.19	11.85	2.9%
D.	Annual Salary			
	i. Total	\$ 17,764,000	\$ 17,183,000	3.4%
	ii. Average Monthly Salary	\$ 6,853	\$ 6,479	5.8%
Safety Plan 4				
A.	Number	145	116	25.0%
B.	Average Age	34.19	32.85	4.1%
C.	Average Years of Service	1.88	1.60	17.5%
D.	Annual Salary			
	i. Total	\$ 10,072,000	\$ 7,482,000	34.6%
	ii. Average Monthly Salary	\$ 5,789	\$ 5,375	7.7%
Safety Total				
A.	Number	431	416	3.6%
B.	Average Age	41.33	41.23	0.2%
C.	Average Years of Service	10.99	11.60	-5.3%
D.	Annual Salary			
	i. Total	\$ 34,405,000	\$ 31,611,000	8.8%
	ii. Average Monthly Salary	\$ 6,652	\$ 6,332	5.1%

For purposes of Appendix C, Service is calculated based on date of membership in the current plan of employment. Service was calculated last year as total service in the association.

Appendix C (continued)

ASSOCIATION MEMBERSHIP AND BENEFIT STATISTICS

Active Probation Members

	<u>June 30, 2002</u>	<u>June 30, 2001</u>	<u>Percent Change</u>
Probation Plan 1			
A. Number	29	36	-19.4%
B. Average Age	53.38	53.64	-0.5%
C. Average Years of Service	11.14	24.11	-53.8%
D. Annual Salary			
i. Total	\$ 2,176,000	\$ 2,532,000	-14.1%
ii. Average Monthly Salary	\$ 6,253	\$ 5,851	6.7%
Probation Plan 2			
A. Number	104	107	-2.8%
B. Average Age	40.32	39.56	1.9%
C. Average Years of Service	8.82	10.50	-16.0%
D. Annual Salary			
i. Total	\$ 6,916,000	\$ 6,522,000	6.0%
ii. Average Monthly Salary	\$ 5,542	\$ 5,079	9.1%
Probation Plan 4			
A. Number	149	118	26.3%
B. Average Age	32.97	31.67	4.1%
C. Average Years of Service	1.59	1.36	16.9%
D. Annual Salary			
i. Total	\$ 8,050,000	\$ 5,805,000	38.7%
ii. Average Monthly Salary	\$ 4,502	\$ 4,100	9.8%
Probation Total			
A. Number	282	261	8.0%
B. Average Age	37.78	37.93	-0.4%
C. Average Years of Service	5.24	8.24	-36.5%
D. Annual Salary			
i. Total	\$ 17,142,000	\$ 14,859,000	15.4%
ii. Average Monthly Salary	\$ 5,066	\$ 4,744	6.8%
Total			
Number	4,872	4,717	3.3%
Annual Payroll	\$ 301,891,000	\$ 274,318,000	10.1%
Average Monthly Salary	\$ 5,164	\$ 4,846	6.6%

For purposes of Appendix C, Service is calculated based on date of membership in the current plan of employment. Service was calculated last year as total service in the association.

Appendix C (continued)

RETIRED AND INACTIVE VESTED MEMBERS

	<u>June 30, 2002</u>	<u>June 30, 2001</u>	<u>Percent Change</u>
Retired Members			
A. Service Retirement			
i. Number	2,638	2,611	1.0%
ii. Annual Allowance			
Basic Only	\$ 36,260,000	\$ 34,500,000	5.1%
COLA	\$ 16,668,000	\$ 15,165,000	9.9%
Total	\$ 52,928,000	\$ 49,665,000	6.6%
Average Monthly Amount	\$ 1,672	\$ 1,585	5.5%
B. Disability Retirement			
i. Number	316	300	5.3%
ii. Annual Allowance			
Basic Only	\$ 5,061,000	\$ 4,597,000	10.1%
COLA	\$ 2,049,000	\$ 1,808,000	13.3%
Total	\$ 7,110,000	\$ 6,405,000	11.0%
Average Monthly Amount	\$ 1,875	\$ 1,779	5.4%
C. Beneficiaries			
i. Number	477	459	3.9%
ii. Annual Allowance			
Basic Only	\$ 3,548,000	\$ 3,213,000	10.4%
COLA	\$ 3,388,000	\$ 3,133,000	8.1%
Total	\$ 6,936,000	\$ 6,346,000	9.3%
Average Monthly Amount	\$ 1,212	\$ 1,152	5.2%
Total			
i. Number	3,431	3,370	1.8%
ii. Annual Allowance			
Basic Only	\$ 44,869,000	\$ 42,310,000	6.0%
COLA	\$ 22,105,000	\$ 20,106,000	9.9%
Total	\$ 66,974,000	\$ 62,416,000	7.3%
Average Monthly Amount	\$ 1,627	\$ 1,543	5.4%
Inactive Vested Members			
A. Number	833	747	11.5%

Appendix C (continued)

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										0
40-44			1		5					6
			45,556		57,584					55,579
45-49			3	2	15	21				41
			76,582	72,241	74,860	65,341				69,983
50-54	1		3	1	35	50	20	1		111
	72,963		63,074	64,869	67,490	68,608	68,396	89,341		68,260
55-59		1	5	7	29	62	35	12	1	152
		57,148	47,572	61,108	73,856	77,177	73,226	73,659	65,236	73,432
60-64				2	9	18	15	9		53
				63,096	65,118	68,610	61,885	56,002		63,765
65-69					3	2	2	3	1	11
					73,406	54,101	76,048	68,509	127,982	74,002
70-74					1	1			1	3
					66,542	38,240			53,497	52,760
75+						1				1
						40,873				40,873
Total	1	1	12	12	97	155	72	25	3	378
	72,963	57,148	58,532	63,608	69,975	71,031	69,600	67,312	82,238	69,667
						Total Salary		\$26,333,961		
						Average Age		55.51		
						Average Service		26.58		

Appendix C (continued)

**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										0
25-29	6	19	1							26
	55,435	54,092	55,137							54,442
30-34	18	96	17							131
	63,714	61,232	57,724							61,118
35-39	20	106	95	24						245
	62,777	60,653	59,796	55,487						59,988
40-44	26	157	108	51	7					349
	67,684	64,616	63,413	59,984	59,221					63,687
45-49	26	146	115	79	29					395
	59,543	66,079	64,187	66,835	70,494					65,573
50-54	28	140	97	55	20					340
	62,320	69,928	67,989	61,515	76,524					67,775
55-59	7	93	87	57	20		1			265
	70,363	67,282	62,502	59,809	55,803		78,434			63,362
60-64	5	38	17	35	12					107
	55,638	66,314	47,949	54,989	80,873					60,826
65-69		6	8	5	1					20
		65,725	45,212	66,546	48,857					56,882
70-74		2	2	1	1					6
		37,042	51,965	129,534	59,629					61,196
75+				1						1
				41,455						41,455
Total	136	803	547	308	90	0	1	0	0	1,885
	62,931	64,960	62,634	61,336	68,715	0	78,434	0	0	63,733

Total Salary \$120,136,496
 Average Age 46.95
 Average Service 10.41



Appendix C (continued)

**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	7									7
	45,405									45,405
25-29	20	4								24
	48,118	45,425								47,669
30-34	13	11	1							25
	65,099	54,711	66,246							60,574
35-39	7	12	5							24
	55,235	58,162	58,058							57,287
40-44	10	9	13	5	3					40
	56,844	60,144	57,689	61,801	55,176					58,356
45-49	4	8	8	4	3					27
	62,852	56,920	77,235	55,684	54,306					63,345
50-54	5	6	6	3	4	1				25
	76,395	52,975	64,793	52,420	55,415	76,825				61,773
55-59	3	1	9	4		1				18
	45,315	22,778	53,451	56,094		49,936				50,783
60-64	2	1	1	1		1				6
	42,847	42,275	45,555	48,059		66,963				48,091
65-69		1	1	2						4
		65,193	50,648	54,749						56,335
70-74										0
75+										0
Total	71	53	44	19	10	3	0	0	0	200
	55,445	55,212	61,145	56,365	55,011	64,575	0	0	0	56,840

Total Salary \$11,367,957
 Average Age 41.97
 Average Service 8.13

Appendix C (continued)

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	6									6
	34,618									34,618
20-24	107									107
	41,391									41,391
25-29	289									289
	49,089									49,089
30-34	340	3								343
	55,529	65,384								55,615
35-39	242									242
	57,643									57,643
40-44	220									220
	53,620									53,620
45-49	194	1								195
	57,354	85,975								57,500
50-54	169	1								170
	59,658	54,101								59,625
55-59	83	3								86
	63,326	75,260								63,742
60-64	31	2								33
	53,920	44,660								53,359
65-69	4									4
	56,972									56,972
70-74	1									1
	41,190									41,190
75+										0
Total	1,686	10	0	0	0	0	0	0	0	1,696
	54,481	65,133	0	0	0	0	0	0	0	54,544
						Total Salary	\$92,505,957			
						Average Age	38.13			
						Average Service	1.51			


Appendix C (continued)

**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											0
40-44					3						3
					103,982						103,982
45-49			1		9	2					12
			135,253		93,667	94,386					97,252
50-54				2	8	15	5	1			31
				91,419	89,412	87,985	89,541	134,989			90,342
55-59					3	13	7	1			20
					92,934	89,959	101,461	122,460			95,441
60-64						2	2				4
						91,599	98,560				95,080
65-69											0
70-74											0
75+											0
Total	0	0	1	2	23	32	14	2	0		70
	0	0	135,253	91,419	93,437	89,413	96,789	128,725	0		99,155
					Total Salary		\$6,568,718				
					Average Age		52.74				
					Average Service		26.17				

Appendix C (continued)

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
 4										0
25-29		4								4
		70,342								70,342
30-34	5	17	3							25
	62,945	76,157	87,474							74,872
35-39	3	20	22	3						48
	68,211	77,579	86,622	80,396						81,314
40-44	3	12	27	15	4					61
	64,655	86,733	82,354	83,049	83,257					82,575
45-49	1	7	13	11	8					40
	57,110	83,953	87,117	87,876	85,477					85,694
50-54	1	2	7	10	8					28
	69,099	81,144	73,547	93,193	89,622					85,540
55-59			3	2	4					9
			78,433	99,175	85,759					86,299
60-64										0
65-69										0
70-74			1							1
			71,060							71,060
75+										0
Total	13	62	76	41	24	0	0	0	0	216
	64,579	79,329	83,492	87,411	86,536	0	0	0	0	82,241
						Total Salary	\$17,763,983			
						Average Age	42.43			
						Average Service	12.19			

Appendix C (continued)

Annual Salary and Membership Distribution
of Active Safety Plan 4 Members

YEARS OF SERVICE										
Age Group	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	TOTAL
0-19										0
20-24	7									7
	58,835									58,835
25-29	31									31
	64,659									64,659
30-34	43									43
	69,581									69,581
35-39	39									39
	72,222									72,222
40-44	15									15
	72,718									72,718
45-49	3									3
	87,306									87,306
50-54	4									4
	69,491									69,491
55-59	2									2
	71,617									71,617
60-64	1									1
	73,212									73,212
65-69										0
70-74										0
75+										0
<hr/>										
Total	145	0	0	0	0	0	0	0	0	145
	69,462	0	0	0	0	0	0	0	0	69,462
						Total Salary				
						\$10,072,016				
						Average Age				
						34.19				
						Average Service				
						1.88				

Appendix C (continued)

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										0
45-49		1	1		2					4
		42,922	79,091		83,126					72,066
50-54		3	9		1					13
		58,212	80,181		49,837					72,777
55-59	1	1	10							12
	79,091	71,536	79,075							78,448
60-64										0
65-69										0
70-74										0
75+										0
Total	1	5	20	0	3	0	0	0	0	29
	79,091	57,819	79,574	0	72,030	0	0	0	0	75,026

Total Salary	\$2,175,741
Average Age	53.38
Average Service	11.14

Appendix C (continued)

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	1	2								3
	51,231	56,162								54,518
30-34	8	14	3							25
	61,662	60,614	57,025							60,519
35-39	1	13	12	1						27
	67,653	60,554	67,703	65,618						64,182
40-44	1	4	12							17
	72,884	73,321	71,454							71,978
45-49		2	12		2					16
		67,467	70,451		76,929					70,888
50-54		3	7							10
		53,267	76,796							69,737
55-59			6							6
			75,202							75,202
60-64										0
65-69										0
70-74										0
75+										0
Total	11	38	52	1	2	0	0	0	0	104
	62,279	61,477	70,676	65,618	76,929	0	0	0	0	66,498
						Total Salary		\$6,915,848		
						Average Age		40.32		
						Average Service		8.82		


Appendix C (continued)

**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	7									7
	45,548									45,548
25-29	55									55
	51,832									51,832
30-34	45									45
	52,637									52,637
35-39	20									20
	57,224									57,224
40-44	9									9
	60,891									60,891
45-49	4									4
	57,550									57,550
50-54	2									2
	46,383									46,383
55-59	6									6
	70,769									70,769
60-64		1								1
		71,536								71,536
65-69										0
70-74										0
75+										0
Total	148	1	0	0	0	0	0	0	0	149
	53,908	71,536	0	0	0	0	0	0	0	54,026
						Total Salary	\$8,049,850			
						Average Age	32.97			
						Average Service	1.59			


Appendix C (continued)

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
 25-29										0
30-34										0
35-39										0
40-44										0
45-49										0
50-54	84	1								85
	8,724	6,731								8,701
55-59	135	60								195
	13,288	10,765								12,512
60-64	203	94	47							344
	20,690	12,967	10,622							17,204
65-69	128	147	67	37	1					380
	22,492	21,792	16,476	11,035	37,695					20,085
70-74	35	138	116	63	39	1				392
	21,399	22,309	21,083	15,130	10,741	7,841				19,523
75+	8	44	179	304	272	140	28	3		978
	37,143	16,367	21,844	18,891	16,021	16,368	11,725	4,937		18,060
Total	593	484	409	404	312	141	28	3	0	2,374
	17,963	18,334	19,459	17,585	15,430	16,308	11,725	4,937	0	17,711
Total Annual Benefit						\$42,045,767				
Average Age						71.57				
Average Years Retired						11.74				


Appendix C (continued)

**ANNUAL BENEFIT AND MEMBERSHIP DISTRIBUTION
OF NON-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
										0
25-29										0
30-34										0
35-39										0
40-44	6 15,127									6 15,127
45-49	4 18,183	1 22,955								5 19,137
50-54	9 11,827	6 15,207	2 16,715							17 13,595
55-59	4 15,362	3 12,371	1 23,117							8 15,210
60-64	9 15,262	8 10,574	5 13,219	5 16,490	1 23,704	2 11,667	1 10,888			31 13,820
65-69	1 16,718	4 10,707	5 14,984	3 12,613						13 13,254
70-74			3 9,640	2 9,063	5 13,796		1 14,109			11 11,830
75+	1 13,020	1 9,415	4 6,595	3 10,331	15 13,940	11 13,697	5 11,854	1 8,310		41 12,370
Total	34 14,661	23 12,528	20 12,643	13 13,031	21 14,371	13 13,385	7 12,038	1 8,310	0 0	132 13,464
							Total Annual Benefit \$1,777,245			
							Average Age 65.94			
							Average Years Retired 13.38			


Appendix C (continued)

**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
										0
25-29										0
30-34										0
35-39	4 18,575									4 18,575
40-44	6 24,062	1 37,772								7 26,020
45-49	5 24,528	3 24,508	1 23,887							9 24,450
50-54	7 23,143	3 20,965	3 33,611							13 25,056
55-59	15 24,708	5 21,146	3 24,986							23 23,970
60-64	9 23,326	4 21,843	4 24,157							17 23,173
65-69	5 20,933	4 18,068	3 22,396			1 22,556				13 20,514
70-74	1 27,139		4 24,430	1 16,446		2 18,408				8 22,265
75+				3 30,427	4 26,417	6 27,153		1 13,080		14 26,639
Total	52 23,378	20 21,978	18 25,623	4 26,932	4 26,417	9 24,699	0 0	1 13,080	0 0	108 23,752
	Total Annual Benefit					\$2,565,210				
	Average Age					60.35				
	Average Years Retired					8.19				


Appendix C (continued)

ANNUAL BENEFIT AND MEMBERSHIP DISTRIBUTION
OF GENERAL 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	2 11,512	4 4,959								6 7,143
 25-29										0
30-34										0
35-39	1 3,670		1 11,163							2 7,417
40-44	3 20,683		1 7,162							4 17,303
45-49	4 13,082	3 5,652		1 13,043						8 10,291
50-54	5 27,140	4 12,770	2 6,551	1 18,723	1 8,301	1 2,557				14 16,390
55-59	4 22,451	5 15,198	8 15,059	3 8,284	1 4,611	1 2,959				22 14,486
60-64	6 25,432	6 10,683	4 10,152	2 13,478	1 13,398	1 18,082				20 15,787
65-69	4 13,687	9 18,615	9 10,518	4 10,712	5 11,972	5 5,662				36 12,443
70-74		11 11,264	17 23,839	12 19,702	8 12,616	1 7,541				49 17,838
75+	2 2,245	7 9,931	19 13,657	42 12,031	83 12,953	70 12,166	27 14,006	7 12,174	1 7,836	258 12,545
Total	31 18,658	49 12,019	61 15,605	65 13,356	99 12,749	79 11,533	27 14,006	7 12,174	1 7,836	419 13,441
	Total Annual Benefit					\$5,631,895				
	Average Age					75.06				
	Average Years Retired					18.31				


Appendix C (continued)

**ANNUAL BENEFIT AND MEMBERSHIP DISTRIBUTION
OF RETIRED SAFETY AND PROBATION 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	
										0	
25-29										0	
30-34										0	
35-39										0	
40-44										0	
45-49	2									2	
	25,170									25,170	
50-54	14	1	1							16	
	30,407	4,002	25,080							28,424	
55-59	66	13	2							81	
	50,736	32,745	29,735							47,330	
60-64	35	47	7	2						91	
	41,691	47,018	25,409	32,958						42,998	
65-69	8	14	10	3						35	
	22,288	28,864	38,315	40,830						31,087	
70-74	2	3	4	5	5					19	
	8,770	26,758	61,542	42,719	21,540					35,015	
75+			1		7	11	1			20	
			8,457		52,547	43,429	23,434			43,872	
Total	127	78	25	10	12	11	1	0	0	264	
	43,147	40,050	36,008	40,200	39,627	43,429	23,434	0	0	41,221	
			Total Annual Benefit			\$10,882,474					
			Average Age			62.50					
			Average Years Retired			6.95					


Appendix C (continued)

**ANNUAL BENEFIT AND MEMBERSHIP DISTRIBUTION
OF RETIRED SAFETY AND PROBATION MEMBERS NON-SERVICE CONNECTED 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
										0
25-29										0
30-34										0
35-39	1 14,738									1 14,738
40-44										0
45-49										0
50-54										0
55-59				1 4,438						1 4,438
60-64		2 13,912								2 13,912
65-69										0
70-74										0
75+					1 34,530		1 30,531			2 32,531
Total	1 14,738	2 13,912	0 0	1 4,438	1 34,530	0 0	1 30,531	0 0	0 0	6 18,677
							Total Annual Benefit			\$112,060
							Average Age			63.00
							Average Years Retired			14.33


Appendix C (continued)

**ANNUAL BENEFIT AND MEMBERSHIP DISTRIBUTION
OF RETIRED SAFETY AND PROBATION MEMBERS SERVICE CONNECTED 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
										0
25-29										0
30-34	2									2
	36,861									36,861
35-39	4									4
	34,574									34,574
40-44	2									2
	33,905									33,905
45-49	1	1	1							3
	33,509	35,012	30,758							33,093
50-54	6	2	5							13
	43,350	26,574	30,657							35,887
55-59	7	4	3		2					16
	54,984	43,783	30,950		30,441					44,610
60-64	4	6	6		2	1	1			20
	47,336	49,451	37,496		33,917	31,987	28,444			41,964
65-69			2			2	1			5
			30,191			27,987	18,829			27,037
70-74							1			1
							22,676			22,676
75+					2	1			1	4
					33,110	20,131			12,960	24,828
Total	26	13	17	0	6	4	3	0	1	70
	44,141	43,077	33,074	0	32,489	27,023	23,316	0	12,960	37,941
	Total Annual Benefit					\$2,655,855				
	Average Age					57.00				
	Average Years Retired					10.37				

Appendix C (continued)

**ANNUAL BENEFIT AND MEMBERSHIP DISTRIBUTION
OF SAFETY AND PROBATION 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										0
20-24										0
										0
30-34										0
35-39		1 46,527								1 46,527
40-44	1 9,455									1 9,455
45-49	2 11,439		1 42,871							3 21,916
50-54	2 41,143	2 17,517	2 20,984	1 30,784	1 9,154					8 24,903
55-59		4 9,983	2 18,218		1 9,797					7 12,309
60-64		6 19,694	2 17,969			1 23,180				9 19,698
65-69	1 24,256	1 8,655	2 34,016	3 35,298	1 16,526					8 27,920
70-74		1 7,474	2 48,583		2 35,984	1 27,437				6 34,008
75+	2 12,045				2 18,148	7 23,121	1 15,724	2 18,239	1 17,552	15 19,466
Total	8 20,371	15 17,052	11 29,310	4 34,170	7 20,534	9 23,607	1 15,724	2 18,239	1 17,552	58 22,479
			Total Annual Benefit			\$1,303,800				
			Average Age			66.19				
			Average Years Retired			15.00				

Appendix C (continued)

**SUMMARY OF MONTHLY ALLOWANCES BEING PAID
AS OF JUNE 30, 2002**

General Members	Count	Monthly Allowance		
		Basic	COLA	Total
Service Retirement				
Unmodified	2,157	2,157,217	1,110,900	3,268,117
Option 1	92	76,006	48,246	124,252
Options 2, 3 & 4	125	84,478	26,967	111,445
Total	2,374	2,317,701	1,186,113	3,503,814
Ordinary Disability				
Unmodified	119	84,549	51,538	136,087
Option 1	7	2,887	2,477	5,364
Options 2, 3 & 4	6	5,418	1,235	6,653
Total	132	92,854	55,250	148,104
Duty Disability				
Unmodified	100	151,424	48,092	199,516
Option 1	6	7,839	3,520	11,359
Options 2, 3 & 4	2	2,237	655	2,892
Total	108	161,500	52,267	213,767
Beneficiary				
Total	419	235,111	234,214	469,325
Total (all groups)	3,033	2,807,166	1,527,844	4,335,010

Safety and Probation Members

Safety and Probation Members	Count	Monthly Allowance		
		Basic	COLA	Total
Service Retirement				
Unmodified	252	684,623	195,695	880,318
Option 1	4	5,870	3,005	8,875
Options 2, 3 & 4	8	13,502	4,178	17,680
Total	264	703,995	202,878	906,873
Ordinary Disability				
Unmodified	6	4,596	4,742	9,338
Option 1	-	-	-	-
Options 2, 3 & 4	-	-	-	-
Total	6	4,596	4,742	9,338
Duty Disability				
Unmodified	68	159,004	57,338	216,342
Option 1	-	-	-	-
Options 2, 3 & 4	2	3,850	1,129	4,979
Total	70	162,854	58,467	221,321
Beneficiary				
Total	58	60,505	48,145	108,650
Total (all groups)	398	931,950	314,232	1,246,182

Appendix D: Members' Contribution Rates

MEMBERS' CONTRIBUTION RATES (Old Formula)

ENTRY AGE	GENERAL		SAFETY		PROBATION
	Plans 1 & 2	Plan 4	Plans 1 & 2	Plan 4	Plans 1, 2 & 4
16	5.47%	5.22%			
17	5.47%	5.22%			
18	5.47%	5.22%	6.75%	6.42%	7.56%
19	5.47%	5.22%	6.75%	6.42%	7.56%
20	5.47%	5.22%	6.75%	6.43%	7.57%
21	5.48%	5.22%	6.77%	6.44%	7.58%
22	5.49%	5.23%	6.78%	6.46%	7.60%
23	5.50%	5.25%	6.80%	6.47%	7.61%
24	5.52%	5.26%	6.82%	6.49%	7.64%
25	5.54%	5.28%	6.84%	6.51%	7.66%
26	5.56%	5.30%	6.87%	6.54%	7.69%
27	5.59%	5.33%	6.90%	6.57%	7.73%
28	5.62%	5.36%	6.94%	6.60%	7.77%
29	5.65%	5.39%	6.98%	6.64%	7.82%
30	5.68%	5.42%	7.03%	6.69%	7.87%
31	5.72%	5.45%	7.08%	6.74%	7.93%
32	5.76%	5.49%	7.14%	6.79%	7.99%
33	5.80%	5.53%	7.20%	6.85%	8.06%
34	5.85%	5.58%	7.27%	6.92%	8.14%
35	5.90%	5.63%	7.34%	6.99%	8.22%
36	5.96%	5.68%	7.42%	7.06%	8.31%
37	6.02%	5.74%	7.50%	7.14%	8.40%
38	6.09%	5.80%	7.59%	7.22%	8.50%
39	6.15%	5.87%	7.68%	7.31%	8.60%
40	6.22%	5.94%	7.78%	7.40%	8.71%
41	6.30%	6.01%	7.88%	7.50%	8.82%
42	6.38%	6.08%	7.99%	7.60%	8.94%
43	6.46%	6.16%	8.09%	7.70%	9.06%
44	6.54%	6.24%	8.21%	7.81%	9.19%
45	6.63%	6.32%	8.32%	7.92%	9.32%
46	6.72%	6.41%	8.44%	8.03%	9.45%
47	6.82%	6.50%	8.56%	8.15%	9.59%
48	6.92%	6.60%	8.69%	8.48%	9.97%
49	7.02%	6.70%	8.82%	8.82%	10.37%
50	7.13%	6.80%			
51	7.24%	6.90%			
52	7.35%	7.01%			
53	7.47%	7.12%			
54	7.59%	7.24%			
55	7.71%	7.35%			
56	7.83%	7.47%			
57	7.95%	7.59%			
58	8.08%	7.89%			
59 & Over	8.21%	8.21%			

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

Section	GENERAL		SAFETY		PROBATION OFFICERS
	Plans 1 & 2	Plan 4	Plans 1 & 2	Plan 4	Plans 1, 2 & 4
Years of Final Average Salary	31676.1	31676.1	31664	31664	31664
Percent of Full Rates	1	3	1	3	3
	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 D: Members' Contribution Rates

MEMBERS' CONTRIBUTION RATES (New Formula)											
ENTRY AGE	GENERAL			SAFETY				PROBATION			
	Plans 1 & 2	Plan 4	Cost Sharing* August 30, 2003	Plans 1 & 2	Plan 4	Cost Sharing* July 1, 2003	Cost Sharing* January 1, 2004	Plans 1 & 2**	Plans 4**	Cost Sharing* October 12, 2003	Cost Sharing* January 1, 2004
16	5.47%	5.22%	1.00%								
17	5.47%	5.22%	1.00%								
18	5.47%	5.22%	1.00%	6.75%	6.42%	2.00%	3.00%	7.94%	7.56%	1.50%	2.50%
19	5.47%	5.22%	1.00%	6.75%	6.42%	2.00%	3.00%	7.94%	7.56%	1.50%	2.50%
20	5.47%	5.22%	1.00%	6.75%	6.43%	2.00%	3.00%	7.95%	7.57%	1.50%	2.50%
21	5.48%	5.22%	1.00%	6.77%	6.44%	2.00%	3.00%	7.97%	7.58%	1.50%	2.50%
22	5.49%	5.23%	1.00%	6.78%	6.46%	2.00%	3.00%	7.98%	7.60%	1.50%	2.50%
23	5.50%	5.25%	1.00%	6.80%	6.47%	2.00%	3.00%	8.00%	7.61%	1.50%	2.50%
24	5.52%	5.26%	1.00%	6.82%	6.49%	2.00%	3.00%	8.02%	7.64%	1.50%	2.50%
25	5.54%	5.28%	1.00%	6.84%	6.51%	2.00%	3.00%	8.05%	7.66%	1.50%	2.50%
26	5.56%	5.30%	1.00%	6.87%	6.54%	2.00%	3.00%	8.08%	7.69%	1.50%	2.50%
27	5.59%	5.33%	1.00%	6.90%	6.57%	2.00%	3.00%	8.12%	7.73%	1.50%	2.50%
28	5.62%	5.36%	1.00%	6.94%	6.60%	2.00%	3.00%	8.16%	7.77%	1.50%	2.50%
29	5.65%	5.39%	1.00%	6.98%	6.64%	2.00%	3.00%	8.21%	7.82%	1.50%	2.50%
30	5.68%	5.42%	1.00%	7.03%	6.69%	2.00%	3.00%	8.27%	7.87%	1.50%	2.50%
31	5.72%	5.45%	1.00%	7.08%	6.74%	2.00%	3.00%	8.33%	7.93%	1.50%	2.50%
32	5.76%	5.49%	1.00%	7.14%	6.79%	2.00%	3.00%	8.40%	7.99%	1.50%	2.50%
33	5.80%	5.53%	1.00%	7.20%	6.85%	2.00%	3.00%	8.47%	8.06%	1.50%	2.50%
34	5.85%	5.58%	1.00%	7.27%	6.92%	2.00%	3.00%	8.55%	8.14%	1.50%	2.50%
35	5.90%	5.63%	1.00%	7.34%	6.99%	2.00%	3.00%	8.64%	8.22%	1.50%	2.50%
36	5.96%	5.68%	1.00%	7.42%	7.06%	2.00%	3.00%	8.73%	8.31%	1.50%	2.50%
37	6.02%	5.74%	1.00%	7.50%	7.14%	2.00%	3.00%	8.83%	8.40%	1.50%	2.50%
38	6.09%	5.80%	1.00%	7.59%	7.22%	2.00%	3.00%	8.93%	8.50%	1.50%	2.50%
39	6.15%	5.87%	1.00%	7.68%	7.31%	2.00%	3.00%	9.04%	8.60%	1.50%	2.50%
40	6.22%	5.94%	1.00%	7.78%	7.40%	2.00%	3.00%	9.15%	8.71%	1.50%	2.50%
41	6.30%	6.01%	1.00%	7.88%	7.50%	2.00%	3.00%	9.27%	8.82%	1.50%	2.50%
42	6.38%	6.08%	1.00%	7.99%	7.60%	2.00%	3.00%	9.39%	8.94%	1.50%	2.50%
43	6.46%	6.16%	1.00%	8.09%	7.70%	2.00%	3.00%	9.52%	9.06%	1.50%	2.50%
44	6.54%	6.24%	1.00%	8.21%	7.81%	2.00%	3.00%	9.65%	9.19%	1.50%	2.50%
45	6.63%	6.32%	1.00%	8.32%	7.92%	2.00%	3.00%	9.79%	9.32%	1.50%	2.50%
46	6.72%	6.41%	1.00%	8.44%	8.03%	2.00%	3.00%	9.93%	9.45%	1.50%	2.50%
47	6.82%	6.50%	1.00%	8.56%	8.15%	2.00%	3.00%	10.07%	9.59%	1.50%	2.50%
48	6.92%	6.60%	1.00%	8.69%	8.28%	2.00%	3.00%	10.22%	9.74%	1.50%	2.50%
49	7.02%	6.70%	1.00%	8.82%	8.41%	2.00%	3.00%	10.37%	9.89%	1.50%	2.50%
50	7.13%	6.80%	1.00%								
51	7.24%	6.90%	1.00%								
52	7.35%	7.01%	1.00%								
53	7.47%	7.12%	1.00%								
54	7.59%	7.24%	1.00%								
55	7.71%	7.35%	1.00%								
56	7.83%	7.47%	1.00%								
57	7.95%	7.59%	1.00%								
58	8.08%	7.89%	1.00%								
59 & Over	8.21%	8.21%	1.00%								



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

Section	GENERAL		SAFETY		PROBATION OFFICERS	
	Plans 1 & 2	Plan 4	Plans 1 & 2	Plan 4	Plans 1 & 2	Plans 4
Years of Final Average Salary	1	3	1	3	1	3
Percent of Full Rates	100%	100%	85%	85%	100%**	100%**

* Cost sharing is paid by all members, including those General members with over 30 years of service. Safety and Probation members with over 30 years of service do not pay basic contributions but continue to pay 100% of cost sharing contributions.

** For Probation members, these rates do not reflect the 15% county pick-up at October 12, 2003. As of October 12, 2003, their rates should be calculated by taking the above rates and multiplying by 85%. Members will continue to pay 100% of the cost sharing contributions.

Appendix E: Glossary of Actuarial Terminology

AAL. See Actuarial Accrued Liability

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

Actuarial Accrued Liability. "Target assets" which would be on hand were the 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

Appendix E (continued)

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.

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