November 2002

Actuarial Valuation Report
As of June 30, 2002

City of San Rafael

Marin County Employees' Retirement Association

MERCER
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November 27, 2002

Board of Retirement
Marin County Employees'
Retirement Association
3501 Civic Center Drive, Room 408
San Rafael, California 94903

Dear Members of the Board:

We are pleased to present the actuarial valuation for the City of San Rafael members covered under the Marin County Employees' Retirement Association prepared as of June 30, 2002 by Mercer Human Resource Consulting. The report includes:

(1) a determination of the recommended employer contribution rates. These rates are calculated to be effective July 1, 2003;

(2) a determination of the recommended member contribution rates, also to be effective July 1, 2003;

(3) a determination of the funded status as of June 30, 2002; and

(4) financial reporting and disclosure information pursuant to applicable accounting standards.

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

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

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

Sincerely,

Andy Yeung

Marcia L. Chapman

Andy Yeung, ASA, EA, MAAA

Marcia L. Chapman, FSA, EA, MAAA

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Actuarial Certification

Actuarial Certification

The actuarial valuation required for the City of San Rafael members of the Marin 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 provided to us by the Association's staff. This data has not been audited by us, but it has been reviewed and found to be consistent, both internally and with the June 30, 2001 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 negative Unfunded Actuarial Accrued Liability (i.e., surplus) is a "rolling" (i.e., non-decreasing) 16-year period. The contribution credit from the surplus is calculated to remain as a level percentage of future payroll (including projected payroll for future members). Credits will increase 4.25% per year. The period for amortizing the Unfunded Actuarial Accrued Liability is set by the Board of Retirement.

Contribution levels are recommended by the Actuary and adopted by the Board each year. The ratio of Actuarial Value of Assets to Actuarial Accrued Liabilities decreased from 108% to 102% last year, primarily due to unfavorable investment experience.

There were no plan changes since our last valuation, as of June 30, 2001.

There were some assumption changes, both economic and non-economic, as a result of our biennial experience analysis. For details on the assumption changes, please see our report entitled "Active and Retired Experience Analysis for the Period July 1 2000–June 30, 2002," hereafter referred to as the June 30, 2002 Experience Analysis.

In our opinion, 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.

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

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

We are available to answer any questions on the material contained in this report, or to provide explanations or further details as may be appropriate.

Mercer Human Resource Consulting

Andy Yeung

Andy Yeung, ASA, EA, MAAA

November 27, 2002

Date

Marcia L. Chapman

Marcia L. Chapman, FSA, EA, MAAA

November 27, 2002

Date

Board Member Summary of Valuation Results

Summary of Recommendations

Employer Contribution Rates	June 30, 2002	June 30, 2001	Increase/(Decrease)
Normal Cost Rate:	12.40%	11.75%	0.65%
Rate of Contribution (Credit) for Unfunded Actuarial Accrued Liability:	-1.05%	-4.23%	3.18%
Total Employer Rate:	11.35%	7.52%	3.83%
Estimated Annual Amount *:	$ 3,090,000	$ 2,048,000	$ 1,042,000

Member Contribution Rates**	June 30, 2002	June 30, 2001	Increase/(Decrease)
Miscellaneous Members	8.16%	8.08%	0.08%
Safety Members	10.28%	10.18%	0.10%
Aggregate Rate	9.14%	9.04%	0.10%
Estimated Annual Amount	$ 2,489,000	$ 2,460,000	$ 29,000

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%
Ultimate Average Annual Salary Increases: (Miscellaneous/Safety)	5.75%/5.63%	5.65%/5.53%	0.10%/0.10%

Other assumptions are based upon the June 30, 2002 experience analysis.

* Result based on total annual salaries as of July 1, 2002 of $27,223,000.

** At average entry age of 36 (Miscellaneous Member) and 27 (Safety Member)

For Informational Purpose Only	June 30, 2002 Employer Rate	June 30, 2002 Member Rate
Impact of Removing *** COLA Cap on Member Contributions	-0.66%	0.69%
Dollar Impact	-$180,000	$188,000

*** This is the additional impact on the city's contribution rate if the city and the bargaining groups were to agree to the removal of COLA Cap on member COLA contributions, effective July, 1, 2003.

Summary of Significant Actuarial Statistics and Measures

Association Membership	June 30, 2002	June 30, 2001	Increase/ (Decrease)
Active Members			
1. Number of Members	408	412	-1.0%
2. Total Active Payroll	$ 27,223,000	$ 25,650,000	6.1%
3. Average Monthly Salary	$ 5,560	$ 5,188	7.2%
Retired Members			
1. Number of Members			
Service Retirement	185	182	1.6%
Disability Retirement	55	55	0.0%
Beneficiaries	50	50	0.0%
2. Total Retired Payroll	$ 6,416,000	$ 5,737,000	11.8%
3. Average Monthly Pension	$ 1,844	$ 1,666	10.7%
Inactive Vested Members			
1. Number of Members	116	110	5.5%
Asset Values (City of San Rafael)			
Market Value *	$ 165,569,000	$ 180,680,000	-8.4%
Return on Market Value	-6.84%	-3.29%	
Actuarial Value*	$ 196,810,000	$ 191,407,000	2.8%
Return on Actuarial Value	4.73%	10.44%	
Liability Values			
Actuarial Accrued Liability	$ 187,118,000	$ 172,939,000	8.2%
Unfunded Actuarial Accrued Liability (UAAL)	$ (3,445,000)	$ (13,146,000)	73.8%
Funding Ratio			
GASB No. 25	102%	108%	-6%

Explanation of Changes in Actuarial Values

Employer Contribution Rates

The average employer contribution rate increased from 7.52% to 11.35% due to the following causes:

	% of Payroll		Dollar Impact
Salary increases more than expected	0.54%	$	147,000
Retiree COLA more than expected	0.06%	$	16,300
Investment loss	2.06%	$	560,800
Reduction in normal cost credit due to increase in payroll over 4.25%	0.08%	$	21,800
Retain amortization period at 16 years	0.05%	$	13,600
Ad-hoc COLA granted by Retirement Board	0.08%	$	21,800
Assumption Changes	0.79%	$	215,100
Other (Gains)/Losses	0.17%	$	46,300
Total	3.83%	$	1,042,000

Explanation of Changes

Salary Increase More than Expected - Average salary increase for continuing actives was higher than what was expected by the current salary increase assumption.

Retiree Cola - Average COLA benefit for continuing retirees was 3.0%, which is more than the 2.75% expected.

Investment loss - the rate of return on the Association's actuarial value of assets was 4.73% resulting in a loss of $6.8 million.

Reduction in normal cost credit due to increase in payroll over 4.25% - The City's active payroll as of June 30, 2002 increased 6.1% over the June 30, 2001 payroll compared to 4.25% expected. This results in a greater dilution of the City's surplus assets as a percentage of payroll, hence a smaller rate credit.

Retain amortization period at 16 years - The City's UAAL amortization period is fixed at 16 years. This produces a constant rate credit only if the City's surplus assets grow at 8.25% and payroll grows at 4.25%. If surplus shrinks, then a rate increase is necessary to retain the 16 year amortization period.

Ad-hoc COLA granted by Retirement Board - The Retirement Board granted a supplemental cost of living increase for eligible retirees who lost more than 20% of their purchasing power.

Assumption Change - Change in assumptions as a result of our June 30, 2002 experience analysis.

Other (Gains)/Losses - Other (gains)/losses from miscellaneous sources, such as deviation of actual experience from actuarial assummption. Since the City's pension plan covers relatively few employees, it is anticipated that the City will experience some other (gains)/losses in any particular year. The following is a history of the City's other (gains)/losses during the last five years:

Valuation Date	Other (Gains)/Losses
6/30/02	0.17%
6/30/01	-0.86%
6/30/00	0.02%
6/30/99	-2.16%
6/30/98	-2.32%

Member Contribution Rates

Member contribution rates changed from 9.04% to 9.14%, due to change in salary scale as a result from our June 30, 2002 experience analysis.

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 employee receives pension checks for 20 years after retirement, a 1% higher rate of investment return will reduce required contributions by about 20% (all else remaining equal). For this reason, setting the investment return assumption is an important decision.

3. *Salary Increases* have a significant impact on the benefit members will receive at retirement. This assumption contains two components -- cost-of-living (inflation) increases plus pay raises that members receive as a result of promotions and step increases.

Setting Economic Assumptions

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

1. Identify components, if any, of each assumption and evaluate relevant data;

2. Develop a best-estimate range for each economic assumption required for the measurement, reflecting appropriate measurement factors; and

3. Further evaluate measurement-specific factors and select a specific point within the best estimate range.

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

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

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

Inflation

Recommendation

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

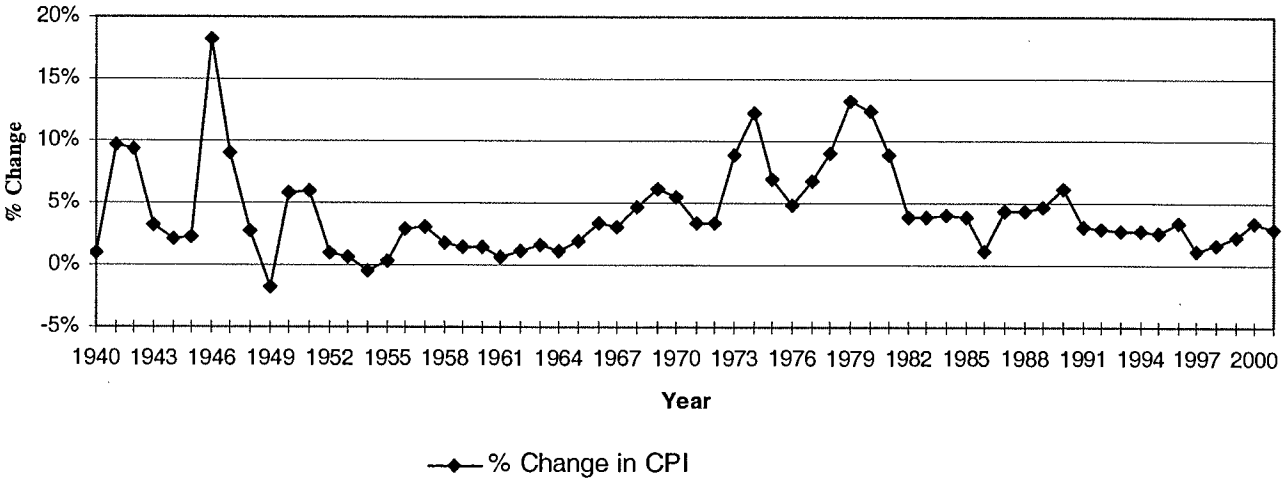
The analysis supporting our recommendation follows.

Setting the Assumption

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

Chart 1

Annual Increase in CPI (1940 Through 2001)



CPI History

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

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

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

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

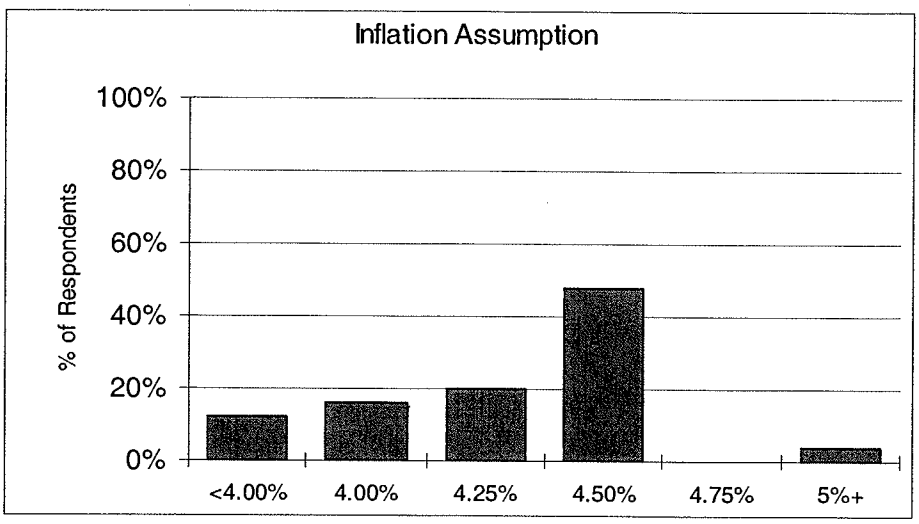
With the exception of the last 30-year period, which is heavily influenced by the high inflationary period between 1972 and 1981, inflation has typically ranged between about 3.00% and 4.50%. On the other hand, the last ten years have produced inflation somewhat below the bottom end of this range. Please note that MCERA utilizes the Bay Area CPI in determining the annual adjustment to retired members' benefits. The average Bay Area CPI was about 4.1% during the last 5 years. After considering both long-term historical and recent trends, we have concluded that an appropriate range for long-term inflation is 3.50% to 4.50%.

Forecasts of Inflation

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

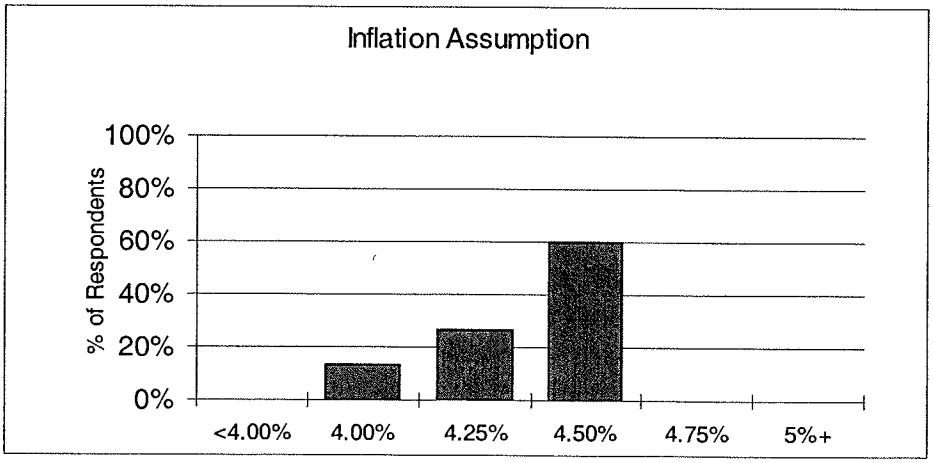
The average inflation rate from the survey for the 25 systems was about 4.25%. Rates used by reporting 1937 Act systems averaged about 4.36%.

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



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

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



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

Treasury Yield Curves

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

Summary

We conclude from our analysis that:

1. Historical inflation data indicates an assumption range of 3.5% to 4.5%.

2. Inflation forecasts inherent in inflation assumptions adopted by similarly situated retirement systems are in the neighborhood of 4.25%.

3. Recent annual adjustments to retired member's benefits was about 4.1%.

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

Investment Return

Recommendation

Based on the following analysis, we recommend that the Board keep the current investment return assumption at 8.25%.

Setting the Assumption

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

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

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

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

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

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

Real Rate of Return on Investments

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

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

Each of these four components is addressed separately.

Real Returns on Classes of Securities

Empirical studies of total real rates of return are available on most classes of securities in which the Association invests. These studies are used to develop historical average real rates of return.

These historical averages are adjusted considering any fundamental changes in the economy, changes in government regulation, and any other factors, which might affect their continued applicability.

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

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

Table 2

Expected Asset Class Returns Net of Inflation (Real)

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

Asset Allocation

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

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

Table 3

MCERA Asset Allocation

At Market Value as of June 30, 2002

	Current	Target *(Mid-point of Allowable Range)*
Domestic Stocks		
▪ Large and Mid Cap	34%	36%
▪ Small Cap	8%	8%
International Stocks	20%	20%
Bonds and Fixed Income	21%	23%
Real Estate	14%	12%
Cash and Equivalents and Short-Term	3%	1%

Applying the target asset allocation (Table 3) to the information in Table 2 results in a real return of approximately 5.47%. As you know, this rate of return is an average expectation and there is a reasonable range within which real returns are expected to fall. For the target asset allocation this range is 4.87% to 6.07%. There are a number of additional factors which must be considered before arriving at an appropriate level for actuarial valuation purposes. These are discussed below.

Expenses to be Paid from Earnings

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

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

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

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

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

Table 4

Expenses as a Percentage of Average Assets

Calendar Year	Administrative	Investment	Total
1998	0.12%	0.54%	0.66%
1999	0.10%	0.27%	0.37%
2000	0.07%	0.29%	0.36%
2001	0.08%	0.29%	0.37%
2002	0.10%	0.49%	0.59%
Average	0.09%	0.38%	0. 47%

The administrative and investment expenses for 2002 were higher than 2001 as a percent of assets because there was a reduction in the market value as of June 30, 2002. We do not believe that this one-year of higher expenses warrants changing our recommendation at this time. We continue to recommend our current expense percentage of 0.40% as an estimate of future expenses. Netting this from the expected real rate of return of 5.47% results in a net real rate of return of 5.07%.

Risk Adjustment

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

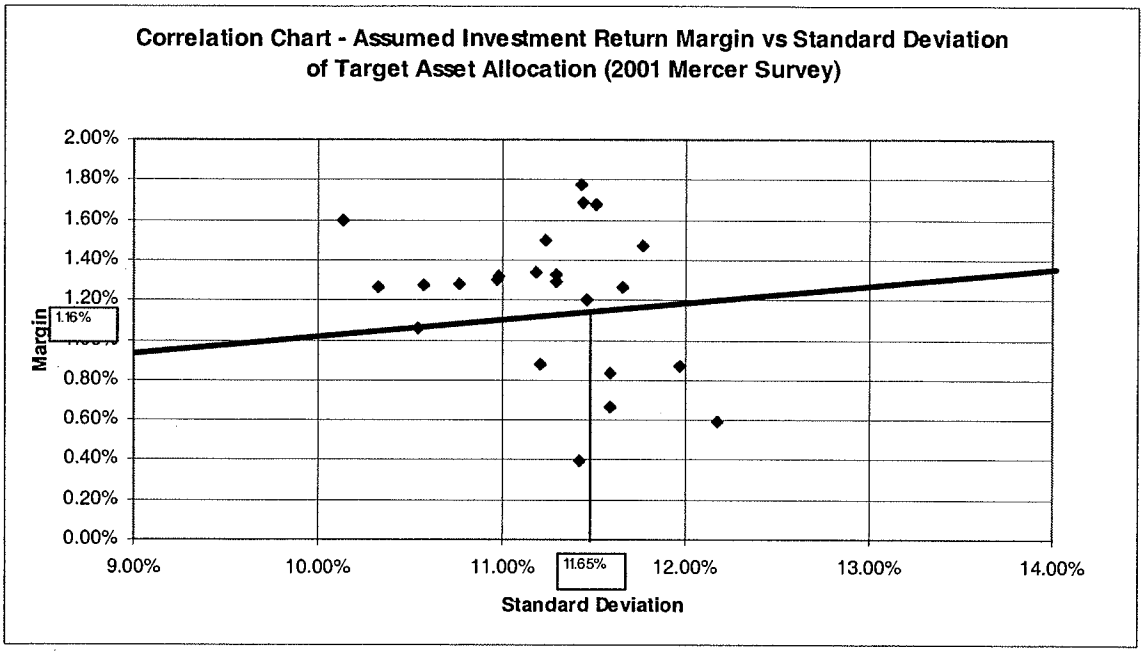
- The probability that actual future returns within asset classes will deviate statistically from historical averages;
- The effect that asset diversification will have on dampening statistical fluctuations of future returns; and
- The expectation that fund managers will underperform or outperform the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

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

In order to determine an appropriate risk adjustment, we utilize a distribution of risk margins used by 25 California public retirement systems (Chart 4) developed from Mercer's 2001 survey of economic assumptions. From this survey we are able to identify implicit risk adjustment within a system's investment return assumption versus the system's risk level as measured by the

standard deviation of their current asset allocation. The diagram in Chart 4 provides that relationship.

Chart 4



As can be observed in the chart, the Association's risk adjustment so calculated would be approximately 1.16%, based on the calculation of the portfolio's annual standard deviation of 11.65% (based on the Association's target asset allocation).

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

Actuarial Valuation Date	Risk Adjustment
6/30/1997	1.40%
6/30/1998	0.94%
6/30/1999	1.08%
6/30/2000	1.41%
6/30/2001	1.07%
Average	**1.18%**

Investment Manager Performance

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

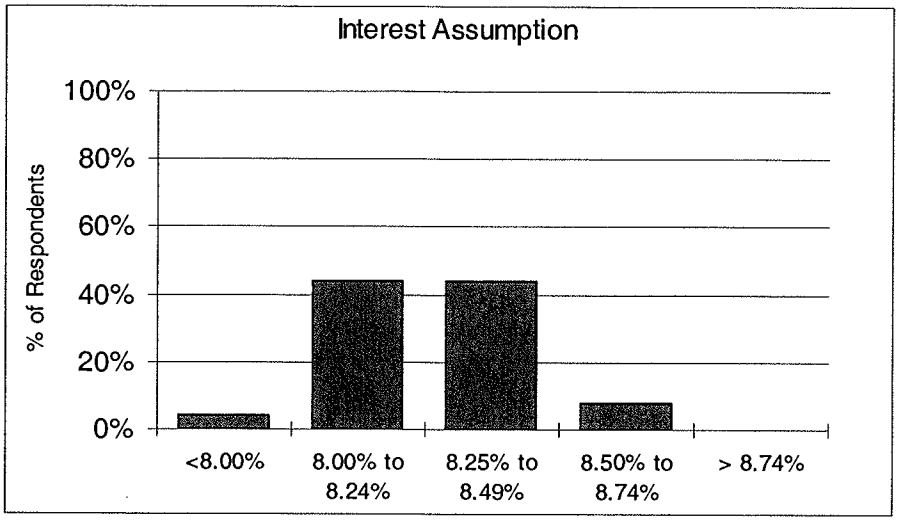
> Anticipating superior (or inferior) investment manager performance may be unduly optimistic (or pessimistic). Few investment managers consistently achieve significant above-market returns net of expenses over long periods. The plan sponsor may replace managers who consistently under perform market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

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

Comparison with Similarly Situated Retirement Systems

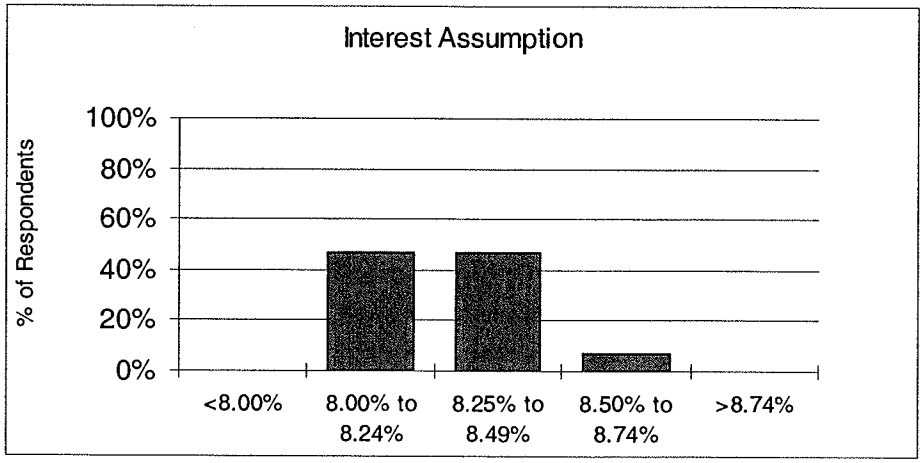
Charts 5 and 6 provide the investment return assumptions used by the 25 California public retirement systems who responded to Mercer's 2001 survey of the economic actuarial assumptions, and the 15 1937 Act respondents, respectively.

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



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

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



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

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

Development of Recommendation

Based on the above analysis, we arrive at a real rate of return assumption of 3.91% (average net real rate of return of 5.07% minus risk adjustment of 1.16%). Combining this rate and the inflation assumption of 4.25% results in an expected return of 8.16%. If we apply this risk adjustment to the range of real returns discussed above, we show a reasonable range of expected returns from 7.56% to 8.76%. Based on this result, we recommend maintaining an investment return assumption of 8.25%, which is within the expected range.

Outlook for the Next Valuation

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

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

Chart 7

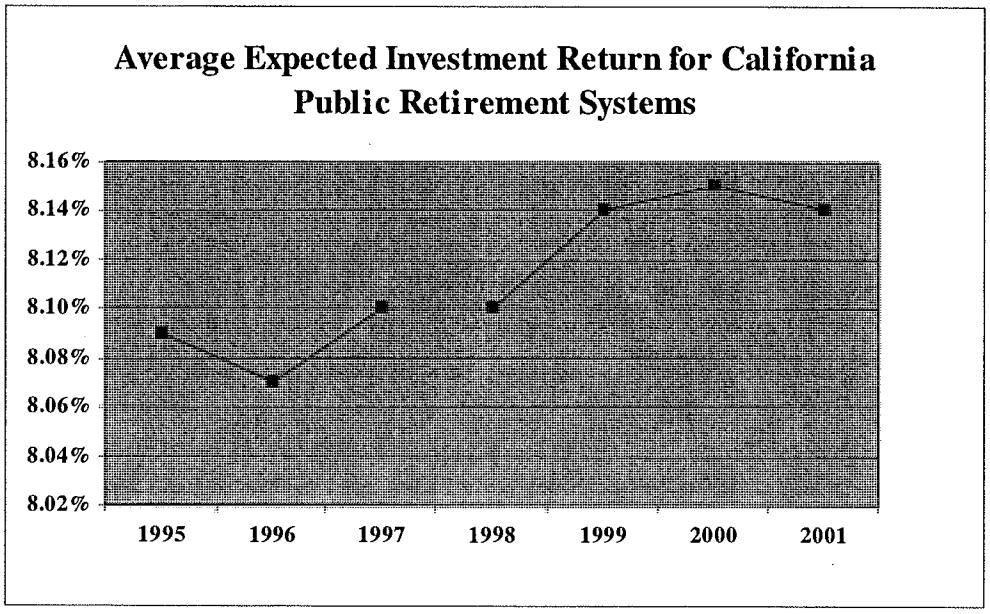
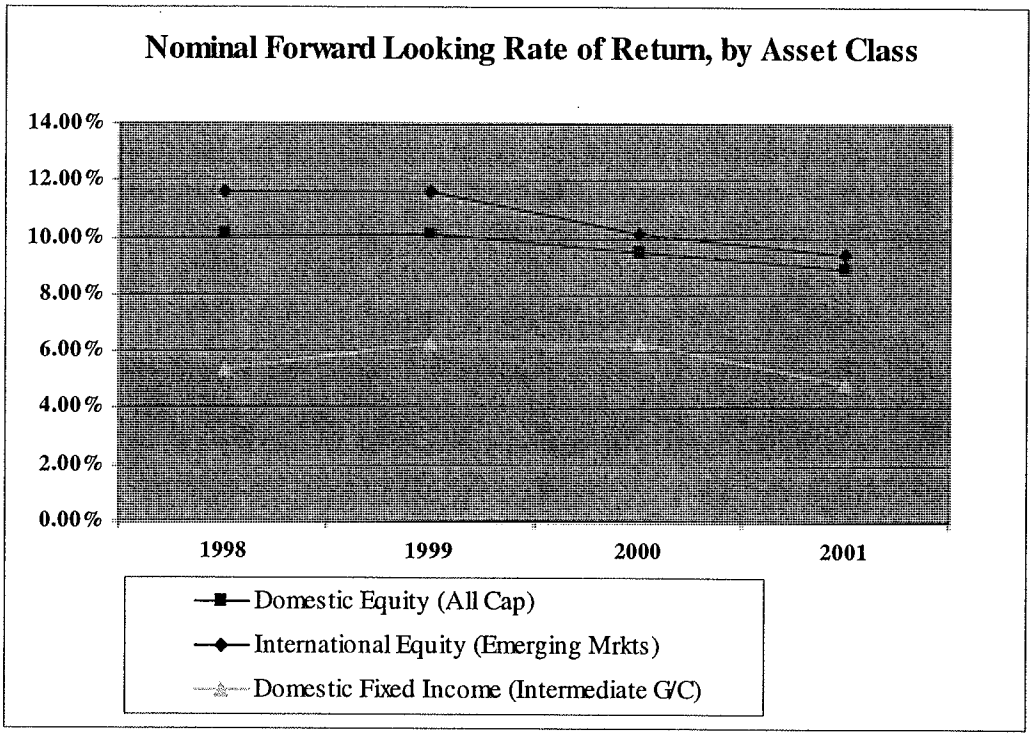


Chart 8


Nominal Forward Looking Rate of Return, by Asset Class
14.00%
12.00%
10.00%
8.00%
6.00%
4.00%
2.00%
0.00%
1998
1999
2000
2001
Domestic Equity (All Cap)
International Equity (Emerging Mrkts)
Domestic Fixed Income (Intermediate G/C)

Salary Increase Assumptions

Recommendations

We are recommending the following changes to the annual real salary increase assumptions:

Real Salary Increase Assumptions				
	Miscellaneous Members		Safety Members	
	Current Salary Increase Assumptions	Recommended Salary Increase Assumptions	Current Salary Increase Assumptions	Recommended Salary Increase Assumptions
Ages 20-24	5.0%	5.0%	4.3%	4.3%
Ages 25-29	3.5%	3.7%	3.1%	3.3%
Ages 30-34	2.7%	2.9%	2.1%	2.2%
Ages 35-39	2.1%	2.3%	1.0%	1.1%
Ages 40-44	1.8%	2.0%	1.0%	1.1%
Ages 45-49	1.5%	1.6%	0.8%	0.9%
Ages 50-54	1.1%	1.2%	0.7%	0.8%
Ages 55-59	0.9%	1.0%	0.7%	0.7%
Ages 60-64	0.8%	0.8%	0.2%	0.2%
Ages 65-69	0.5%	0.5%	0.0%	0.0%
Age 70+	0.5%	0.5%	0.0%	0.0%

The recommended real salary adjustments will increase the annual average total salary increase from about 5.65% and 5.53% for Miscellaneous and Safety members, respectively to 5.75% and 5.63%.

Please see our June 30, 2002 Experience Analysis Report for details.

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

- Inflation Rate
- Salary Scale

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

As part of our June 30, 2002 analysis we have reviewed real salary increases received by members over the two years ending June 30, 2002. We have also supplemented that data with the two-year experience data we collected for the June 30, 2000 experience study. We recommend those assumptions be used in this valuation.

Setting the Assumption

The Actuarial Standards Board has specified the following data be considered in setting the salary increase assumptions (Section 3.7 of SOP 27):

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

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

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

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

Real Salary Increases

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

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

Real Across-the-Board Salary Increases

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

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

As part of our analysis, we monitor the Bureau of Labor Statistics Employment Cost Index (ECI). The ECI was developed in the early 1970's to provide wage growth data free from the

influence of employment shifts among industries and occupations. The ECI was expanded to include a separate index for state and local governments in 1981.

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

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

Merit and Longevity Salary Increases

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

The following table summarizes the total salary increase assumptions (merit and longevity plus inflation) adopted by the Board as part of our June 30, 2002 experience analysis.

Age Band	Miscellaneous Members Average Annual Increase	Safety Members Average Annual Increase
Ages 20–24	5.0%	4.3%
Ages 25–29	3.7%	3.3%
Ages 30–34	2.9%	2.2%
Ages 35–39	2.3%	1.1%
Ages 40–44	2.0%	1.1%
Ages 45–49	1.6%	0.9%
Ages 50–54	1.2%	0.8%
Ages 55–59	1.0%	0.7%
Ages 60–64	0.8%	0.2%
Ages 65–69	0.5%	0.0%
Ages 70+	0.5%	0.0%

Noneconomic Actuarial Assumptions

General

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

The noneconomic assumptions were reviewed at the time of the June 30, 2002 experience investigation. Adjustments to the current assumptions were based upon a determination of the likelihood that the most recent experience could be produced as merely a statistical variation of the current assumptions.

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

Components

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

Components 1 through 5 represent the probabilities of separation from active service due to various causes. Component 6 represents the length of time members will live after retirement. See Appendix B for details of assumptions used.

Separation from Active Service

In the June 30, 2002 experience study, an analysis was carried out to determine the probability of members terminating from active service for various causes. The probabilities developed in that study are used as the basis of determining costs in this valuation.

Mortality Basis for Members' Basic Contribution Rates

We have calculated member contribution rates utilizing a sex-independent mortality basis under Section 31676.11 for Miscellaneous members, and Section 31664 for Safety members. The mortality table is the 1994 Group Annuity Mortality Table for males set back three years for Miscellaneous members and with a one-year setback for Safety members. In our opinion, these tables can reasonably be expected to represent the aggregate future mortality for each group and provide an adequate and equitable mortality basis for determining member contribution rates.

Actuarial Valuation Methods

Actuarial Funding Method

Responsibility of the Actuary

A retirement system is a long term proposition. It contains benefit promises that extend many decades into the future. The fiduciaries responsible for funding the 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 (or rate credit in the case of a negative unfunded actuarial accrued liability) 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 (credits) are scheduled to increase at the annual inflation rate of 4.25% along with expected payroll. The currently negative UAAL is being recognized over a 16-year "rolling" (non-decreasing) period effective June 30, 2002.

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

A 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 Miscellaneous members and Safety members, respectively. The basic contribution rate is determined so that the accumulation of a member's basic contributions made until a certain age will be sufficient to fund an annuity at that age that is equal to 1/120 of Final Average Salary for Miscellaneous members (1/100 for Safety members). That age is 55 for Miscellaneous members and 50 for Safety members. It is assumed that contributions are made annually at the same rate, starting at entry age. In addition to their basic contributions, members pay for up to one-half of the total contributions necessary to fund their cost-of-living benefits limited to a "COL cap". The COL cap is derived from pre-1997 employee contributions. Accumulation includes annual crediting of interest at the assumed investment earnings rate.

Actuarial Value of Assets

Background

Under the Entry Age Normal Actuarial Funding Method, a calculation is made to determine what the value of Association assets would be on the valuation date if normal costs and member contributions had been paid continuously from each member's entry age, with interest accumulated, in accord with current assumptions. 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 is especially important for employers with limited budgetary flexibility, such as governmental entities.

Determination of Actuarial Value of Assets

The Retirement board uses a smoothing method to value the Association's assets for purposes of calculating the required contribution rates. Under this approach, 20% of the deviation of total return from the 8.25% return target is recognized in any one-year.

"The Board has restricted the Actuarial Value of Assets to 80–120% of Market Value of Assets. When the Actuarial Value exceeds 120%(or is less than 80%) of Market Value, the full amount of loss (or gain) will be recognized immediately until the Actuarial Value is again in the 80–120% corridor. Please note that the current Actuarial Value is very near to 120% of Market Value and could be outside the corridor at the next valuation.

Following is the calculation of the Actuarial Value of Assets.

Actuarial Value of Assets
As of June 30, 2002

Fiscal Year Ending	County Contributions	Member Contributions	Total Contributions	Total Benefits	Market Value	Average Value	(1) Total Market Return (Net)	(2) Expected Market Return (Net)	(1-2) Investment Gain (Loss)	Deferred Factor	Deferred Return
1998-99	16,446,218	6,860,820	23,307,038	32,000,432	870,921,942	800,378,085	79,950,472	66,031,192	13,919,280	0.2	2,783,856
1999-00	18,399,413	7,102,424	25,501,837	36,071,898	956,103,376	871,000,728	95,751,495	71,857,560	23,893,935	0.4	9,557,574
2000-01	18,064,245	7,324,467	25,388,712	38,936,735	911,123,573	954,447,512	(31,431,780)	78,741,920	(110,173,700)	0.6	(66,104,220)
2001-02	21,985,559	8,316,789	30,302,348	45,437,094	833,821,520	909,123,622	(62,167,307)	75,002,699	(137,170,006)	0.8	(109,736,005)

1. Total deferred return	$(163,498,795)
2. Market Value	833,821,520
3. Smoothed Market Value (Item 2 - Item 1)	997,320,315
4. Corridor Limit	
a. 80% of Net Market Value	667,057,216
b. 120% of Net Market Value	1,000,585,824
5. Actuarial Value (item 3 after corridor applied)	997,320,315
6. Reserves at Market Value	833,821,520
7. Actuarial Value ratio (Item 5 / Item 2.)	1.196084

	Market Value	Health Ins. Reserve	Market Value Net of Health Ins. Reserve	Actuarial Value
Marin County and Special Districts	$ 595,099,742	$ -	$ 595,099,742	$ 711,789,280
City of San Rafael	$ 165,569,076	$ 6,246,927	$ 159,322,149	$ 190,562,674
Novato Fire Protection District	$ 73,152,702	$ -	$ 73,152,702	$ 87,496,776
Total	$ 833,821,520	$ 6,246,927	$ 827,574,593	$ 989,848,730

Recognition of Deferred Return	
Valuation Date	Amount To Be Recognized
6/30/2003	(41,906,098)
6/30/2004	(44,689,954)
6/30/2005	(49,468,741)
6/30/2006	(27,434,001)
Total	(163,498,795)

Actuarial Valuation Results

Employer and Member Contribution Rates

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

Table 10
Contribution Rates and
Estimated Annual Contributions

Valuation Basis (Inflation/Investment Return)	Employer Contributions		Member Contributions	
	Rate	Annual Amount*	Rate	Annual Amount*
Current Rates (4.25%/8.25%)	7.52%	$ 2,047,000	9.04%	$ 2,460,000
Recommended Rates (4.25%/8.25%)	11.35%	$ 3,090,000	9.14%	$ 2,489,000

* Based on total annual salaries as of July 1, 2002 of $27,223,000.

Recommendation

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

Explanation of Changes in Actuarial Values

Employer Contribution Rate

The average employer contribution rate increased from 7.52% to 11.35% due to the following causes:

	% of Payroll		Dollar Impact
Salary increases more than expected	0.54%	$	147,000
Retiree COLA more than expected	0.06%	$	16,300
Investment loss	2.06%	$	560,800
Reduction in normal cost credit due to increase in payroll over 4.25%	0.08%	$	21,800
Retain amortization period at 16 years	0.05%	$	13,600
Ad-hoc COLA granted by Retirement Board	0.08%	$	21,800
Assumption Changes	0.79%	$	215,100
Other (Gains)/Losses	0.17%	$	46,300
Total	3.83%	$	1,042,000

Explanation of Changes

Salary Increase More than Expected - Average salary increase for continuing actives was higher than what was expected by the current salary increase assumption.

Retiree Cola - Average COLA benefit for continuing retirees was 3.0%, which is more than the 2.75% expected.

Investment loss - the rate of return on the Association's actuarial value of assets was 4.73% resulting in a loss of $6.8 million.

Reduction in normal cost credit due to increase in payroll over 4.25% - The City's active payroll as of June 30, 2002 increased 6.1% over the June 30, 2001 payroll compared to 4.25% expected. This results in a greater dilution of the City's surplus assets as a percentage of payroll, hence a smaller rate credit.

Retain amortization period at 16 years - The City's UAAL amortization period is fixed at 16 years. This produces a constant rate credit only if the City's surplus assets grow at 8.25% and payroll grows at 4.25%. If surplus shrinks, then a rate increase is necessary to retain the 16 year amortization period.

Ad-hoc COLA granted by Retirement Board - The Retirement Board granted a supplemental cost of living increase for eligible retirees who lost more than 20% of their purchasing power.

Assumption Change - Change in assumptions as a result of our June 30, 2002 experience analysis.

Other (Gains)/Losses - Other (gains)/losses from miscellaneous sources, such as deviation of actual experience from actuarial assummption. Since the City's pension plan covers relatively few employees, it is anticipated that the City will experience some other (gains)/losses in any particular year. The following is a history of the City's other (gains)/losses during the last five years:

Valuation Date	Other (Gains)/Losses
6/30/02	0.17%
6/30/01	-0.86%
6/30/00	0.02%
6/30/99	-2.16%
6/30/98	-2.32%

Member Contribution Rates

Member contribution rates changed from 9.04% to 9.14%, due to change in salary scale as a result from our June 30, 2002 experience analysis.

Table 11
City of San Rafael
Member Contribution Rate Detail

Current Rates*

Miscellaneous			Safety		
Basic	COL	Total	Basic	COL	Total
6.85%	1.23%	8.08%	7.76%	2.42%	10.18%

Recommended Rates*

Miscellaneous			Safety		
Basic	COL	Total	Basic	COL	Total
6.93%	1.23%	8.16%	7.86%	2.42%	10.28%

* Illustrative rates for average employees with entry age of 36 (Miscellaneous Member) and 27 (Safety Member).

See Appendix D for detailed rates by entry age.

Table 12
City of San Rafael
Employer Contribution Rate Detail

Current Rates

	Miscellaneous		Safety	
	Contribution Rate	Contribution Amount	Contribution Rate	Contribution Amount
Normal Cost	10.22%	$ 1,486,000	13.51%	$ 1,714,000
UAAL	-2.81%	$ (409,000)	-5.86%	$ (743,000)
Total	7.41%	$ 1,077,000	7.65%	$ 971,000
		Aggregate	7.52%	

Recommended Rates

	Miscellaneous		Safety	
	Contribution Rate	Contribution Amount	Contribution Rate	Contribution Amount
Normal Cost	10.44%	$ 1,518,000	14.65%	$ 1,858,000
UAAL	-0.67%	$ (97,000)	-1.49%	$ (189,000)
Total	9.77%	$ 1,421,000	13.16%	$ 1,669,000
		Aggregate	11.35%	

Note: Contribution amounts are based on total annual salaries as of the valuation date of $14,538,000 for Miscellaneous members and $12,685,000 for Safety members.

Funding Status

Evaluation of Funding Status

Background

The evaluation of the City of San Rafael's funding status under MCERA is simply the comparison of its actuarial value of assets to a target value of assets. There is one funding status measure calculated for the Association:

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

This section of the report provides the Association's funding status under this measure in an exhibit which summarizes the Association's funding history.

Funding Progress – GASB No. 25

The GASB issued two statements; Accounting for Pensions by State and Local Government Employers (GASB Statement No. 27); and Financial Reporting for Defined Benefit and Note Disclosures for Defined Contribution Plans (GASB Statement No. 25). Both of these statements require funding status to be measured based upon the actuarial funding method adopted by the Board of Retirement, i.e., for MCERA, 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 for each of the last six valuations are:

Actuarial Valuation Date	Actuarial Value of Assets * (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)
6/30/1997	$114,506,000	$110,198,000	-$4,307,000	104%	$16,928,000	(25.3)%
6/30/1998	$131,142,000	$124,239,000	-$6,903,000	106%	$20,361,000	(33.9%)
6/30/1999	$151,466,000	$134,247,000	-$17,219,000	113%	$23,293,000	(73.92%)
6/30/2000	$171,663,000	$156,806,000	-$14,857,000	109%	$23,372,000	(63.6)%
6/30/2001	$186,085,000	$172,939,000	-$13,146,000	108%	$25,650,000	(51.3)%
6/30/2002	$190,563,000	$187,118,000	-$3,445,000	102%	$27,223,000	(12.7)%

* Excludes accounts payable and retiree health insurance reserves after June 30, 1994.

Actuarial Balance Sheet

Actuarial Balance Sheet

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

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

Association assets are equal to the sum of:

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

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

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

Member Category	Contribution Rate	Annual Amount
Miscellaneous	10.44%	$ 1,518,000
Safety	14.65%	$ 1,858,000

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

2. The Unfunded Actuarial Accrued Liability: The portion of the present value of future employer contributions which will not be funded by the future Entry Age Normal Cost contributions is the Unfunded Actuarial Accrued Liability (UAAL). The UAAL arises from the accumulated value of prior contributions that can be more or less than the Normal Cost accumulated at the actuarial interest rate. 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. A negative UAAL operates as a credit against normal cost.

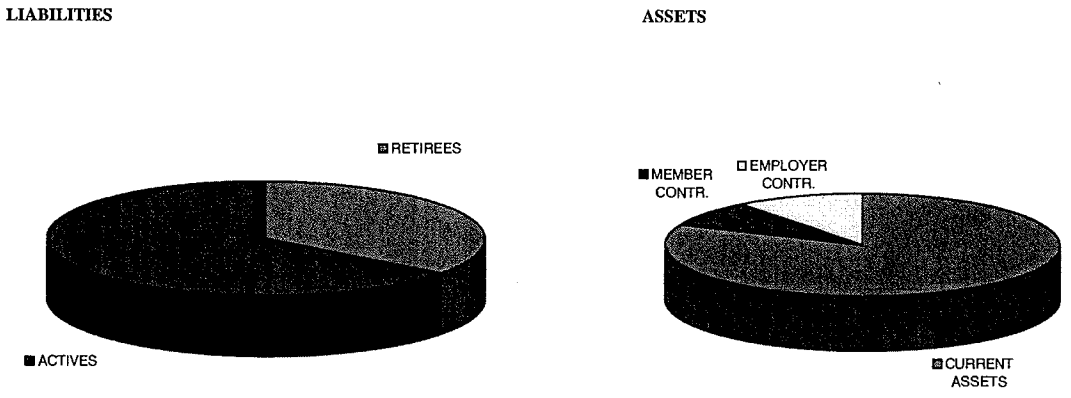
For the current year, we have determined that the appropriate amounts needed to fund the UAAL are:

Member Category	Contribution Rate	Annual Amount*
Miscellaneous	(0.67)%	$ (97,000)
Safety	(1.49)%	$ (189,000)

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

The following chart illustrates the breakdown of Balance Sheet assets and liabilities of the Association. It shows that 35% of the Association's liabilities are due to the retired members and their beneficiaries and 65% to active members. About 81% of System assets consist of current available assets with 19% consisting of future contributions from the employer and the members.

Chart 9
ACTUARIAL BALANCE SHEET
AS OF JUNE 30, 2002



City of San Rafael
Actuarial Balance Sheet

(As of June 30, 2002)

ASSETS

		Basic	COL	Total
1	Total Assets at Actuarial Value	$147,139,266	$43,423,408	$190,562,674
2	Present Value of Future Member Contributions	$15,397,834	$3,648,377	$19,046,211
3	Present Value of Future Employer Contributions on Account of:			
	a) Normal Cost	$17,955,990	$6,515,427	$24,471,417
	b) Unfunded Actuarial Accrued Liability	($2,659,797)	($784,952)	($3,444,749)
4	Total Actuarial Assets	$177,833,293	$52,802,261	$230,635,554

LIABILITIES

5	Present Value of Retirement Allowances Payable to Present Retired Members	$63,547,078	$18,050,951	$81,598,029
6	Present Value of Retirement Allowances to be Granted for:			
	a) Service Retirement	$94,977,396	$28,684,967	$123,662,363
	b) Disability Retirement	$16,844,313	$5,488,107	$22,332,420
7	Present Value of Death Benefits to be Granted for:			
	a) Duty Deaths	$595,759	$1,344,016	$1,939,775
	b) Non-duty Death	$1,081,947	($887,067)	$194,880
8	Present Value of Members' Contributions to be Returned Upon Withdrawal Before Retirement	$786,800	$121,286	$908,086
9	Total Actuarial Liabilities	$177,833,293	$52,802,261	$230,635,554

Association Assets

Association Assets

The following combined asset information was developed for Marin County, City of San Rafael and Novato Fire Protection District for the last plan year.

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. Values exclude the health insurance reserve.

	June 30, 2002	June 30, 2001	Percent Change
Actuarial Value	$997,320,315	$966,858,119	3.2%
Market Value	$833,821,520	$911,123,573	-8.5%

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

	Market Value	Actuarial Value
Value of Assets at 6/30/2001	**$911,123,573**	**$966,858,119**
Contributions:		
Employer	21,985,559	21,985,559
Members	8,316,789	8,316,789
Benefits Paid to Participants	45,437,094	45,437,094
Expenses Paid	883,577	883,577
Investment Earnings	(61,283,730)	46,480,519
Value of Assets at 6/30/2002	**$833,821,520**	**$997,320,315**
NET RATE OF RETURN (Net of Expenses)	**-6.84%**	**4.73%**

The 4.73% annualized rate of return on the actuarial value of assets over the last year is less than the 8.25% annual rate assumed. This resulted in an actuarial loss, which caused upward pressure on the budgeted contribution for the City.

ASSOCIATION ACCOUNTING ASSETS, RESERVES AND OTHER LIABILITIES
(For Marin County, City of San Rafael and Novato Fire Protection District)

As of June 30, 2002

Assets		
Cash and Collateral for Securities Loaned		111,329,919
Accounts Receivable		27,311,341
Equities		513,173,332
Debt Securities		204,118,827
Real estate		113,250,000
Short-term Investments		700,513
First Deeds of Trust		13,282
Prepaid Insurance		416,793
Total Assets	**$**	**970,314,007**
Reserves and Liabilities		
Employer Reserves	$	909,264
Employee Reserves		84,125,349
Death Benefit Reserve		2,274,550
Article 15.5 Reserves		1,507,058
Reserve for Pre 7/1/77 San Rafael Retirees		8,412,545
Retired Employees Reserves		219,941,294
Cost of Living Adjustment Reserves		134,067,318
Health insurance Reserves		6,246,927
Contingency and other Reserves		41,691,076
Unrestricted Reserves		334,646,139
Due to Brokers for Securities Purchased		86,591,252
Security Deposits		766,031
Collateral Held for Securities Loaned		48,501,207
Other Payables		633,997
Deferred Employer Contributions		-
Total Liabilities	**$**	**970,314,007**

Appendices

A. Major Provisions of the Pension Plan

Benefit Sections 31676.11 and 31664
of the 1937 County Act

Briefly summarized below are the major provisions of the County Employees Retirement Law of 1937, as amended through June 30, 2002 that are applicable to the City of San Rafael members covered under the Marin County Employee's Retirement Association.

Membership

Miscellaneous employees are entitled to benefits under Section 31676.11 and Safety employees are entitled to benefits under Section 31664.

Final Average Salary (FAS)

Final average salary is defined as the highest 12 consecutive months of compensation earnable.

Return of Contributions

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

Service Retirement Benefit

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

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

Age	Miscellaneous	Safety
50	1.242%	2.000%
55	1.667%	2.620%
60	2.182%	2.620%
65 and over	2.611%	2.620%

Disability Benefit

Members with five 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 one-third of FAS, the benefit is increased by the same percentage of FAS for the years which would have been credited to age 65 (age 55 for Safety members), but the total benefit in this case cannot be more than one-third of FAS.

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

Death Benefit — Before Retirement

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

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

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

Death Benefit — After Retirement

If a member dies after retirement, a lump sum amount of $5,000 is paid to the beneficiary or estate.

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

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

Maximum Benefit

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

Cost of Living

The maximum increase in retirement allowance is 3% per year. The cost of living increases are based on the change in the Consumer Price Index for the calendar year prior to the April 1 effective date.

Contribution Rates

Articles 6 and 6.8 of the 1937 Act define the methodology to be used in the calculation of member basic contribution rates for Miscellaneous and Safety members, respectively. The basic contribution rate is determined such that annual contributions made at that rate from the beginning of membership will fund an annuity equal to a percentage of Final Average Salary (1/120 for Miscellaneous members; 1/100 for Safety members) when the member reaches a set age. That age is 55 for Miscellaneous members and 50 for Safety members. In addition to their basic contributions, members pay for up to one-half of the total contributions necessary to fund their cost-of-living benefits, limited to a "COL cap". The COL cap is derived from pre-1997 employee contributions. Accumulation includes annual crediting of interest at the assumed investment earnings rate.

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

B. Summary of Assumptions and Funding Method

Summary of Assumptions and Funding Method

Assumptions	
Valuation Interest Rate	8.25%
Inflation Rate	4.25%
Post-Retirement Mortality	
(a) Service	
Males	1994 Male Group Annuity Mortality Table* with a one-year setback
Females	1994 Female Group Annuity Mortality Table* with no setback
Safety	1994 Male Group Annuity Mortality Table* with a one-year setback
(b) Disability	
Miscellaneous	1981 Miscellaneous Disability Mortality Table with a two-year setback
Safety	1981 Safety Disability Mortality Table with a one-year setback
(c) For Employee Contribution Rate Purposes	
Miscellaneous	1994 Male Group Annuity Mortality Table* with a three-year setback
Safety	1994 Male Group Annuity Mortality Table* with a one-year setback
Pre-Retirement Mortality	Based upon the 6/30/2002 Experience Analysis
Withdrawal Rates	Based upon the 6/30/2002 Experience Analysis
Disability Rates	Based upon the 6/30/2002 Experience Analysis
Service Retirement Rates	Based upon the 6/30/2002 Experience Analysis
Salary Scales	Total increases of 5.75% and 5.63% per year for Miscellaneous and Safety members, respectively, reflecting 4.25% for inflation and approximately 1.50% (1.38% for Safety) for merit and longevity

*Also referred to as the UP-94 Mortality Table.

Assets	Valued at Actuarial Value as described in the Actuarial Valuation Methods section. Assets are allocated between Miscellaneous and Safety in proportion to Actuarial Accrued Liability
Percentage of Members Married at Retirement	80% of male and 60% of female members are assumed to be married at retirement. Wives are assumed to be three years younger than their husbands
Terminated Members Eligible for Reciprocal Benefits	60%
Post-Retirement COLA Assumed in Valuation	2.75%

Funding Method

The County's liability is being funded on the Entry Age Normal Method. The amortization period for the Unfunded Actuarial Accrued Liability is 16 years from the June 30, 2002 valuation date. The 16-year period will remain unchanged as long as the unfunded actuarial accrued liability remains negative.

Note that the actuarial value of assets includes the Association's Contingency and Unrestricted Reserves. It is assumed that the values of these reserves are available to provide for the Association's retirement, disability and death liabilities developed in this actuarial valuation. If those reserves are used to provide for other benefits, the Association will experience an actuarial loss, and employer contribution rates will increase.

Exhibit I

NEW PROBABILITIES OF SEPARATION PRIOR TO RETIREMENT
MISCELLANEOUS MALE MEMBERS

Age	withdrawal 0-1	withdrawal 1-2	withdrawal 2-3	withdrawal 3-4	withdrawal 4-5	withdrawal 5+	deferred	ordinary disab.	duty disability	ordinary death	duty death	retirement
<= 20	0.1200	0.0900	0.0550	0.0500	0.0400	0.0300	0.0300	0.0000	0.0004	0.0005	0.0000	0.0000
21	0.1200	0.0900	0.0550	0.0500	0.0400	0.0300	0.0300	0.0000	0.0004	0.0006	0.0000	0.0000
22	0.1200	0.0900	0.0550	0.0500	0.0400	0.0300	0.0300	0.0000	0.0004	0.0006	0.0000	0.0000
23	0.1200	0.0900	0.0550	0.0500	0.0400	0.0300	0.0300	0.0000	0.0004	0.0006	0.0000	0.0000
24	0.1200	0.0900	0.0550	0.0500	0.0400	0.0300	0.0300	0.0000	0.0004	0.0007	0.0000	0.0000
25	0.1200	0.0900	0.0550	0.0500	0.0400	0.0300	0.0300	0.0001	0.0005	0.0007	0.0000	0.0000
26	0.1200	0.0900	0.0550	0.0500	0.0400	0.0300	0.0300	0.0001	0.0006	0.0007	0.0000	0.0000
27	0.1200	0.0900	0.0550	0.0500	0.0400	0.0300	0.0300	0.0001	0.0007	0.0007	0.0000	0.0000
28	0.1200	0.0900	0.0550	0.0500	0.0400	0.0300	0.0300	0.0001	0.0008	0.0008	0.0000	0.0000
29	0.1200	0.0900	0.0550	0.0500	0.0400	0.0300	0.0300	0.0001	0.0009	0.0008	0.0000	0.0000
30	0.1200	0.0900	0.0550	0.0500	0.0400	0.0300	0.0300	0.0002	0.0010	0.0009	0.0000	0.0000
31	0.1200	0.0900	0.0550	0.0500	0.0400	0.0300	0.0300	0.0002	0.0010	0.0009	0.0000	0.0000
32	0.1200	0.0900	0.0550	0.0500	0.0400	0.0300	0.0300	0.0002	0.0010	0.0009	0.0000	0.0000
33	0.1200	0.0900	0.0550	0.0500	0.0400	0.0300	0.0300	0.0002	0.0010	0.0009	0.0000	0.0000
34	0.1200	0.0900	0.0550	0.0500	0.0400	0.0300	0.0300	0.0002	0.0010	0.0009	0.0000	0.0000
35	0.1200	0.0900	0.0550	0.0500	0.0400	0.0300	0.0270	0.0003	0.0011	0.0009	0.0000	0.0000
36	0.1200	0.0900	0.0550	0.0500	0.0400	0.0300	0.0270	0.0003	0.0012	0.0009	0.0000	0.0000
37	0.1200	0.0900	0.0550	0.0500	0.0400	0.0300	0.0270	0.0003	0.0013	0.0010	0.0000	0.0000
38	0.1200	0.0900	0.0550	0.0500	0.0400	0.0300	0.0270	0.0004	0.0014	0.0010	0.0000	0.0000
39	0.1200	0.0900	0.0550	0.0500	0.0400	0.0300	0.0270	0.0004	0.0015	0.0011	0.0000	0.0000
40	0.0900	0.0900	0.0550	0.0500	0.0400	0.0150	0.0270	0.0005	0.0016	0.0012	0.0000	0.0000
41	0.0900	0.0900	0.0550	0.0500	0.0400	0.0150	0.0270	0.0005	0.0017	0.0012	0.0000	0.0000
42	0.0900	0.0900	0.0550	0.0500	0.0400	0.0150	0.0270	0.0006	0.0018	0.0013	0.0000	0.0000
43	0.0900	0.0900	0.0550	0.0500	0.0400	0.0150	0.0270	0.0007	0.0019	0.0015	0.0000	0.0000
44	0.0900	0.0900	0.0550	0.0500	0.0400	0.0150	0.0270	0.0008	0.0020	0.0016	0.0000	0.0000
45	0.0900	0.0700	0.0550	0.0500	0.0400	0.0100	0.0170	0.0009	0.0021	0.0017	0.0000	0.0000
46	0.0900	0.0700	0.0550	0.0500	0.0400	0.0100	0.0130	0.0010	0.0022	0.0019	0.0000	0.0000
47	0.0900	0.0700	0.0550	0.0500	0.0400	0.0100	0.0130	0.0012	0.0023	0.0020	0.0000	0.0000
48	0.0900	0.0700	0.0550	0.0500	0.0400	0.0100	0.0120	0.0014	0.0024	0.0023	0.0000	0.0000
49	0.0900	0.0700	0.0550	0.0500	0.0400	0.0100	0.0120	0.0016	0.0025	0.0025	0.0000	0.0000
50	0.0700	0.0700	0.0550	0.0500	0.0400	0.0000	0.0120	0.0018	0.0026	0.0028	0.0000	0.0448
51	0.0700	0.0700	0.0550	0.0500	0.0400	0.0000	0.0120	0.0020	0.0027	0.0031	0.0000	0.0221
52	0.0700	0.0700	0.0550	0.0500	0.0400	0.0000	0.0120	0.0022	0.0028	0.0035	0.0000	0.0186
53	0.0700	0.0700	0.0550	0.0500	0.0400	0.0000	0.0120	0.0025	0.0029	0.0039	0.0000	0.0192
54	0.0700	0.0700	0.0550	0.0500	0.0400	0.0000	0.0120	0.0028	0.0030	0.0043	0.0000	0.0200
55	0.0700	0.0700	0.0550	0.0500	0.0400	0.0000	0.0110	0.0031	0.0031	0.0048	0.0000	0.0340
56	0.0700	0.0700	0.0550	0.0500	0.0400	0.0000	0.0110	0.0034	0.0032	0.0053	0.0000	0.0490
57	0.0700	0.0700	0.0550	0.0500	0.0400	0.0000	0.0110	0.0038	0.0034	0.0060	0.0000	0.0865
58	0.0700	0.0700	0.0550	0.0500	0.0400	0.0000	0.0110	0.0042	0.0036	0.0068	0.0000	0.1121
59	0.0700	0.0700	0.0550	0.0500	0.0400	0.0000	0.0110	0.0047	0.0038	0.0076	0.0000	0.1650
60	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0110	0.0051	0.0041	0.0086	0.0000	0.3000
61	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0110	0.0056	0.0042	0.0097	0.0000	0.1489
62	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0110	0.0061	0.0043	0.0109	0.0000	0.3000
63	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0110	0.0067	0.0044	0.0123	0.0000	0.2121
64	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0110	0.0073	0.0045	0.0139	0.0000	0.2656
65	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0079	0.0046	0.0156	0.0000	0.5000
66	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0087	0.0047	0.0175	0.0000	0.3727
67	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0093	0.0048	0.0194	0.0000	0.3951
68	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0100	0.0049	0.0214	0.0000	0.3592
69	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0108	0.0050	0.0234	0.0000	0.3592
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

NEW PROBABILITIES OF SEPARATION PRIOR TO RETIREMENT
MISCELLANEOUS FEMALE MEMBERS

Age	withdrawal 0-1	withdrawal 1-2	withdrawal 2-3	withdrawal 3-4	withdrawal 4-5	withdrawal 5+	deferred	ordinary disab.	duty disability	ordinary death	duty death	retirement
<= 20	0.1500	0.1350	0.0600	0.0600	0.0500	0.0300	0.0475	0.0000	0.0005	0.0003	0.0000	0.0000
21	0.1500	0.1350	0.0600	0.0600	0.0500	0.0300	0.0475	0.0000	0.0005	0.0003	0.0000	0.0000
22	0.1500	0.1350	0.0600	0.0600	0.0500	0.0300	0.0475	0.0000	0.0005	0.0003	0.0000	0.0000
23	0.1500	0.1350	0.0600	0.0600	0.0500	0.0300	0.0475	0.0000	0.0005	0.0003	0.0000	0.0000
24	0.1500	0.1350	0.0600	0.0600	0.0500	0.0300	0.0475	0.0000	0.0005	0.0003	0.0000	0.0000
25	0.1500	0.1350	0.0600	0.0600	0.0500	0.0300	0.0475	0.0001	0.0010	0.0003	0.0000	0.0000
26	0.1500	0.1350	0.0600	0.0600	0.0500	0.0300	0.0475	0.0001	0.0010	0.0003	0.0000	0.0000
27	0.1500	0.1350	0.0600	0.0600	0.0500	0.0300	0.0475	0.0001	0.0010	0.0003	0.0000	0.0000
28	0.1500	0.1350	0.0600	0.0600	0.0500	0.0300	0.0475	0.0001	0.0010	0.0003	0.0000	0.0000
29	0.1500	0.1350	0.0600	0.0600	0.0500	0.0300	0.0475	0.0001	0.0010	0.0003	0.0000	0.0000
30	0.1500	0.1350	0.0600	0.0600	0.0500	0.0300	0.0465	0.0002	0.0015	0.0004	0.0000	0.0000
31	0.1500	0.1350	0.0600	0.0600	0.0500	0.0300	0.0465	0.0002	0.0015	0.0004	0.0000	0.0000
32	0.1500	0.1350	0.0600	0.0600	0.0500	0.0300	0.0465	0.0002	0.0015	0.0004	0.0000	0.0000
33	0.1500	0.1350	0.0600	0.0600	0.0500	0.0300	0.0465	0.0002	0.0015	0.0004	0.0000	0.0000
34	0.1500	0.1350	0.0600	0.0600	0.0500	0.0300	0.0465	0.0002	0.0015	0.0004	0.0000	0.0000
35	0.1500	0.1100	0.0600	0.0600	0.0500	0.0250	0.0375	0.0003	0.0020	0.0005	0.0000	0.0000
36	0.1500	0.1100	0.0600	0.0600	0.0500	0.0250	0.0375	0.0003	0.0020	0.0005	0.0000	0.0000
37	0.1500	0.1100	0.0600	0.0600	0.0500	0.0250	0.0375	0.0003	0.0020	0.0005	0.0000	0.0000
38	0.1500	0.1100	0.0600	0.0600	0.0500	0.0250	0.0375	0.0004	0.0020	0.0005	0.0000	0.0000
39	0.1500	0.1100	0.0600	0.0600	0.0500	0.0250	0.0375	0.0004	0.0020	0.0006	0.0000	0.0000
40	0.1500	0.0900	0.0600	0.0600	0.0500	0.0175	0.0275	0.0005	0.0025	0.0008	0.0000	0.0000
41	0.1500	0.0900	0.0600	0.0600	0.0500	0.0175	0.0275	0.0005	0.0026	0.0008	0.0000	0.0000
42	0.1500	0.0900	0.0600	0.0600	0.0500	0.0175	0.0275	0.0006	0.0027	0.0009	0.0000	0.0000
43	0.1500	0.0900	0.0600	0.0600	0.0500	0.0175	0.0275	0.0007	0.0028	0.0009	0.0000	0.0000
44	0.1500	0.0900	0.0600	0.0600	0.0500	0.0175	0.0275	0.0008	0.0029	0.0010	0.0000	0.0000
45	0.1000	0.0600	0.0600	0.0600	0.0500	0.0100	0.0275	0.0009	0.0030	0.0010	0.0000	0.0000
46	0.1000	0.0600	0.0600	0.0600	0.0500	0.0100	0.0275	0.0010	0.0031	0.0011	0.0000	0.0000
47	0.1000	0.0600	0.0600	0.0600	0.0500	0.0100	0.0275	0.0012	0.0032	0.0012	0.0000	0.0000
48	0.1000	0.0600	0.0600	0.0600	0.0500	0.0100	0.0275	0.0014	0.0033	0.0013	0.0000	0.0000
49	0.1000	0.0600	0.0600	0.0600	0.0500	0.0100	0.0225	0.0016	0.0034	0.0014	0.0000	0.0000
50	0.1000	0.0600	0.0600	0.0500	0.0500	0.0000	0.0225	0.0018	0.0035	0.0015	0.0000	0.0676
51	0.1000	0.0600	0.0600	0.0500	0.0500	0.0000	0.0200	0.0020	0.0035	0.0017	0.0000	0.0240
52	0.1000	0.0600	0.0600	0.0500	0.0500	0.0000	0.0180	0.0022	0.0035	0.0019	0.0000	0.0210
53	0.1000	0.0600	0.0600	0.0500	0.0500	0.0000	0.0150	0.0025	0.0035	0.0021	0.0000	0.0250
54	0.1000	0.0600	0.0600	0.0500	0.0500	0.0000	0.0150	0.0028	0.0035	0.0022	0.0000	0.0291
55	0.1000	0.0600	0.0600	0.0500	0.0500	0.0000	0.0100	0.0031	0.0035	0.0025	0.0000	0.0387
56	0.1000	0.0600	0.0600	0.0500	0.0500	0.0000	0.0100	0.0034	0.0035	0.0028	0.0000	0.0694
57	0.1000	0.0600	0.0600	0.0500	0.0500	0.0000	0.0100	0.0038	0.0035	0.0031	0.0000	0.0750
58	0.1000	0.0600	0.0600	0.0500	0.0500	0.0000	0.0100	0.0042	0.0035	0.0036	0.0000	0.0800
59	0.1000	0.0600	0.0600	0.0500	0.0500	0.0000	0.0100	0.0047	0.0035	0.0042	0.0000	0.0850
60	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0100	0.0051	0.0035	0.0048	0.0000	0.1219
61	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0100	0.0056	0.0035	0.0055	0.0000	0.1655
62	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0100	0.0061	0.0035	0.0063	0.0000	0.2000
63	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0100	0.0067	0.0035	0.0072	0.0000	0.2000
64	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0100	0.0073	0.0035	0.0082	0.0000	0.2000
65	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0079	0.0035	0.0093	0.0000	0.4000
66	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0087	0.0035	0.0104	0.0000	0.2500
67	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0093	0.0035	0.0116	0.0000	0.2500
68	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0100	0.0035	0.0126	0.0000	0.2500
69	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0108	0.0035	0.0137	0.0000	0.2500
70	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000

NEW PROBABILITIES OF SEPARATION PRIOR TO RETIREMENT
SAFETY MEMBERS

Age	withdrawal 0-1	withdrawal 1-2	withdrawal 2-3	withdrawal 3-4	withdrawal 4-5	withdrawal 5+	deferred	ordinary disab.	duty disability	ordinary death	duty death	retirement (2% at 50)
<= 20	0.1000	0.0500	0.0500	0.0500	0.0400	0.0113	0.0206	0.0002	0.0011	0.0000	0.0004	0.0000
21	0.1000	0.0500	0.0500	0.0500	0.0400	0.0113	0.0198	0.0002	0.0012	0.0000	0.0004	0.0000
22	0.1000	0.0500	0.0500	0.0500	0.0400	0.0113	0.0190	0.0002	0.0014	0.0000	0.0004	0.0000
23	0.1000	0.0500	0.0500	0.0500	0.0400	0.0113	0.0203	0.0002	0.0014	0.0000	0.0004	0.0000
24	0.1000	0.0500	0.0500	0.0500	0.0400	0.0113	0.0214	0.0003	0.0015	0.0000	0.0004	0.0000
25	0.1000	0.0450	0.0400	0.0400	0.0400	0.0113	0.0224	0.0003	0.0015	0.0000	0.0004	0.0000
26	0.1000	0.0450	0.0400	0.0400	0.0400	0.0113	0.0232	0.0003	0.0015	0.0000	0.0004	0.0000
27	0.1000	0.0450	0.0400	0.0400	0.0400	0.0113	0.0237	0.0004	0.0014	0.0000	0.0004	0.0000
28	0.1000	0.0450	0.0400	0.0400	0.0400	0.0113	0.0282	0.0004	0.0022	0.0000	0.0004	0.0000
29	0.1000	0.0450	0.0400	0.0400	0.0400	0.0113	0.0321	0.0004	0.0029	0.0000	0.0004	0.0000
30	0.0800	0.0450	0.0400	0.0400	0.0400	0.0075	0.0353	0.0005	0.0036	0.0000	0.0004	0.0000
31	0.0800	0.0450	0.0400	0.0400	0.0400	0.0075	0.0380	0.0005	0.0043	0.0000	0.0004	0.0000
32	0.0800	0.0450	0.0400	0.0400	0.0400	0.0075	0.0399	0.0005	0.0050	0.0000	0.0005	0.0000
33	0.0800	0.0450	0.0400	0.0400	0.0400	0.0075	0.0368	0.0007	0.0064	0.0000	0.0005	0.0000
34	0.0800	0.0450	0.0400	0.0400	0.0400	0.0075	0.0338	0.0007	0.0079	0.0000	0.0005	0.0000
35	0.0800	0.0600	0.0500	0.0400	0.0400	0.0056	0.0341	0.0007	0.0055	0.0000	0.0005	0.0000
36	0.0800	0.0600	0.0500	0.0400	0.0400	0.0056	0.0309	0.0007	0.0062	0.0000	0.0005	0.0000
37	0.0800	0.0600	0.0500	0.0400	0.0400	0.0056	0.0242	0.0008	0.0070	0.0000	0.0006	0.0000
38	0.0800	0.0600	0.0500	0.0400	0.0400	0.0056	0.0232	0.0009	0.0089	0.0000	0.0006	0.0000
39	0.0800	0.0600	0.0500	0.0400	0.0400	0.0056	0.0191	0.0014	0.0103	0.0000	0.0006	0.0000
40	0.0800	0.0600	0.0500	0.0400	0.0400	0.0056	0.0114	0.0016	0.0118	0.0000	0.0006	0.0000
41	0.0800	0.0600	0.0500	0.0400	0.0400	0.0056	0.0103	0.0018	0.0107	0.0000	0.0006	0.0000
42	0.0800	0.0600	0.0500	0.0400	0.0400	0.0056	0.0091	0.0020	0.0078	0.0000	0.0007	0.0064
43	0.0800	0.0600	0.0500	0.0400	0.0400	0.0056	0.0131	0.0022	0.0086	0.0000	0.0007	0.0064
44	0.0800	0.0600	0.0500	0.0400	0.0400	0.0056	0.0154	0.0024	0.0095	0.0000	0.0008	0.0064
45	0.0600	0.0600	0.0500	0.0400	0.0400	0.0056	0.0170	0.0026	0.0114	0.0000	0.0008	0.0377
46	0.0600	0.0600	0.0500	0.0400	0.0400	0.0056	0.0161	0.0028	0.0128	0.0000	0.0008	0.0377
47	0.0600	0.0600	0.0500	0.0400	0.0400	0.0056	0.0136	0.0030	0.0143	0.0000	0.0008	0.0565
48	0.0600	0.0600	0.0500	0.0400	0.0400	0.0056	0.0068	0.0032	0.0155	0.0000	0.0009	0.0545
49	0.0600	0.0600	0.0500	0.0400	0.0400	0.0056	0.0036	0.0034	0.0167	0.0000	0.0011	0.0524
50	0.0600	0.0600	0.0500	0.0400	0.0250	0.0000	0.0027	0.0036	0.0128	0.0000	0.0010	0.0262
51	0.0600	0.0600	0.0500	0.0400	0.0250	0.0000	0.0018	0.0038	0.0111	0.0000	0.0012	0.0251
52	0.0600	0.0600	0.0500	0.0400	0.0250	0.0000	0.0009	0.0040	0.0091	0.0000	0.0013	0.0721
53	0.0600	0.0600	0.0500	0.0400	0.0250	0.0000	0.0009	0.0042	0.0218	0.0000	0.0014	0.0623
54	0.0600	0.0600	0.0500	0.0400	0.0250	0.0000	0.0009	0.0044	0.0359	0.0000	0.0016	0.0525
55	0.0600	0.0600	0.0500	0.0400	0.0250	0.0000	0.0000	0.0046	0.0390	0.0000	0.0018	0.2095
56	0.0600	0.0600	0.0500	0.0400	0.0250	0.0000	0.0000	0.0049	0.0482	0.0000	0.0022	0.1305
57	0.0600	0.0600	0.0500	0.0400	0.0250	0.0000	0.0000	0.0052	0.0581	0.0000	0.0028	0.4000
58	0.0600	0.0600	0.0500	0.0400	0.0250	0.0000	0.0000	0.0055	0.0561	0.0000	0.0034	0.4500
59	0.0600	0.0600	0.0500	0.0400	0.0250	0.0000	0.0000	0.0058	0.0555	0.0000	0.0042	0.5000
60	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000

* Probability of retirement is 100% after the member accrues 100% of final average compensation.

RATIO OF CURRENT COMPENSATION TO COMPENSATION ANTICIPATED AT RETIREMENT AGE

Age	Miscellaneous	Safety
20	0.046	0.096
21	0.051	0.105
22	0.055	0.114
23	0.060	0.123
24	0.066	0.134
25	0.072	0.145
26	0.078	0.156
27	0.084	0.168
28	0.091	0.181
29	0.098	0.194
30	0.105	0.208
31	0.113	0.222
32	0.121	0.237
33	0.130	0.252
34	0.139	0.267
35	0.149	0.283
36	0.159	0.299
37	0.170	0.316
38	0.181	0.333
39	0.192	0.351
40	0.205	0.370
41	0.218	0.389
42	0.232	0.410
43	0.246	0.432
44	0.261	0.455
45	0.277	0.479
46	0.294	0.504
47	0.311	0.530
48	0.329	0.557
49	0.348	0.586
50	0.368	0.616
51	0.389	0.647
52	0.410	0.680
53	0.433	0.715
54	0.456	0.750
55	0.481	0.788
56	0.506	0.827
57	0.533	0.869
58	0.561	0.912
59	0.590	0.955
60	0.621	1.000
61	0.653	
62	0.686	
63	0.721	
64	0.757	
65	0.794	
66	0.832	
67	0.873	
68	0.914	
69	0.956	
70	1.000	

* Merit and longevity scale from 6/30/2002 experience study plus 4.25% inflation.

YEARS OF LIFE EXPECTANCY AFTER SERVICE RETIREMENT
Miscellaneous and Safety Members

YEARS OF LIFE EXPECTANCY AFTER SERVICE RETIREMENT
Miscellaneous and Safety Members

Age	Male	Female	Age	Male	Female
50	30.94	34.24	80	8.46	9.88
51	30.01	33.29	81	7.97	9.30
52	29.09	32.34	82	7.51	8.74
53	28.18	31.40	83	7.07	8.20
54	27.28	30.47	84	6.65	7.68
55	26.38	29.53	85	6.24	7.18
56	25.49	28.61	86	5.86	6.71
57	24.61	27.68	87	5.48	6.25
58	23.74	26.77	88	5.12	5.83
59	22.88	25.86	89	4.78	5.42
60	22.04	24.97	90	4.45	5.05
61	21.20	24.09	91	4.15	4.70
62	20.38	23.22	92	3.87	4.37
63	19.57	22.36	93	3.61	4.07
64	18.78	21.52	94	3.37	3.79
65	18.01	20.69	95	3.15	3.53
66	17.26	19.88	96	2.95	3.28
67	16.53	19.09	97	2.77	3.06
68	15.81	18.30	98	2.61	2.85
69	15.11	17.53	99	2.46	2.65
70	14.43	16.77	100	2.33	2.48
71	13.77	16.01	101	2.21	2.31
72	13.11	15.26	102	2.09	2.16
73	12.48	14.53	103	1.98	2.02
74	11.85	13.81	104	1.87	1.89
75	11.25	13.11	105	1.77	1.78
76	10.66	12.43	106	1.68	1.69
77	10.08	11.76	107	1.61	1.62
78	9.52	11.11	108	1.56	1.57
79	8.98	10.49	109	1.52	1.53
			110	1.49	1.49

Males and Safety: 1994 GAM Table with a 1 year setback
Females: 1994 GAF Table with no setback

YEARS OF LIFE EXPECTANCY AFTER DISABILITY RETIREMENT

YEARS OF LIFE EXPECTANCY AFTER DISABILITY RETIREMENT
Miscellaneous Members

Age	Male & Female	Age	Male & Female	Age	Male & Female
20	40.73	50	22.06	80	7.83
21	39.73	51	21.57	81	7.41
22	38.73	52	21.08	82	7.00
23	37.98	53	20.59	83	6.63
24	37.26	54	20.11	84	6.27
25	36.56	55	19.63	85	5.94
26	35.87	56	19.16	86	5.63
27	35.19	57	18.68	87	5.34
28	34.53	58	18.21	88	5.06
29	33.87	59	17.75	89	4.80
30	33.23	60	17.29	90	4.55
31	32.60	61	16.83	91	4.31
32	31.98	62	16.37	92	4.09
33	31.37	63	15.91	93	3.87
34	30.76	64	15.45	94	3.66
35	30.17	65	14.99	95	3.46
36	29.58	66	14.53	96	3.26
37	29.00	67	14.07	97	3.07
38	28.43	68	13.60	98	2.89
39	27.87	69	13.13	99	2.71
40	27.31	70	12.66	100	2.54
41	26.76	71	12.18	101	2.37
42	26.21	72	11.70	102	2.20
43	25.67	73	11.21	103	2.04
44	25.14	74	10.72	104	1.88
45	24.61	75	10.22	105	1.72
46	24.09	76	9.73	106	1.55
47	23.57	77	9.24	107	1.38
48	23.06	78	8.76	108	1.21
49	22.56	79	8.28	109	1.04
				110	0.88

1981 General Disability Table with a 2 Year Setback

YEARS OF LIFE EXPECTANCY AFTER DISABILITY RETIREMENT

YEARS OF LIFE EXPECTANCY AFTER DISABILITY RETIREMENT
Safety Members

Age	Male & Female	Age	Male & Female	Age	Male & Female
20	50.29	50	24.38	80	7.41
21	49.29	51	23.59	81	7.00
22	48.39	52	22.80	82	6.63
23	47.48	53	22.03	83	6.27
24	46.58	54	21.26	84	5.94
25	45.68	55	20.50	85	5.63
26	44.79	56	19.77	86	5.34
27	43.89	57	19.06	87	5.06
28	43.01	58	18.40	88	4.80
29	42.12	59	17.78	89	4.55
30	41.24	60	17.20	90	4.31
31	40.36	61	16.64	91	4.09
32	39.48	62	16.11	92	3.87
33	38.61	63	15.59	93	3.66
34	37.74	64	15.08	94	3.46
35	36.88	65	14.58	95	3.26
36	36.02	66	14.09	96	3.07
37	35.16	67	13.61	97	2.89
38	34.31	68	13.13	98	2.71
39	33.45	69	12.66	99	2.54
40	32.61	70	12.18	100	2.37
41	31.77	71	11.70	101	2.20
42	30.93	72	11.21	102	2.04
43	30.09	73	10.72	103	1.88
44	29.26	74	10.22	104	1.72
45	28.43	75	9.73	105	1.55
46	27.61	76	9.24	106	1.38
47	26.80	77	8.76	107	1.21
48	25.98	78	8.28	108	1.04
49	25.18	79	7.83	109	0.88
				110	0.71

1981 Safety Disability Table with 1 Year Setback

C. Summary of Membership and Benefit Statistics

Benefit Statistics and Membership

Active Miscellaneous Members

		June 30, 2002	June 30, 2001	Percent Change
1. Total				
A.	Number	257	259	-0.8%
B.	Average Age	44.26	44.74	-1.1%
C.	Average Years of Service	8.60	8.62	-0.2%
D.	Annual Salary			
	i. Total	$ 14,538,095	$ 13,475,537	7.9%
	ii. Average Monthly Salary	$ 4,714	$ 4,336	8.7%

Active Safety Members

		June 30, 2002	June 30, 2001	Percent Change
2. Total				
A.	Number	151	153	-1.3%
B.	Average Age	41.37	42.31	-2.2%
C.	Average Years of Service	13.82	14.89	-7.2%
D.	Annual Salary			
	i. Total	$ 12,684,992	$ 12,174,454	4.2%
	ii. Average Monthly Salary	$ 7,001	$ 6,631	5.6%

RETIRED AND INACTIVE VESTED MEMBERS

	June 30, 2002	June 30, 2001	Percent Change
Retired Members			
A. Service Retirement			
i. Number	185	182	1.6%
ii. Annual Allowance			
Basic Only	$ 3,544,536	$ 3,099,663	14.4%
COLA	$ 948,538	$ 852,543	11.3%
Total	$ 4,493,074	$ 3,952,206	13.7%
Average Monthly Amount	$ 2,024	$ 1,810	11.8%
B. Disability Retirement			
i. Number	55	55	0.0%
ii. Annual Allowance			
Basic Only	$ 949,239	$ 880,079	7.9%
COLA	$ 344,462	$ 313,528	9.9%
Total	$ 1,293,701	$ 1,193,607	8.4%
Average Monthly Amount	$ 1,960	$ 1,808	8.4%
C. Beneficiaries			
i. Number	50	50	0.0%
ii. Annual Allowance			
Basic Only	$ 498,098	$ 460,743	8.1%
COLA	$ 131,282	$ 130,499	0.6%
Total	$ 629,379	$ 591,242	6.5%
Average Monthly Amount	$ 1,049	$ 985	6.5%
D. Total			
i. Number	290	287	1.0%
ii. Annual Allowance			
Basic Only	$ 4,991,872	$ 4,440,485	12.4%
COLA	$ 1,424,282	$ 1,296,571	9.8%
Total	$ 6,416,154	$ 5,737,056	11.8%
Average Monthly Amount	$ 1,844	$ 1,666	10.7%
Inactive Vested Members			
A. Number	116	103	12.6%

ANNUAL SALARY AND MEMBERSHIP DISTRIBUTION OF ACTIVE MISCELLANEOUS MEMBERS (SECTION 31676.11) AS OF JUNE 30, 2002

MALES AND FEMALES

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	9									9
	36,522									36,522
25-29	21									21
	45,380									45,380
30-34	16	2	1							19
	40,236	71,342	60,520							44,577
35-39	19	6	7	6						38
	51,735	58,291	57,049	55,538						54,350
40-44	18	7	5	4	2					36
	44,034	77,116	57,381	54,310	59,364					54,314
45-49	15	8	8	9	5	2				47
	51,041	69,321	65,061	57,643	67,441	57,713				59,832
50-54	11	4	9	4	8	3	1			40
	61,453	73,392	70,721	74,145	76,425	74,728	135,755			71,849
55-59	9	7	3	3	2	2	2			28
	61,027	58,238	50,476	67,750	68,758	82,205	55,784			61,610
60-64	2	3	2	2	1	1	1		1	13
	65,849	55,398	46,222	67,958	50,566	50,430	62,668		66,881	58,215
65-69	1	1	1			1	1			5
	29,788	6,617	9,566			91,206	55,119			38,459
70-74										0
										0
75+	1									1
	28,646									28,646
TOTAL	122	38	36	28	18	9	5	0	1	257
	48,213	64,759	59,922	60,893	69,745	71,740	73,022		66,881	56,568

Total Salary	$14,538,095
Average Age	44.26
Average Service	8.60

ANNUAL SALARY AND MEMBERSHIP DISTRIBUTION OF ACTIVE SAFETY MEMBERS AS OF JUNE 30, 2002

MALES AND FEMALES

Age Group	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	TOTAL
0-19										
20-24	8									8
	62,734									62,734
25-29	12	1								13
	68,645	80,166								69,531
30-34	15	7	2							24
	70,907	80,252	79,988							74,389
35-39	5	1	7	3						16
	69,069	75,466	85,545	92,868						81,139
40-44	5	1	7	4	6					23
	81,763	83,520	87,306	90,242	90,895					87,383
45-49		1	3	6	16	6				32
		91,117	84,788	89,477	91,020	94,203				90,746
50-54	1		1	3	6	10	4			25
	96,480		77,696	98,459	84,976	96,312	98,426			93,449
55-59	1				2	4	1	1		9
	73,348				76,147	99,829	96,897	84,833		89,632
60-64									1	1
									139,035	139,035
65-69										-
70-74										-
75+										-
TOTAL	47	11	20	16	30	20	5	1	1	151
	70,494	81,094	85,100	91,988	88,795	96,383	98,120	84,833	139,035	84,007

Total Salary	$12,684,992
Average Age	41.37
Average Service	13.82

ANNUAL BENEFIT AND MEMBERSHIP DISTRIBUTION OF RETIRED MISCELLANEOUS MEMBERS AND BENEFICIARIES AS OF JUNE 30, 2002

MALES AND FEMALES

Age Group	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	TOTAL
0-19										0
20-24										0
25-29										0
30-34										0
35-39										0
40-44	1	1								2
	6,933	8,992								7,963
45-49			2							2
			9,592							9,592
50-54	7		2	1						10
	13,885		17,637	17,918						15,038
55-59	11	5		3						19
	14,306	12,682		19,768						14,741
60-64	11	3	1	1	1	2				19
	23,937	5,250	1,476	13,859	22,741	13,846				18,148
65-69	4	9	5	3	1	1				23
	15,231	20,751	15,239	11,238	15,962	17,919				17,020
70-74	2	6	4	4	4		1			21
	27,693	13,680	12,957	5,907	12,471		1,627			12,592
75-79		2	3	7	10	2				24
		5,547	12,930	8,159	5,448	12,107				7,737
80-84		2		4	6	6				18
		21,803		10,660	15,746	6,399				12,173
85-89				2	3	4				9
				13,745	12,309	5,110				9,429
90+					1	4				5
					1,458	11,008				9,098
TOTAL	36	28	17	25	26	19	1	0	0	152
	17,809	14,703	13,103	11,027	10,613	9,089	1,627			13,167

Total Retirement Benefits	$2,001,456
Average Age	69.56
Average Service	13.05

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ANNUAL BENEFIT AND MEMBERSHIP DISTRIBUTION OF RETIRED SAFETY MEMBERS AND BENEFICIARIES AS OF JUNE 30, 2002

MALES AND FEMALES

Age Group	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	TOTAL
0-19										-
20-24										-
25-29										-
30-34	2									2
	18,663									18,663
35-39			1							1
			25,623							25,623
40-44	2									2
	29,551									29,551
45-49	3	3			1				1	8
	35,268	21,505			17,009				2,095	23,678
50-54	7	1	2	3						13
	35,065	27,864	25,914	23,920						30,532
55-59	21	7	3	2	2	1				36
	60,698	21,471	21,190	25,557	21,406	6,641				44,141
60-64	7	6	3	8						24
	32,823	45,743	22,772	22,475						31,347
65-69		4	7	5	5					21
		25,655	51,275	21,425	15,762					30,832
70-74				10	4	2				16
				35,070	20,703	15,145				28,987
75-79					2	1				3
					21,470	13,899				18,946
80-84						5				5
						20,659				20,659
85-89					1	3	1	1		6
					10,347	16,734	14,830	5,198		13,429
90+						1				1
						12,904				12,904
TOTAL	42	21	16	28	15	13	1	1	1	138
	46,479	29,512	35,517	27,161	18,315	16,710	14,830	5,198	2,095	31,991

Total Retirement Benefits	$4,414,698
Average Age	62.11
Average Service	12.45

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

Miscellaneous

		Monthly Allowances			
Service Retirement		Number	Basic	Cost of Living	Total
	Unmodified	91	86,982	27,390	114,373
	Option 1	8	3,179	2,143	5,322
	Option 2 & 3	9	4,588	1,801	6,389
	Total	108	94,749	31,335	126,084
Ordinary Disability					
	Unmodified	3	2,277	430	2,706
	Option 1	0	0	0	0
	Option 2 & 3	0	0	0	0
	Total	3	2,277	430	2,706
Duty Disability					
	Unmodified	15	14,827	6,487	21,314
	Option 1	1	1,072	598	1,669
	Option 2 & 3	0	0	0	0
	Total	16	15,898	7,085	22,984
Beneficiary					
	Unmodified	25	11,870	3,145	15,015
	Option 1	0	0	0	0
	Option 2 & 3	0	0	0	0
	Total	25	11,870	3,145	15,015

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

Safety

		Monthly Allowances			
Service Retirement		Number	Basic	Cost of Living	Total
	Unmodified	72	196,123	44,529	240,652
	Option 1	2	1,110	1,214	2,324
	Option 2 & 3	3	3,396	1,968	5,364
	Total	77	200,629	47,710	248,339
Ordinary Disability					
	Unmodified	0	0	0	0
	Option 1	0	0	0	0
	Option 2 & 3	0	0	0	0
	Total	0	0	0	0
Duty Disability					
	Unmodified	34	57,918	19,860	77,778
	Option 1	1	1,374	831	2,205
	Option 2 & 3	1	1,636	499	2,135
	Total	36	60,928	21,190	82,119
Beneficiary					
	Unmodified	23	24,471	7,574	30,728
	Option 1	1	848	221	1,069
	Option 2 & 3	1	4,319	0	5,637
	Total	25	29,638	7,795	37,434

D. Members' Contribution Rates

RECOMMENDED MISCELLANEOUS MEMBERS' CONTRIBUTION RATES

Age	Basic	COL	Implicit COL	Limited to Implicit COL	Total With Implicit COL	Total Without Implicit COL
16	6.16%	1.75%	0.10%	0.10%	6.26%	7.91%
17	6.18%	1.76%	0.17%	0.17%	6.35%	7.94%
18	6.20%	1.77%	0.22%	0.22%	6.42%	7.97%
19	6.22%	1.77%	0.28%	0.28%	6.50%	7.99%
20	6.24%	1.78%	0.32%	0.32%	6.56%	8.02%
21	6.26%	1.78%	0.38%	0.38%	6.64%	8.04%
22	6.28%	1.79%	0.43%	0.43%	6.71%	8.07%
23	6.30%	1.79%	0.49%	0.49%	6.79%	8.09%
24	6.33%	1.80%	0.53%	0.53%	6.86%	8.13%
25	6.36%	1.81%	0.59%	0.59%	6.95%	8.17%
26	6.40%	1.82%	0.63%	0.63%	7.03%	8.22%
27	6.44%	1.83%	0.70%	0.70%	7.14%	8.27%
28	6.48%	1.85%	0.75%	0.75%	7.23%	8.33%
29	6.53%	1.86%	0.82%	0.82%	7.35%	8.39%
30	6.57%	1.87%	0.88%	0.88%	7.45%	8.44%
31	6.63%	1.89%	0.93%	0.93%	7.56%	8.52%
32	6.68%	1.90%	0.99%	0.99%	7.67%	8.58%
33	6.74%	1.92%	1.05%	1.05%	7.79%	8.66%
34	6.80%	1.94%	1.11%	1.11%	7.91%	8.74%
35	6.86%	1.95%	1.17%	1.17%	8.03%	8.81%
36	6.93%	1.97%	1.23%	1.23%	8.16%	8.90%
37	7.00%	1.99%	1.29%	1.29%	8.29%	8.99%
38	7.07%	2.01%	1.35%	1.35%	8.42%	9.08%
39	7.14%	2.03%	1.41%	1.41%	8.55%	9.17%
40	7.22%	2.06%	1.47%	1.47%	8.69%	9.28%
41	7.30%	2.08%	1.53%	1.53%	8.83%	9.38%
42	7.38%	2.10%	1.59%	1.59%	8.97%	9.48%
43	7.46%	2.12%	1.66%	1.66%	9.12%	9.58%
44	7.54%	2.15%	1.73%	1.73%	9.27%	9.69%
45	7.63%	2.17%	1.78%	1.78%	9.41%	9.80%
46	7.72%	2.20%	1.86%	1.86%	9.58%	9.92%
47	7.82%	2.23%	1.92%	1.92%	9.74%	10.05%
48	7.91%	2.25%	1.99%	1.99%	9.90%	10.16%
49	8.01%	2.28%	2.04%	2.04%	10.05%	10.29%
50	8.12%	2.31%	2.90%	2.31%	10.43%	10.43%
51	8.22%	2.34%	2.76%	2.34%	10.56%	10.56%
52	8.33%	2.37%	2.61%	2.37%	10.70%	10.70%
53	8.44%	2.40%	2.45%	2.40%	10.84%	10.84%
54	8.55%	2.44%	2.28%	2.28%	10.83%	10.99%
55	8.55%	2.44%	2.28%	2.28%	10.83%	10.99%
56	8.55%	2.44%	2.28%	2.28%	10.83%	10.99%
57	8.55%	2.44%	2.28%	2.28%	10.83%	10.99%
58	8.55%	2.44%	2.28%	2.28%	10.83%	10.99%
59	8.55%	2.44%	2.28%	2.28%	10.83%	10.99%
60	8.55%	2.44%	2.28%	2.28%	10.83%	10.99%

RECOMMENDED SAFETY MEMBERS' CONTRIBUTION RATES

Age	Basic	COL	Implicit COL	Limited to Implicit COL	Total With Implicit COL	Total Without Implicit COL
16	7.36%	2.82%	2.35%	2.35%	9.71%	10.18%
17	7.39%	2.83%	2.30%	2.30%	9.69%	10.22%
18	7.42%	2.84%	2.24%	2.24%	9.66%	10.26%
19	7.45%	2.85%	2.18%	2.18%	9.63%	10.30%
20	7.48%	2.86%	2.12%	2.12%	9.60%	10.34%
21	7.51%	2.88%	2.05%	2.05%	9.56%	10.39%
22	7.56%	2.89%	2.12%	2.12%	9.68%	10.45%
23	7.61%	2.91%	2.17%	2.17%	9.78%	10.52%
24	7.66%	2.93%	2.25%	2.25%	9.91%	10.59%
25	7.72%	2.96%	2.30%	2.30%	10.02%	10.68%
26	7.78%	2.98%	2.37%	2.37%	10.15%	10.76%
27	7.86%	3.01%	2.42%	2.42%	10.28%	10.87%
28	7.93%	3.04%	2.47%	2.47%	10.40%	10.97%
29	8.01%	3.07%	2.52%	2.52%	10.53%	11.08%
30	8.10%	3.10%	2.58%	2.58%	10.68%	11.20%
31	8.20%	3.14%	2.61%	2.61%	10.81%	11.34%
32	8.30%	3.18%	2.66%	2.66%	10.96%	11.48%
33	8.41%	3.22%	2.70%	2.70%	11.11%	11.63%
34	8.52%	3.26%	2.74%	2.74%	11.26%	11.78%
35	8.64%	3.31%	2.79%	2.79%	11.43%	11.95%
36	8.76%	3.35%	2.85%	2.85%	11.61%	12.11%
37	8.89%	3.40%	2.91%	2.91%	11.80%	12.29%
38	9.02%	3.45%	2.97%	2.97%	11.99%	12.47%
39	9.15%	3.50%	3.02%	3.02%	12.17%	12.65%
40	9.28%	3.55%	3.10%	3.10%	12.38%	12.83%
41	9.41%	3.60%	3.16%	3.16%	12.57%	13.01%
42	9.55%	3.66%	3.23%	3.23%	12.78%	13.21%
43	9.69%	3.71%	3.30%	3.30%	12.99%	13.40%
44	9.83%	3.76%	3.38%	3.38%	13.21%	13.59%
45	9.98%	3.82%	4.50%	3.82%	13.80%	13.80%
46	10.12%	3.87%	4.32%	3.87%	13.99%	13.99%
47	10.27%	3.93%	4.13%	3.93%	14.20%	14.20%
48	10.43%	3.99%	3.94%	3.94%	14.37%	14.42%
49	10.58%	4.05%	3.76%	3.76%	14.34%	14.63%
50	10.58%	4.05%	3.76%	3.76%	14.34%	14.63%
51	10.58%	4.05%	3.76%	3.76%	14.34%	14.63%
52	10.58%	4.05%	3.76%	3.76%	14.34%	14.63%
53	10.58%	4.05%	3.76%	3.76%	14.34%	14.63%
54	10.58%	4.05%	3.76%	3.76%	14.34%	14.63%
55	10.58%	4.05%	3.76%	3.76%	14.34%	14.63%
56	10.58%	4.05%	3.76%	3.76%	14.34%	14.63%
57	10.58%	4.05%	3.76%	3.76%	14.34%	14.63%
58	10.58%	4.05%	3.76%	3.76%	14.34%	14.63%
59	10.58%	4.05%	3.76%	3.76%	14.34%	14.63%
60	10.58%	4.05%	3.76%	3.76%	14.34%	14.63%

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 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 system. GASB No. 25 specifies the Actuarial Accrued Liability as a standardized level of the Actuarial Value of Assets.

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

UAAL: (See Unfunded Actuarial Accrued Liability).

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