November 11, 2003

Actuarial Valuation Report
Sacramento County Employees'
Retirement System

As of June 30, 2003

MERCER
Human Resource Consulting

Section 1: Actuarial Certification

The annual actuarial valuation required for the Sacramento County Employees' Retirement System has been prepared as of June 30, 2003, by Mercer Human Resource Consulting, Inc. In preparing this valuation, we have employed generally accepted actuarial methods and assumptions to determine a sound value for the System's assets, liability and future contribution requirements. Our calculations are based upon member data and unaudited financial information provided to us by the System's staff. This data has not been audited by us, but it has been reviewed and found to be consistent, both internally and with prior years' data.

The contribution requirements are determined as a percentage of payroll. The primary funding objective of the System is to determine employer rates required to provide for both normal cost and a contribution to amortize the unfunded actuarial accrued liability. The amortization period for the unfunded actuarial accrued liability is 19 years as of June 30, 2003. Also included in this report are the rates assuming a 30-year amortization period. The contribution to the unfunded actuarial accrued liability is calculated to remain level as a percentage of future payroll (including projected payroll for future members). The dollar amount of payments (credits) will increase with payroll at a rate of 4.25 percent per year. The period for amortizing the unfunded actuarial accrued liability is set by the Board of Retirement.

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

Contribution levels are recommended by the Actuary and adopted by the Board each year. The ratio of Actuarial Value of Assets to Actuarial Accrued Liabilities decreased from 107.1 percent to 94.1 percent during the year.

The results in this valuation were based on our recommended interest and inflation assumptions of 8.00 percent and 3.00 percent developed in this report. Other important assumptions included the demographic and salary increase assumptions adopted by the Board in the last triennial experience study as of June 30, 2001.

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

Appendix F contains supporting schedules to be included in the System's CAFR Report.

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.

MERCER

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November 11, 2003

Board of Retirement
Sacramento County Employees' Retirement System
980 9th Street, Suite 1800
Sacramento, CA 95814-2738

Subject:
**Actuarial Valuation for the Sacramento County Employees'
Retirement System**

Dear Members of the Board:

We are pleased to present the actuarial valuation for the Sacramento County Employees' Retirement System prepared as of June 30, 2003, by Mercer Human Resource Consulting. The report includes:
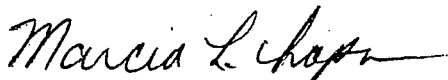
1. A determination of the recommended employer contribution rates. These rates are calculated to be effective July 1, 2004;

2. A determination of the recommended member contribution rates, also to be effective on July 1, 2004;

3. A determination of the funded status as of June 30, 2003; and

4. Financial reporting and disclosure information pursuant to applicable accounting standards.

This report incorporates the impact on funding status and contribution rates of the Retirement Board's expansion of the pay items includable in Earnable Compensation in response to the 1997 California Supreme Court decision in the *Ventura County Deputy Sheriff's System v. Board of Retirement, Ventura County Employees' Retirement System.* This report does not incorporate the settlement of the Ventura Litigation that is anticipated to be settled January 31, 2004. The settlement will include a retrospective lump sum amount and a prospective increase in the monthly allowance. The settlement, if finalized during the 2003/2004 plan year, will be incorporated in the next actuarial valuation.

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

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

Sincerely,

Marcia L. Chapman, FSA, EA, MAAA

Brenda J. Majdic, ASA, EA, MAAA

BJM/MLC/mlc/bjm/bjo:gjw

MMC Marsh & McLennan Companies

MMC Marsh & McLennan Companies

Contents
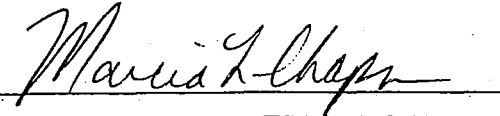
Appendices

- 'A. Summary of Plan Provisions

- B. Actuarial Assumptions

- C. Actuarial Valuation Methods

- D. Summary of Membership and Benefit Statistics

- E. Member Contribution Rates

- F. CAFR Schedules

- G. Glossary

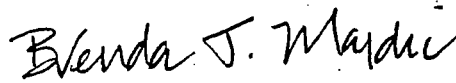# Section 1: Actuarial Certification *(continued)*

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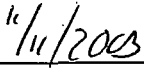
Mercer Human Resource Consulting

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Marcia L. Chapman, FSA, EA, MAAA
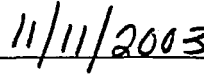
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Brenda J. Majdic, ASA, EA, MAAA

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Date

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Date

Section 2: Board Member Summary of Valuation Results

Summary of Recommendations

Employer Contributions Rates	June 30, 2003	June 30, 2002	Increase/ (Decrease)
Normal Cost Rate:	15.23%	10.23%	5.00%
Rate of Contribution to Unfunded Actuarial Accrued Liability:	2.52%	-2.51%	5.03%
Total Employer Rate:	17.75%	7.72%	10.03%
Estimated Annual Amount:	$128,640,000	$55,867,000	$72,773,000

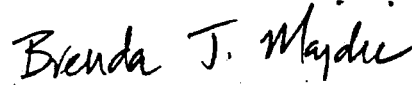| Member Contribution Rates [i]	June 30, 2003	June 30, 2002	Increase/ (Decrease)	Average Change per Bi-Week
Miscellaneous Members				
Tier 1	4.97%	7.25%	-2.28%	$ (55.89)
Tier 2	3.46%	5.98%	-2.52%	$ -
Tier 3	4.23%	6.45%	-2.22%	$ (40.51)
Safety Members				
Tier 1	10.24%	9.81%	0.43%	$ 12.19
Tier 2	9.31%	8.97%	0.34%	$ 7.38
Estimated Annual Amount	$ 31,071,000	$ 40,375,000	$ (9,304,000)	

Actuarial Assumptions	June 30, 2003	June 30, 2002	Increase/ (Decrease)
Annual General Inflation Rate:	3.00%	4.25%	-1.25%
Annual Investment Return:	8.00%	8.00%	0.00%
Annual Wage Inflation:	4.25%	4.25%	0.00%
Average Annual Salary Increases:	5.75% [ii]	5.75%	0.00%

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

(i) Based on single full-rates payable by member. District Members are subject to different rates as shown on page 9.
(ii) Result based on recommended assumptions (4.25% wage inflation and 1.50% average merit and longevity assumptions.)

Section 2: Board Member Summary of Valuation Results *(cont.)*

Summary of Significant Actuarial Statistics and Measures

	June 30, 2003	June 30, 2002	Increase/ (Decrease)
System Membership			
Active Members			
1. Number of Members	14,133	14,033	1%
2. Total Active Payroll	$733,296,000 (i)	$695,259,000	5%
3. Average Monthly Salary	$4,324	$4,129	5%
Retired Members			
1. Number of Members			
Service Retirement	4,220	4,119	2%
Disability Retirement	679	674	1%
Beneficiaries	983	949	4%
Total	5,882	5,742	2%
2. Total Retired Payroll	$115,819,000	$108,538,000	7%
3. Average Monthly Pension	$1,641	$1,575	4%
Inactive Vested Members			
1. Number of Members	1,885	1,994	(5%)
Asset Values (Net)			
Market Value	$3,238,826,000	$3,199,234,000	1%
Return on Market Value	2.17%	-5.81%	
Actuarial Value	$3,864,400,000	$3,839,081,000	1%
Return on Actuarial Value	1.43%	4.16%	
Liability Values			
Actuarial Accrued Liability	$4,108,294,000	$3,586,250,000	15%
Unfunded Actuarial Accrued Liability (UAAL)	$243,894,000	($252,831,000)	(196%)
Funding Ratios			
GASB No. 25	94.1%	107.1%	-13%

(i) Total active payroll as of June 30, 2003 was $733,296,000. However, for purposes of developing the rates for 2004-2005, the active payroll has been reduced to $724,582,000 to take into account the reduction in expected payroll at the County for the 2003-2004 plan year.

Section 3: Actuarial Valuation Results

Employer and Member Contribution Rates

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

Contribution Rates and Estimated Annual Contributions

Valuation Basis (Inflation/Investment Return) Salary Increase)	Employer Contributions		Member Contributions	
	Rate	Annual Amount*	Rate	Annual Amount*
2003/2004 Rates (Before Benefit Enhancement (4.25%/8.0%/5.75%)	7.72%	$55,867,000	5.51%	$ 40,375,000
2003/2004 Rates (After Benefit Enhancement) (4.25%/8.0%/5.75%)	17.33%	$125,604,000	3.70%	$ 27,108,000
Recommended 2004/2005 Rates (3.00%/8.0%/5.75%)	17.75%	$128,640,000	4.24%	$ 31,071,000

*   Based on adjusted total annual salaries as of June 30, 2003 of $724,582,000.

Recommendation

Mercer recommends the adoption of the valuation basis and contribution rates according to the Recommended 2004/2005 Rates. The component parts of the 2003/2004 and 2004/2005 employer and member contribution rates broken down among the various member categories can be found on pages 9 through 13. On page 14 we have included the recommended 2004/2005 employer rates, assuming adoption of 30-year amortization period.

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

Section 3: Actuarial Valuation Results *(continued)*

Portion of Rates Due to Disability Retirements

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

	% of Recommended Employer Rate for Disability
Miscellaneous Members	8%
Safety Members	16%
Total Group	10%

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

Section 3: Actuarial Valuation Results *(continued)*

Explanation of Changes in Actuarial Values

Employer Contribution Rate

The average employer contribution rate increased from 7.72 percent calculated in the June 30, 2002, valuation to 17.75 percent calculated in this valuation.

The gains and losses were as follows:

Summary of Gain/ Loss	Rate Impact		Dollar Impact
June 30, 2002 Employer Rate	7.72%	$	55,867,000
Enhanced Benefit Improvements	9.61%	$	69,737,000
June 30, 2002 Employer Rate (after benefit enhancements)	17.33%	$	125,604,000
Investment return greater than expected	-0.13%	$	(962,000)
Transfer to Offset Future Employer Contributions	0.00%	$	-
Salary increase greater than expected	0.02%	$	170,000
Retiree COLA less than expected	-0.02%	$	(124,000)
Dilution of Prefunded Actuarial Accrued Liability Credit	-0.02%	$	(157,000)
Impact of Assumption Changes	-0.43%	$	(3,148,000)
Retiree Mortality lower than expected	0.38%	$	2,750,000
Withdrawal Refunds less than expected	0.03%	$	239,000
Refinement in Calculation of Reciprocal Benefits	0.03%	$	250,000
Adjustment for Reduction in Payroll for 2003-2004 Plan Yea	0.09%	$	652,000
Miscellaneous (gains)/ losses	0.47%	$	3,366,000
Subtotal	0.42%	$	3,036,000
June 30, 2003 Employer Rate	17.75%	$	128,640,000

Explanation of Gain/ Loss Items

Investment return greater than expected — The System's actuarial valuation assets earned 0.40 percent in excess of the 8 percent return assumption. Note that this was increased by transfers from unallocated reserves.

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

Retiree Cola — Average COLA increase for retirees in Tier 1 was 3.50 percent, which was lower than the expected increase of 3.65 percent.

Dilution of Prefunded Actuarial Accrued Liability Credit — The aggregate payroll increased by 5.47 percent and was higher than the expected increase of 4.25 percent. The unexpected increase diluted the percentage of payroll credit drawn from the Prefunded Actuarial Accrued Liability.

Section 3: Actuarial Valuation Results *(continued)*

Assumption Changes — The assumed COLA percentage for Tier 1 was lowered from 3.65 percent to 3.50 percent to reflect lower expected inflation.

Retiree Mortality lower than expected — There were fewer deaths among the retirees than expected.

Withdrawal Refunds less than expected — The amount of refunds of member contributions was lower than expected.

Refinement in Calculation of Reciprocal Benefits — The calculation of benefits provided to reciprocal members was refined to better estimate the benefits provided to reciprocal members and incorporate an assumed salary increase of 5.75 percent.

Adjustment for Reduction in Payroll for 2003-2004 — According to the County, the expected payroll for the 2003-2004 plan year is expected to be lower than the amount anticipated based on the active population as of June 30, 2003. Thus, we have incorporated a lower projected salary amount into the rates developed in this report for the 2004-2005 plan year.

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

Member Contribution Rate

The average member rate increased as a result of spreading the unused COLA subsidy over a larger payroll base (including new entrants during 2002/2003).

Funding Ratios

There was a reduction in the funding ratio due to the reflection of benefit improvements for Miscellaneous Members to 2 percent at age 55.5 (Section 31676.14) and for Safety Members to 3 percent at age 50 (Section 31664.1) In addition, retirees received an ad hoc COLA increase under Section 31681.55 on June 30, 2003.

However, there is some offset to the unfunded actuarial accrued liabilities due to a reduction in the inflation assumption to 3 percent per year.

Actuarial Assumptions

The cost-of-living assumption was reduced from 4.25 percent to 3.0 percent to better reflect expectations of cost-of-living in the future. For Tier One members, we assumed a 3.5 percent cost-of-living increase which reflects the fact that the maximum is 4.0 percent and members have a cost-of-living bank. For Tiers 2 and 3, the assumption is 2 percent.

Section 3: Actuarial Valuation Results *(continued)*

Member Contribution Rates

2003/2004 Rates (Before Benefit Enhancement)
8% Interest, 4.25% Inflation and 5.75% Salary Scale Assumption

Miscellaneous Members								Safety Members					
Tier 1			Tier 2		Tier 3			Tier 1			Tier 2		
Basic	COLA	Total	Basic	Total	Basic	COLA	Total	Basic	COLA	Total	Basic	COLA	Total
						County Rates							
6.29%	0.96%	7.25%	5.98%	5.98%	5.98%	0.47%	6.45%	8.51%	1.30%	9.81%	8.09%	0.88%	8.97%
						District Rates							
6.29%	0.96%	7.25%	N/A	N/A	5.98%	0.47%	6.45%	8.51%	1.30%	9.81%	N/A	N/A	N/A

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

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

2003/2004 Rates (under Section 31676.14 and 31664.1 Benefit Enhancements)
8% Interest, 4.25% Inflation and 5.75% Salary Scale Assumption

Miscellaneous Members								Safety Members					
Tier 1			Tier 2		Tier 3			Tier 1			Tier 2		
Basic	COLA	Total	Basic	Total	Basic	COLA	Total	Basic	COLA	Total	Basic	COLA	Total
				County Rates - All Service Improvement									
3.64%	1.22%	4.86%	3.46%	3.46%	3.46%	0.77%	4.23%	8.51%	1.63%	10.14%	8.09%	1.20%	9.29%
				District Rates - Future Service Improvement									
3.64%	0.97%	4.61%	N/A	N/A	3.46%	0.67%	4.13%	8.51%	1.74%	10.25%	N/A	N/A	N/A

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

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

Section 3: Actuarial Valuation Results *(continued)*

Recommended 2004/2005 Rates
8% Interest, 3.0% Inflation and 5.75% Salary Scale Assumption

	Miscellaneous Members								Safety Members				
	Tier 1			Tier 2		Tier 3			Tier 1			Tier 2		
	Basic	COLA	Total	Basic	Total	Basic	COLA	Total	Basic	COLA	Total	Basic	COLA	Total
County Rates - All Service Improvement														
	3.64%	1.33%	4.97%	3.46%	3.46%	3.46%	0.77%	4.23%	8.51%	1.73%	10.24%	8.09%	1.22%	9.31%
District Rates - Future Service Improvement														
	3.64%	1.06%	4.70%	N/A	N/A	3.46%	0.67%	4.13%	8.51%	1.62%	10.13%	N/A	N/A	N/A

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

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

Section 3: Actuarial Valuation Results (continued)

Employer Contribution Rate Detail

2003/2004 Rates (Before Benefit Enhancement)
8% Interest, 4.25% Inflation and 5.75% Salary Scale Assumptions

2003/2004 Rates (County Rates)

| | Miscellaneous | | | | | | Safety | | | | Total | |
| | Tier 1 | | Tier 2 | | Tier 3 | | Tier 1 | | Tier 2 | | | |
	% of Payroll	Annual Amount ($)	% of Payroll	Annual Amount ($)	% of Payroll	Annual Amount ($)	% of Payroll	Annual Amount ($)	% of Payroll	Annual Amount ($)	% of Payroll	Annual Amount ($)
Normal Cost	9.68%	7,147,000	6.07%	1,370,000	7.69%	34,823,000	20.64%	16,087,000	17.14%	12,856,000	10.30%	72,283,000
UAAL	-2.54%	(1,876,000)	-2.54%	(573,000)	-2.54%	(11,497,000)	-3.61%	(2,814,000)	-3.61%	(2,707,000)	-2.77%	(19,467,000)
Total	7.14%	5,271,000	3.53%	797,000	5.15%	23,326,000	17.03%	13,273,000	13.53%	10,149,000	7.53%	52,816,000

2003/2004 Rates (District Rates)

| | Miscellaneous | | | | | | Safety | | | | Total | |
| | Tier 1 | | Tier 2 | | Tier 3 | | Tier 1 | | Tier 2 | | | |
	% of Payroll	Annual Amount ($)	% of Payroll	Annual Amount ($)	% of Payroll	Annual Amount ($)	% of Payroll	Annual Amount ($)	% of Payroll	Annual Amount ($)	% of Payroll	Annual Amount ($)
Normal Cost	9.60%	168,000	N/A	N/A	7.57%	1,527,000	16.84%	112,000	N/A	N/A	8.00%	1,807,000
UAAL	5.49%	96,000	N/A	N/A	5.49%	1,107,000	6.12%	41,000	N/A	N/A	5.51%	1,244,000
Total	15.09%	264,000	N/A	N/A	13.06%	2,634,000	22.96%	153,000	N/A	N/A	13.51%	3,051,000

Average weighted rate for the total group =   7.72%

Annual Salary at June 30, 2003 ($)

County	73,858,000	22,579,000	452,638,000	77,940,000	74,985,000	702,000,000
District	1,749,000	-	20,170,000	663,000	-	22,582,000
	75,607,000	22,579,000	472,808,000	78,603,000	74,985,000	724,582,000

Section 3: Actuarial Valuation Results (continued)

Employer Contribution Rate Detail

2003/2004 Rates (After Benefit Enhancements Under Section 31676.14 and 31664.1)
8% Interest, 4.25% Inflation and 5.75% Salary Scale Assumptions

2003/2004 Rates (County Rates)

| | Miscellaneous | | | | | | Safety | | | | Total | |
| | Tier 1 | | Tier 2 | | Tier 3 | | Tier 1 | | Tier 2 | | | |
	% of Payroll	Annual Amount ($)	% of Payroll	Annual Amount ($)	% of Payroll	Annual Amount ($)	% of Payroll	Annual Amount ($)	% of Payroll	Annual Amount ($)	% of Payroll	Annual Amount ($)
Normal Cost	14.68%	10,843,000	10.31%	2,328,000	12.69%	57,443,000	28.05%	21,865,000	22.67%	17,001,000	15.60%	109,480,000
UAAL	1.16%	857,000	1.16%	262,000	1.16%	5,251,000	3.64%	2,837,000	3.64%	2,729,000	1.70%	11,936,000
Total	15.84%	11,700,000	11.47%	2,590,000	13.85%	62,694,000	31.69%	24,702,000	26.31%	19,730,000	17.30%	121,416,000

2003/2004 Rates (District Rates)

| | Miscellaneous | | | | | | Safety | | | | Total | |
| | Tier 1 | | Tier 2 | | Tier 3 | | Tier 1 | | Tier 2 | | | |
	% of Payroll	Annual Amount ($)	% of Payroll	Annual Amount ($)	% of Payroll	Annual Amount ($)	% of Payroll	Annual Amount ($)	% of Payroll	Annual Amount ($)	% of Payroll	Annual Amount ($)
Normal Cost	11.34%	198,000	N/A	N/A	11.65%	2,350,000	20.59%	136,000	N/A	N/A	11.89%	2,684,000
UAAL	6.55%	115,000	N/A	N/A	6.55%	1,321,000	10.30%	68,000	N/A	N/A	6.66%	1,504,000
Total	17.89%	313,000	N/A	N/A	18.20%	3,671,000	30.89%	204,000	N/A	N/A	18.55%	4,188,000

Average weighted rate for the total group = 17.33%

Annual Salary at June 30, 2003 ($)

County	73,858,000	22,579,000	452,638,000	77,940,000	74,985,000	702,000,000
District	1,749,000	-	20,170,000	663,000	-	22,582,000
	75,607,000	22,579,000	472,808,000	78,603,000	74,985,000	724,582,000

Section 3: Actuarial Valuation Results *(continued)*

Employer Contribution Rate Detail

Recommended 2004/2005 Rates
8% Interest, 3.00% Inflation and 5.75% Salary Scale Assumptions

Recommended 2004/2005 (County Rates)

	Miscellaneous						Safety					Total	
	Tier 1		Tier 2		Tier 3		Tier 1		Tier 2				
	% of Payroll	Annual Amount ($)	% of Payroll	Annual Amount ($)	% of Payroll	Annual Amount ($)	% of Payroll	Annual Amount ($)	% of Payroll	Annual Amount ($)		% of Payroll	Annual Amount ($)
Normal Cost	14.58%	10,770,000	10.25%	2,315,000	12.41%	56,181,000	27.23%	21,221,000	23.08%	17,307,000		15.36%	107,794,000
UAAL	1.75%	1,293,000	1.75%	395,000	1.75%	7,921,000	4.59%	3,577,000	4.59%	3,442,000		2.37%	16,628,000
Total	16.33%	12,063,000	12.00%	2,710,000	14.16%	64,102,000	31.82%	24,798,000	27.67%	20,749,000		17.73%	124,422,000

Recommended 2004/2005 (District Rates)

	Miscellaneous						Safety					Total	
	Tier 1		Tier 2		Tier 3		Tier 1		Tier 2				
	% of Payroll	Annual Amount ($)	% of Payroll	Annual Amount ($)	% of Payroll	Annual Amount ($)	% of Payroll	Annual Amount ($)	% of Payroll	Annual Amount ($)		% of Payroll	Annual Amount ($)
Normal Cost	11.26%	197,000	N/A	N/A	11.31%	2,281,000	16.17%	107,000	N/A	N/A		11.45%	2,585,000
UAAL	7.11%	124,000	N/A	N/A	7.11%	1,434,000	11.25%	75,000	N/A	N/A		7.23%	1,633,000
Total	18.37%	321,000	N/A	N/A	18.42%	3,715,000	27.42%	182,000	N/A	N/A		18.68%	4,218,000

Average weighted rate for the total group =   17.75%

Annual Salary at June 30, 2003 ($)

County	73,858,000	22,579,000	452,638,000	77,940,000	74,985,000	702,000,000
District	1,749,000	-	20,170,000	663,000	-	22,582,000
	75,607,000	22,579,000	472,808,000	78,603,000	74,985,000	724,582,000

Section 3: Actuarial Valuation Results *(continued)*

Employer Contribution Rate Detail

Recommended 2004/2005 Rates (30-Year Amortization Period)
8% Interest, 3.00% Inflation and 5.75% Salary Scale Assumptions

	Miscellaneous						Safety				Total	
	Tier 1		Tier 2		Tier 3		Tier 1		Tier 2			
	% of Payroll	Annual Amount ($)	% of Payroll	Annual Amount ($)	% of Payroll	Annual Amount ($)	% of Payroll	Annual Amount ($)	% of Payroll	Annual Amount ($)	% of Payroll	Annual Amount ($)
Normal Cost	14.58%	10,770,000	10.25%	2,315,000	12.41%	56,181,000	27.23%	21,221,000	23.08%	17,307,000	15.36%	107,794,000
UAAL	1.31%	968,000	1.31%	296,000	1.31%	5,930,000	3.43%	2,673,000	3.43%	2,572,000	1.77%	12,439,000
Total	15.89%	11,738,000	11.56%	2,611,000	13.72%	62,111,000	30.66%	23,894,000	26.51%	19,879,000	17.13%	120,233,000

Recommended 2004/2005 (District Rates)

	Miscellaneous						Safety				Total	
	Tier 1		Tier 2		Tier 3		Tier 1		Tier 2			
	% of Payroll	Annual Amount ($)	% of Payroll	Annual Amount ($)	% of Payroll	Annual Amount ($)	% of Payroll	Annual Amount ($)	% of Payroll	Annual Amount ($)	% of Payroll	Annual Amount ($)
Normal Cost	11.26%	197,000	N/A	N/A	11.31%	2,281,000	16.17%	107,000	N/A	N/A	11.45%	2,585,000
UAAL	1.80%	31,000	N/A	N/A	1.80%	362,000	10.80%	72,000	N/A	N/A	2.06%	465,000
Total	13.05%	228,000	N/A	N/A	13.10%	2,643,000	26.97%	179,000	N/A	N/A	13.51%	3,050,000

Average weighted rate for the total group =   17.01%

Annual Salary at June 30, 2003 ($)

	Tier 1 (Misc)	Tier 2 (Misc)	Tier 3 (Misc)	Tier 1 (Safety)	Tier 2 (Safety)	Total
County	73,858,000	22,579,000	452,638,000	77,940,000	74,985,000	702,000,000
District	1,749,000	-	20,170,000	663,000	-	22,582,000
	75,607,000	22,579,000	472,808,000	78,603,000	74,985,000	724,582,000

Section 3: Actuarial Valuation Results *(continued)*

Funding Status

The evaluation of the System's funding status is simply the comparison of its actual value of assets to a target value of assets. The System's funding status is calculated using the GASB25 measure:

Funding Status Measure	Target Assets	Actual Assets	Funded Ratio
GASB No. 25 Funding Method Progress	Actuarial Accrued Liability (in thousands)	Actuarial Value of Assets (in thousands)	Actual Assets/ Target Assets

Actuarial Valuation Date	Actuarial Value of Assets[(i)] (a)	Actuarial Accrued Liability (AAL) - Entry Age [(ii)] (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
6/30/96	$ 1,956,715,000	$ 1,987,230,000	$ 30,515,000	98.5%	$ 417,603,000	7.3%
6/30/97	$ 2,238,557,000	$ 2,226,440,000	$ (12,117,000)	100.5%	$ 419,467,000	-2.9%
6/30/98	$ 2,600,547,000	$ 2,409,642,000	$ (12,117,000)	100.5%	$ 470,385,000	-40.6%
6/30/99	$ 3,017,639,000	$ 2,734,548,000	$ (283,091,000)	110.4%	$ 502,325,000	-56.4%
6/30/00	$ 3,427,348,000	$ 3,111,760,000	$ (315,588,000)	110.1%	$ 559,047,000	-56.5%
6/30/01	$ 3,718,198,000	$ 3,451,864,000	$ (266,334,000)	107.7%	$ 634,798,000	-42.0%
6/30/02	$ 3,839,081,000	$ 3,586,250,000	$ (252,831,000)	107.1%	$ 695,259,000	-36.4%
6/30/03	$ 3,864,400,000	$ 4,108,294,000	$ 243,894,000	94.1%	$ 733,296,000	33.3%

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

Section 4: System Assets

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

Summary of Asset Values

	June 30, 2003	June 30, 2002	Percent Change
Actuarial Value	$3,864,399,794	$3,839,081,297	0.7%
Market Value	$3,238,826,044	$3,199,234,414	1.2%
Valuation Assets	$3,628,760,197	$3,364,890,581	7.8%

	Market Value	Actuarial Value	Valuation Assets
Value of Assets at 06/30/02	$3,199,234,414	$3,839,081,297	$3,364,890,581
Contributions:			
Employer	52,840,790	52,840,790	52,840,790
Members	43,699,827	43,699,827	43,699,827
Benefits Paid to Participants	126,021,157	126,021,157	114,714,685
Expenses Paid	14,969,461	14,969,461	14,969,461
Investment Earnings	84,041,631	69,768,498	297,013,144
Value of Assets at 06/30/03	$3,238,826,044	$3,864,399,794	$3,628,760,197
NET RATE OF RETURN (Net of Expenses)	2.17%	1.43%	8.40%

Section 4: System Assets *(continued)*

Development of Actuarial Value of Assets

Background

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

Actuarial Standards

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

Effective July 1, 1995, the Board adopted an asset valuation method that smoothes the deviation of total market return (net of expenses) from the 8 percent return target. This method uses a 5-year period to smooth these deviations. The actuarial value of assets is limited to be no more than 120 percent and no less than 80 percent of Market Value. Effective June 30, 2002, the actuarial value of assets reached the 120 percent corridor limit. The Board has decided to recognize the excess amount over 120 percent as part of the 2001/2002 base and amortize the remaining amount in equal payments over four years.

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

Section 4: System Assets (continued)

Actuarial Value of Assets as of June 30, 2003

Fiscal Year Ending	Total Contributions	Total Benefits	Market Value	Average Value	(1) Total Market Return (Net)	(2) Expected Market Return (Net)	(1-2) Investment Gain (Loss)	Deferred Factor	Deferred Return
through 6/30/94			$ 1,141,165,829				$ 34,243,920	0	$ -
1994-95	$ 69,492,787	$ 63,808,943	1,321,033,733	$ 1,144,007,751	$ 174,184,060	$ 90,153,128	$ 84,030,932	0	$ -
1995-96	592,983,671	68,900,796	2,166,064,778	$ 1,849,592,351	$ 320,948,170	$ 147,967,388	$ 172,980,782	0	$ -
1996-97	71,993,092	75,264,340	2,598,645,719	$ 2,182,684,591	$ 435,852,189	$ 174,614,767	$ 261,237,422	0	$ -
1997-98	73,038,917	82,460,820	3,050,881,721	$ 2,612,534,046	$ 461,657,905	$ 209,002,724	$ 252,655,181	0	$ -
1998-99	77,130,416	89,990,489	3,395,406,934	$ 3,066,925,269	$ 357,385,286	$ 245,354,021	$ 112,031,265	0	$ -
1999-00	72,041,588	99,723,387	3,679,912,856	$ 3,401,769,825	$ 312,187,721	$ 272,141,586	$ 40,046,135	0.2	$ 8,009,227
2000-01	73,322,363	108,998,139	3,432,825,810	$ 3,681,477,927	$ (211,411,270)	$ 294,518,234	$ (505,929,504)	0.4	$ (202,371,802)
2001-02	82,978,888	116,980,868	3,199,234,414	$ 3,437,241,772	$ (199,589,416)	$ 274,979,342	$ (474,568,758)	*	$ (281,035,415)
2002-03	96,540,617	126,021,157	3,238,826,044	$ 3,209,898,370	$ 69,072,170	$ 256,791,870	$ (187,719,700)	0.8	$ (150,175,760)

not restricted

1. Total deferred return	$ (625,573,750)
2. Market Value	3,238,826,044
3. Smoothed Market Value (Item 2 - Item 1)	3,864,399,794
4. Corridor Limit	
a. 80% of Net Market Value	2,591,060,835
b. 120% of Net Market Value	3,886,591,253
5. Actuarial Value (item 3 after corridor applied)	3,864,399,794
6. Amounts Excluded from Valuation Reserves (Before Transfer)	
a. 1% Statutory Minimum	$ (37,399,302)
b. 1.5% Board Policy Reserve	(56,098,953)
c. Retiree health and death benefit reserve	(15,273,658)
d. Amount over reserved benefits (Before Transfer)	(80,274,526)
7. Valuation Reserves (Item 5 + Item 6)	$ 3,675,353,355
8. Balance of transfer to member COLA reserves (Before Transfer)	$ (47,670,159)
9. (Surplus)/ Deficit for Withdrawn Employers (Preliminary)	1,077,000
10. Net Valuation Reserve (Item 7 + Item 8 + Item 9)	$ 3,628,760,197

* The remaining investment gain/loss for 2001/2002 plan year at June 30, 2003, after taking into account the 120% corridor on June 30, 2002 is $374,713,887 and is amortized over 4 years in equal payments.

Section 4: System Assets *(continued)*

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 that need to be funded by the Employer and Members in the future.

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

System assets are equal to the sum of:

- The assets currently available to pay benefits,

- The present value of future contributions expected to be made by current active members, and

- The present value of future contributions expected to be made by the employer.

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

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

Member Category	Contribution Rate	Annual Amount
County		
Miscellaneous Tier 1	14.58%	$10,770,000
Miscellaneous Tier 2	10.25%	$2,315,000
Miscellaneous Tier 3	12.41%	$56,181,000
Safety Tier 1	27.23%	$21,221,000
Safety Tier 2	23.08%	$17,307,000
Special Districts		
Miscellaneous Tier 1	11.26%	$197,000
Miscellaneous Tier 3	11.31%	$2,281,000
Safety Tier 1	16.17%	$107,000

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 that will not be funded by the future Entry Age Normal Cost contributions is the

Section 4: System Assets *(continued)*

Unfunded Actuarial Accrued Liability (UAAL). The UAAL arises from prior contributions that were less than the current Normal Cost. This usually results from benefits and assumption changes and the net effect of prior gains and losses. If the employer had always contributed the current Normal Cost, if there were no prior benefit or assumption changes and if actual experience exactly matched the actuarial assumptions, the Normal Cost would be sufficient to fund all benefits and there would be no UAAL.

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

Member Category	Contribution Rate	Annual Amount*
County		
Miscellaneous Tier 1	1.75%	$1,293,000
Miscellaneous Tier 2	1.75%	$395,000
Miscellaneous Tier 3	1.75%	$7,921,000
Safety Tier 1	4.59%	$3,577,000
Safety Tier 2	4.59%	$3,442,000
Special Districts		
Miscellaneous Tier 1	7.11%	$124,000
Miscellaneous Tier 3	7.11%	$1,434,000
Safety Tier 1	11.25%	$75,000

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

Section 4: System Assets *(continued)*

Actuarial Balance Sheet as of June 30, 2003

ASSETS

	Basic	COL	Total
1. Total Assets at Actuarial Value	$2,983,157,577	$1,353,216,385	$4,336,373,962
2. Present Value of Future Member Contributions	$209,392,048	$43,606,389	$252,998,437
3. Present Value of Future Employer Contributions on Account of:			
a) Normal Cost	$723,810,024	$132,491,222	$856,301,246
b) Unfunded Actuarial Accrued Liability	$280,903,671	($37,009,407)	$243,894,264
4. Total Actuarial Assets	$4,197,263,320	$1,492,304,589	$5,689,567,909

LIABILITIES

	Basic	COL	Total
5. Present Value of Retirement Allowances Payable to Present Retired Members	$818,048,633	$666,289,700	$1,484,338,333
6. Present Value of Retirement Allowances to be Granted for:			
a) Service Retirement	$2,489,170,833	$769,769,620	$3,258,940,453
b) Disability Retirement	$155,433,867	$44,649,060	$200,082,927
7. Present Value of Death Benefits to be Granted for:			
a) Duty Deaths	$2,759,097	$835,939	$3,595,036
b) Non-duty Death	$34,666,322	$7,914,980	$42,581,302
8. Present Value of Members' Contributions to be Returned Upon Withdrawal Before Retirement	$37,240,961	$2,845,290	$40,086,251
9. Amount over Reserved Benefits	$51,144,526	$0	$51,144,526
10. Retiree Health Insurance Reserve	$2,425,028	$0	$2,425,028
11. Retiree Death Benefit Reserve	$12,848,630	$0	$12,848,630
12. Reserve for Interest Fluctuation			
1% Statutory Minimum	$37,399,302	$0	$37,399,302
1.5% Board Policy Reserve	$56,098,953	$0	$56,098,953
13. Surplus/ (Deficit) for Withdrawn Employers	($1,077,000)	$0	($1,077,000)
14. Payables	$501,104,168	$0	$501,104,168
15. Total Actuarial Liabilities	$4,197,263,320	$1,492,304,589	$5,689,567,909

Section 4: System Assets *(continued)*

System Assets – Reserve Accounting

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

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

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

We used the following process to establish the additional excess earnings allocation this year:

- Adjust earnings for the change in the Market Stabilization Reserve;

- Increase the Reserve for Interest Fluctuations to 2.5 percent of the System's gross assets before any other excess earnings transfers;

- Allocate excess earnings to provide for the 2003/2004 retiree health and dental benefits; and

- Allocate the remaining excess earnings to the Amount over Reserved Benefits.

However, we assumed the Board would not transfer any excess earnings to maintain employer and member contribution rates at the same level as those calculated in the June 30, 2002, valuation.

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

The following tables provide the specific amounts allocated for various purposes and the reserve balances as of June 30, 2003.

Section 4: System Assets *(continued)*

Market Value Accounting/ Smoothed Market Value of Reserves
Statement of Reserves
June 30, 2003 and 2002 (Net of Liabilities)

Recommended Based on 2.5 percent Contingency Reserve

	6/30/2003	6/30/2002
Employee Reserves	$ 553,425,220	$ 491,404,774
Employer Reserves	1,719,122,591	1,607,762,010
Retiree Reserve	1,402,805,544	1,320,493,562
Subtotal (Valuation Reserves)	$ 3,675,353,355	$ 3,419,660,346
Reserve for Interest Fluctuations		
1% Statutory Minimum	$ 37,399,302	$ 36,478,413
1.5% Board Policy Reserve	56,098,953	54,717,620
Retiree Health Benefit Reserve	2,425,028	1,739,075
Death Benefit Reserve	12,848,630	12,321,064
Ventura Reserve	29,130,000	121,249,698
Amount over Reserved Benefits	51,144,526	192,915,081
Subtotal	$ 189,046,439	$ 419,420,951
Total Allocated Reserves	$ 3,864,399,794	$ 3,839,081,297
Market Stabilization Reserve	$ (625,573,750)	$ (639,846,883)
Net Assets Held In Trust for Pension Benefits	$ 3,238,826,044	$ 3,199,234,414
Liabilities netted from above	$ 501,104,168	$ 448,606,888
Gross Assets	$ 3,739,930,212	$ 3,647,841,302
Net Actuarial Value Assets	$ 3,864,399,794	$ 3,839,081,297
Net Valuation Assets:		
From Above	$ 3,675,353,355	$ 3,419,660,346
For Member Contribution Offset*	$ (47,670,159)	$ (50,681,765)
Net	3,627,683,197	3,368,978,581
ESTIMATED (Surplus)/ Deficit for Withdrawn Employers	$ 1,077,000	$ (4,088,000)
Final Valuation Assets	$ 3,628,760,197	$ 3,364,890,581
* Balance remaining from prior year:	$ 47,670,159	

Section 4: System Assets *(continued)*

Market Value Accounting/ Smoothed Market Value of Reserves
Change in Reserves
2002/2003 Fiscal Year
June 30, 2003

Recommended Based on 2.5 percent Contingency Reserve

	Balance at 6/30/2002	2002 - 2003 Interest*	2002 - 2003 Contributions	2002 - 2003 Benefits	2002 - 2003 Transfers	Balance at 6/30/2003	RECOMMENDED Application of 6/30/03 Transfer Policy		Adjusted Balance at 6/30/2003
Employee Reserves	491,404,774	39,502,078	43,699,827	(2,906,302)	(18,275,157)	553,425,220	-		553,425,220
Employer Reserves	1,607,762,010	127,937,996	41,288,865	(82,641)	(57,783,639)	1,719,122,591	-	**	1,719,122,591
Retiree Reserve	1,320,493,561	106,427,004	-	(111,725,742)	87,610,721	1,402,805,544	-		1,402,805,544
Subtotal	3,419,660,345	273,867,078	84,988,692	(114,714,685)	11,551,925	3,675,353,355	-		3,675,353,355
Reserve for Interest Fluctuations									
1% Statutory Minimum	36,478,413	920,889	-	-	-	37,399,302	-		37,399,302
1.5% Board Policy Reserve	54,717,620	1,381,333	-	-	-	56,098,953	-		56,098,953
Retiree Health Benefit Reserve	1,739,075	-	11,551,925	(10,865,972)	-	2,425,028	11,458,972	***	2,425,028
Death Benefit Reserve	12,321,064	968,066	-	(440,500)	-	12,848,630	-		12,848,630
Ventura Reserve	121,249,698	(92,119,698)	-	-	-	29,130,000	-		29,130,000
Amount over Reserved Benefits	192,915,082	(130,218,631)	-	-	(11,551,925)	51,144,526	(11,458,972)		51,144,526
Subtotal	419,420,952	(219,068,041)	11,551,925	(11,306,472)	(11,551,925)	189,046,439	-		189,046,439
Total Allocated Reserves	3,839,081,297	54,799,037	96,540,617	(126,021,157)	-	3,864,399,794	-		3,864,399,794
Market Stabilization Reserve	(639,846,883)	14,273,133	-	-	-	(625,573,750)	-		(625,573,750)
Net Assets	3,199,234,414	69,072,170	96,540,617	(126,021,157)	-	3,238,826,044	-		3,238,826,044

* Preliminary Estimates and Subject to Change by SCERS.
** Preliminary portion to offset future member contributions: $;   Employer: ;   Balance: 39,685,554 $ 39,685,554
*** Held in Amount over Reserved Benefits to offset employer contribution to 401(h) Account. Total required 401(h) balance at 6/30/03 is: $ 13,884,000

Note: Change in Unallocated Excess Earnings: Unallocated excess earnings as of 6/30/2002 = $ 166,743,056

     Unallocated excess earnings as of 6/30/2003 = $ 39,685,554

Section 4: System Assets *(continued)*

System Accounting Assets, Reserves and Other Liabilities As of June 30, 2003

Assets

Cash	$ 3,229,875
Short-term Investments	153,928,717
Accounts Receivable	40,023,023
Investments @ Market Value	3,141,991,787
Real estate mortgage loans	0
Real estate equity	400,722,283
Equipment and fixtures (net of depreciation)	34,527
Prepaid Dental	0
Total Assets	**$ 3,739,930,212**
Accounts Payable & Other Current Liabilities	501,104,168
Assets Net of Payable and Current Liabilities	**$ 3,238,826,044**

Reserves and Liabilities

Employee Reserves	$ 553,425,220
Employer Reserves	1,719,122,591
Retiree Reserve	1,402,805,544
Subtotal (Valuation Reserves)	$3,675,353,355
Reserve for Interest Fluctuations	-
1% Statutory Minimum	$ 37,399,302
1.5% Board Policy Reserve	56,098,953
Retiree Health Benefit Reserve	2,425,028
Retiree Death Benefit Reserve	12,848,630
Ventura Reserve	29,130,000
Amount over Reserved Benefits	51,144,526
Subtotal	$ 189,046,439
Total Allocated Reserves (Total Actuarial Value)	$3,864,399,794
Market Stabilization Reserve	(625,573,750)
Accounts Payable & Other Current Liabilities	501,104,168
	$ (124,469,582)
Total Reserves & Liabilities	$ 3,739,930,212
Amounts Transferred to:	
Member COL Contributions	$ -
Employer Reserves	$ -

Section 4: System Assets *(continued)*

Historical Rates of Return

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

	YIELD		
Year-Ended	**Actuarial Value**	**Market Value**	**Assumed Rate of Return**
December 31, 1988		13.9%	9.50%
December 31, 1989		18.3%	9.00%
June 30, 1990[i]		1.2%[ii]	4.50%[ii]
June 30, 1991[i]	6.6%	6.9%	9.00%
June 30, 1992[i]	6.1%	8.7%	9.00%
June 30, 1993	7.8%	8.1%	8.75%
June 30, 1994	6.0%	1.5%	8.50%
June 30, 1995	7.7%	15.4%	8.00%
June 30, 1996	13.7%	17.2%	8.00%
June 30, 1997	14.5%	20.1%	8.00%
June 30, 1998	16.5%	17.6%	8.00%
June 30, 1999	16.5%	11.7%	8.00%
June 30, 2000	14.5%	9.2%	8.00%
June 30, 2001	9.5%	-5.7%	8.00%
June 30, 2002	8.2%	-5.8%	8.00%
June 30, 2003	8.4%	2.2%	8.00%
Annualized average over 13 years	10.4%	7.9%	8.25%
Annualized average over 15½ years	–	8.8%	8.41%

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[i] *Reserves credited with 9 percent interest from the Unreserved account. For the year ended June 30, 1992, reserves were credited with 4.5 percent interest for the first 6 months, and 4.0 percent for the second 6 months.*

[ii] *Six month period only.*

Section 4: System Assets (continued)

Funding History

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

Actuarial Valuation Date	(1) AAL	(2) Actuarial Value of Assets	(3) UAAL	(4) (2)/(1) Funding Method Progress Ratio	(5) Investment Return Assumption	(6) Net Return on Actuarial Value of Assets	(7) Employer Contribution Rate	(8) Average Member Contribution Rate	(9) Prior Year Total Contributions to System	(10) Prior Year Benefit Payments	(11) Prior Year Free Cash Flow (9)-(10)
June 30, 1991	$1,206,889	$895,611	$311,278	74.2%	9.00%	6.60%	12.60%	-3.73%	$51,671	-$39,763	$11,908
June 30, 1992[1]	$1,327,407	$959,560	$367,847	72.3%	8.75%	6.07%	12.72%	4.47%	$54,971	$45,678	$9,293
June 30, 1993[2]	$1,501,988	$1,039,025	$461,884	69.2%	8.50%	7.83%	13.61%	5.86%	$55,522	$51,338	$4,184
June 30, 1994[3]	$1,634,773	$1,106,922	$533,659	67.7%	8.00%	5.98%	16.27%	6.16%	$63,691[4]	$58,095	$5,596
June 30, 1995[5]	$1,835,864	$1,767,064	$68,800	96.3%	8.00%	7.68%	10.81%	6.48%	$602,527	$63,809	$538,718
June 30, 1996	$1,987,230	$1,956,715	$30,515	98.5%	8.00%	13.71%	10.13%	6.43%	$59,949	$68,901	$(8,952)
June 30, 1997	$2,226,440	$2,238,557	$(12,117)	100.5%	8.00%	14.50%	9.83%	6.29%	$71,993	$75,264	$(3,271)
June 30, 1998	$2,409,642	$2,600,547	$(190,905)	107.9%	8.00%	16.47%	8.07%	5.52%	$73,039	$82,461	$(9,422)
June 30, 1999	$2,734,548	$3,017,639	$(283,091)	110.4%	8.00%	16.52%	6.77%	5.43%	$77,130	$89,990	$(12,860)
June 30, 2000	$3,111,760	$3,427,348	$(315,588)	110.1%	8.00%	14.46%	6.86%	5.42%	$72,042	$99,723	$(27,681)
June 30, 2001	$3,451,864	$3,718,198	$(266,334)	107.7%	8.00%	9.52%	7.86%	5.58%	$73,322	$108,998	$(35,676)
June 30, 2002[6]	$3,586,250	$3,839,081	$(252,831)	107.1%	8.00%	8.20%	7.92%	5.81%	$82,979	$116,980	$(34,001)
June 30, 2003	$4,108,294	$3,864,400	$243,894	94.1%	8.00%	8.40%	17.75%	4.24%	$96,541	$126,021	$(29,480)

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

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

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

[4] The County begins prepayment of contribution during this year.

[5] Includes $533,034,360 of pension obligation bonds issued on July 5, 1995.

[6] Includes enhanced benefits under Sections 31676.14 and 831664.1, and ad-hoc COLA increase under Section 31681.55.

Appendices

A.   Summary of Plan Provisions

The Sacramento County Employees' Retirement System ("SCERS" or the "System") is the administrator of a multiple-employer, cost-sharing public employee retirement system which operates under the County Employees Retirement Law of 1937. The System was created by resolution of the Board of Supervisors on July 1, 1941, to provide retirement, disability, and death benefits for qualified employees of the Sacramento County and participating special districts.

Membership

Membership in SCERS consists of the following categories:

- Safety First Tier – includes employees whose principal duties consist of law enforcement or fire suppression work or who occupy positions designated by law as safety positions who have a membership date prior to June 25, 1995.

- Safety Second Tier – includes employees who principal duties consist of law enforcement or fire suppression work or who occupy positions designated by law as safety positions who have a membership date on or after June 25, 1995.

- Miscellaneous First Tier – includes all members other than safety who have a membership date prior to September 27, 1981.

- Miscellaneous Second Tier – includes all members other than safety who have a membership date on or after September 27, 1981 and prior to June 27, 1993 who elected not to become members of miscellaneous third tier.

- Miscellaneous Third Tier – includes all members other than safety who have a membership date on or after June 27, 1993 and those miscellaneous second tier members who elected to become members of this class.

Pension Benefits

The System's benefits are established by statutes and provide for retirement, death and disability benefits. Effective for retirements after June 30, 2003, the Board of Supervisors adopted the benefits under Sections 31676.14 and 31664.1 of the 1937 County Act. The major provisions are briefly summarized below and should not be used to determine pension benefits.

Eligibility

All permanent full-time or part-time employees of the County or member districts are eligible to participate in the System.

Appendices

A.   Summary of Plan Provisions *(continued)*

Vesting

A member is vested after completion of 5 years of credited service.

Final Average Salary (FAS)

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

Return of Contributions

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

Service Retirement Benefit

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

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

Age	Miscellaneous	Safety
50	1.48%	3.00%
55	1.95%	3.00%
60	2.44%	3.00%
65 and over	2.61%	3.00%

Appendices

A.   Summary of Plan Provisions *(continued)*

Disability Benefit

Nonservice Connected Disability

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

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

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

Service Connected Disability

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

Death Benefit

Before Retirement

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

If a member dies while eligible for service retirement or non-service connected disability, the spouse receives 60 percent 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 percent of the member's final average salary.

After Retirement

If a member dies after retirement, a $2,000 lump burial allowance is paid to the beneficiary or estate.

If the retirement was for service connected disability, 100 percent 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 and the member elected the unmodified option, 60 percent of the member's allowance is continued to the spouse for life.

Appendices

A.   Summary of Plan Provisions *(continued)*

Maximum Benefit

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

Cost of Living

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

A cost-of-living bank is available to all members, which allows the cost-of-living increase to exceed CPI if in previous years the cost-of-living increase has been limited by the maximum increase.

Contribution Rates

Employee Contribution Rates

Basic member contribution rates are based on the age nearest birthday at entry into the System (single rate for entrants after January 1, 1975). The rates are such as to provide an average annuity at age 55 equal to 1/240 of FAS for Miscellaneous members paying full rates and at age 50 equal to 1/100 of FAS for Safety members paying full rates. For members whose benefit is integrated with Social Security, the above contributions are reduced by one-third of that portion of such contribution payable with respect to the first $350 of monthly salary. Cost of living rates are designed to pay for one-quarter of the future increases in the cost of living. Member contributions are refundable upon termination from the System.

Employer Contribution Rates

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

Changes in Plan Provisions

Effective July 1, 2003, the Board of Supervisors adopted benefits under Section 31676.14 for Miscellaneous Members and 31664.1 for Safety Members. The County adopted these improvements for all service while the Districts adopted these improvements for future service only.

Appendices

B.   Actuarial Assumptions

Economic Actuarial Assumptions

Some changes to the economic assumptions were made to reflect changing consensus on the direction of the economic factors. and The noneconomic assumptions were not changed.

Inflation – We decreased the inflation assumption from 4.25 percent to 3.0 percent. This reflects changes in expectations for the future general inflationary increases (that affects investment return and automatic COLA increases for retirees) and the expectation that California inflation rates will begin to approach national inflation rates.

Salary Increase – The merit and longevity increase of 1.50 percent was reviewed as part of our June 30, 2001, triennial experience study. For the June 30, 2003, valuation, we introduce a wage inflation assumption of 1.25 percent above general inflation. Combined with the inflation assumption of 3.0 percent and merit and longevity increase of 1.50 percent, we will maintain the total salary increase assumption of 5.75 percent.

Investment Return – Utilizing an approach that recognizes the relationships between your asset classes to develop a reasonable range of assumptions, with the related probability that the return would be realized, we developed a recommended investment return assumption. We believe this approach, while completely different from our prior approach, will be better for developing forward-looking, long-term projections. Based on this approach, we recommend you maintain an 8.0 percent investment return assumption for the June 30, 2003, valuation.

Appendices

B.   Actuarial Assumptions *(continued)*

Recognition of Deferred Investment Losses Carried over from June 30, 2002

- In developing the actuarial (smoothed) Assets, the Board smoothes the return that is above or below the assumed rate (currently 8.0 percent per annum) over five years. Normally one-twentieth of the losses from the most recent plan year will have to be recognized immediately. The remaining 80 percent will be recognized over the next four years. The System's portfolio earned less than 8.0 percent during the last few years and those losses will have to be recognized during the next several years.

- The Board adopted our recommendation to implement an 80-120 percent market value corridor so that the actuarial and accounting reserves would not deviate too significantly from the actual market value.

- As of June 30, 2002, $644,788,002 in market losses have yet to be recognized.

- We propose that the $644,788,002 loss be amortized in accordance with the schedule already in place and that the 2002 amortization base, after immediately recognizing $4,941,119 in excess of the 120 percent corridor, be amortized over four years.

Appendices

B.   Actuarial Assumptions *(continued)*

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

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

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

Components

The components that are included in the noneconomic assumptions are:

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.

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

Appendices

B.   Actuarial Assumptions *(continued)*

Separation from Active Service

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

Postretirement Mortality

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

Mortality Basis for Members' Basic Contribution Rates

We have calculated member contribution rates utilizing a sex-independent mortality basis under Sections 31676.14 and 31497.3 for Miscellaneous members, and Section 31664.1 for Safety members. The mortality table is the 1994 Group Annuity Mortality Table for males with a three-year setback for Miscellaneous Members and with no setback for Safety Members. In our opinion, these tables can reasonably be expected to represent the aggregate future mortality for each group and to provide an adequate and equitable mortality basis for determining member contribution rates.

Appendices

B. Actuarial Assumptions *(continued)*

Assumptions

Valuation Interest Rate	8.00%
Inflation Assumption	3.00%
COLA	
Tier 1	3.50%
Tier 2 Safety	2.00%
Tier 3	2.00%
Interest Rate Credited To Active Member Accounts	8.00%
Wage Inflation	4.25%
Post-Retirement Mortality	
(a) Service	
Miscellaneous Males	1994 Group Annuity Mortality Table set back 2 years (Male)
Miscellaneous Females	1994 Group Annuity Mortality Table with no setback (Female)
Safety and Probation Members	1994 Group Annuity Mortality Table with no setback (Male)
(b) Beneficiaries	
Miscellaneous Males	1994 Group Annuity Mortality Table set back 2 years (Male)
Miscellaneous Females	1994 Group Annuity Mortality Table with no setback (Female)
Safety and Probation Members	1994 Group Annuity Mortality Table with no setback (Female)
(c) Disability	
Miscellaneous	1981 General Disability Mortality Table with no setback
Safety	1981 Safety Disability Mortality Table set back 1 year
(d) For Employee Contribution Rate Purposes	
Miscellaneous	1994 Group Annuity Mortality Table set back 3 years (Male)
Safety	1994 Group Annuity Mortality Table with no setback (Male)
Pre-Retirement Mortality	Based upon the Experience Analysis as of 06/30/2001
Withdrawal Rates	Based upon the Experience Analysis as of 06/30/2001
Disability Rates	Based upon the Experience Analysis as of 06/30/2001
Service Retirement Rates	Based upon the Experience Analysis as of 06/30/2001
Salary Scales	Total increases of 5.75% per year reflecting approximately 4.25% for wage inflation and approximately 1.5% for merit and longevity
Value of Assets for Contribution Purposes	Actuarial Value as described in System Asset Section

Appendices

B.   Actuarial Assumptions *(continued)*

Assumptions *(continued)*

Percentage of Members Married at Retirement	70% for male members; 50% for female members.
Members Eligible for Reciprocal Benefits	60%
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 19 years from the June 30, 2003, valuation date.
Average Entry Age (for Member Rates)	36 for Miscellaneous members; 29 for Safety members.

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Appendices

B.　Actuarial Assumptions *(continued)*

Probabilities of Separation
Miscellaneous Male Members - Tier 1

Age	SVC RET	WITH (0<SVC<1)	WITH (1<SVC<2)	WITH (2<SVC<3)	WITH (3<SVC<4)	WITH (4<SVC<5)	WITH (SVC>5)	TERM Vested	Ordinary Disab.	Duty Disab.	Ordinary Death	Duty Death
<=20	0.0000	0.1040	0.1040	0.1040	0.1040	0.1040	0.1040	0.0150	0.0000	0.0001	0.0005	0.0001
21	0.0000	0.1010	0.1010	0.1010	0.1010	0.1010	0.0965	0.0150	0.0000	0.0001	0.0005	0.0001
22	0.0000	0.0980	0.0980	0.0980	0.0980	0.0980	0.0891	0.0150	0.0000	0.0001	0.0005	0.0001
23	0.0000	0.0950	0.0950	0.0950	0.0950	0.0950	0.0796	0.0150	0.0000	0.0001	0.0006	0.0001
24	0.0000	0.0920	0.0920	0.0920	0.0920	0.0920	0.0705	0.0150	0.0000	0.0001	0.0006	0.0001
25	0.0000	0.0900	0.0900	0.0900	0.0900	0.0900	0.0618	0.0150	0.0025	0.0001	0.0006	0.0001
26	0.0000	0.0850	0.0850	0.0850	0.0850	0.0850	0.0534	0.0150	0.0025	0.0001	0.0007	0.0001
27	0.0000	0.0800	0.0800	0.0800	0.0800	0.0800	0.0454	0.0150	0.0025	0.0001	0.0007	0.0001
28	0.0000	0.0750	0.0750	0.0750	0.0750	0.0750	0.0399	0.0150	0.0025	0.0001	0.0007	0.0001
29	0.0000	0.0700	0.0700	0.0700	0.0700	0.0700	0.0340	0.0150	0.0025	0.0001	0.0008	0.0001
30	0.0000	0.0660	0.0660	0.0660	0.0660	0.0660	0.0343	0.0150	0.0025	0.0001	0.0008	0.0001
31	0.0000	0.0620	0.0620	0.0620	0.0620	0.0620	0.0347	0.0150	0.0025	0.0001	0.0008	0.0001
32	0.0000	0.0570	0.0570	0.0570	0.0570	0.0570	0.0351	0.0150	0.0025	0.0001	0.0009	0.0001
33	0.0000	0.0530	0.0530	0.0530	0.0530	0.0530	0.0354	0.0150	0.0025	0.0001	0.0009	0.0001
34	0.0000	0.0480	0.0480	0.0480	0.0480	0.0480	0.0358	0.0150	0.0025	0.0001	0.0009	0.0001
35	0.0000	0.0460	0.0460	0.0460	0.0460	0.0460	0.0361	0.0125	0.0025	0.0002	0.0009	0.0001
36	0.0000	0.0440	0.0440	0.0440	0.0440	0.0440	0.0401	0.0125	0.0025	0.0002	0.0009	0.0001
37	0.0000	0.0410	0.0410	0.0410	0.0410	0.0410	0.0425	0.0125	0.0025	0.0003	0.0009	0.0001
38	0.0000	0.0380	0.0380	0.0380	0.0380	0.0380	0.0347	0.0125	0.0025	0.0004	0.0009	0.0001
39	0.0000	0.0350	0.0350	0.0350	0.0350	0.0350	0.0276	0.0125	0.0025	0.0005	0.0010	0.0001
40	0.0000	0.0290	0.0290	0.0290	0.0290	0.0290	0.0206	0.0125	0.0025	0.0006	0.0010	0.0001
41	0.0000	0.0262	0.0262	0.0262	0.0262	0.0262	0.0146	0.0125	0.0025	0.0007	0.0011	0.0001
42	0.0000	0.0235	0.0235	0.0235	0.0235	0.0235	0.0096	0.0125	0.0025	0.0007	0.0012	0.0001
43	0.0000	0.0208	0.0208	0.0208	0.0208	0.0208	0.0074	0.0125	0.0025	0.0009	0.0012	0.0001
44	0.0000	0.0181	0.0181	0.0181	0.0181	0.0181	0.0055	0.0125	0.0025	0.0010	0.0013	0.0001
45	0.0000	0.0166	0.0166	0.0166	0.0166	0.0166	0.0037	0.0108	0.0025	0.0011	0.0015	0.0001
46	0.0000	0.0148	0.0148	0.0148	0.0148	0.0148	0.0035	0.0092	0.0029	0.0013	0.0016	0.0001
47	0.0000	0.0129	0.0129	0.0129	0.0129	0.0129	0.0031	0.0075	0.0034	0.0014	0.0017	0.0001
48	0.0000	0.0111	0.0111	0.0111	0.0111	0.0111	0.0027	0.0058	0.0037	0.0017	0.0019	0.0001
49	0.0000	0.0102	0.0102	0.0102	0.0102	0.0102	0.0024	0.0042	0.0040	0.0020	0.0020	0.0001
50	0.0418	0.0102	0.0102	0.0102	0.0102	0.0102	0.0021	0.0042	0.0045	0.0022	0.0023	0.0001
51	0.0359	0.0097	0.0097	0.0097	0.0097	0.0097	0.0018	0.0042	0.0045	0.0025	0.0025	0.0001
52	0.0230	0.0092	0.0092	0.0092	0.0092	0.0092	0.0016	0.0042	0.0045	0.0028	0.0028	0.0001
53	0.0445	0.0087	0.0087	0.0087	0.0087	0.0087	0.0014	0.0042	0.0045	0.0029	0.0031	0.0001
54	0.0596	0.0082	0.0082	0.0082	0.0082	0.0082	0.0011	0.0042	0.0045	0.0031	0.0035	0.0001
55	0.0840	0.0078	0.0078	0.0078	0.0078	0.0078	0.0000	0.0000	0.0045	0.0033	0.0039	0.0001
56	0.1022	0.0074	0.0074	0.0074	0.0074	0.0074	0.0000	0.0000	0.0045	0.0035	0.0043	0.0001
57	0.1801	0.0069	0.0069	0.0069	0.0069	0.0069	0.0000	0.0000	0.0045	0.0038	0.0048	0.0001
58	0.2501	0.0064	0.0064	0.0064	0.0064	0.0064	0.0000	0.0000	0.0045	0.0041	0.0053	0.0001
59	0.2790	0.0059	0.0059	0.0059	0.0059	0.0059	0.0000	0.0000	0.0045	0.0044	0.0060	0.0001
60	0.3066	0.0055	0.0055	0.0055	0.0055	0.0055	0.0000	0.0000	0.0045	0.0048	0.0068	0.0001
61	0.3379	0.0050	0.0050	0.0050	0.0050	0.0050	0.0000	0.0000	0.0045	0.0053	0.0076	0.0001
62	0.3784	0.0050	0.0050	0.0050	0.0050	0.0050	0.0000	0.0000	0.0045	0.0059	0.0086	0.0001
63	0.3938	0.0045	0.0045	0.0045	0.0045	0.0045	0.0000	0.0000	0.0045	0.0065	0.0097	0.0001
64	0.3979	0.0045	0.0045	0.0045	0.0045	0.0045	0.0000	0.0000	0.0045	0.0071	0.0109	0.0001
65	0.4169	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0045	0.0077	0.0123	0.0001
66	0.4478	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0045	0.0083	0.0139	0.0001
67	0.4788	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0045	0.0090	0.0156	0.0001
68	0.5472	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0045	0.0097	0.0175	0.0001
69	0.6840	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0045	0.0104	0.0194	0.0001
70	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Appendices

B.   Actuarial Assumptions *(continued)*

Probabilities of Separation
Miscellaneous Female Members - Tier 1

Age	SVC RET	WITH (0<SVC<1)	WITH (1<SVC<2)	WITH (2<SVC<3)	WITH (3<SVC<4)	WITH (4<SVC<5)	WITH (SVC>5)	TERM Vested	Ordinary Disab.	Duty Disab.	Ordinary Death	Duty Death
<=20	0.0000	0.1250	0.1250	0.1250	0.1250	0.1250	0.1250	0.0150	0.0000	0.0001	0.0003	0.0000
21	0.0000	0.1150	0.1150	0.1150	0.1150	0.1150	0.1150	0.0150	0.0000	0.0000	0.0003	0.0000
22	0.0000	0.1060	0.1060	0.1060	0.1060	0.1060	0.1060	0.0150	0.0000	0.0000	0.0003	0.0000
23	0.0000	0.0980	0.0980	0.0980	0.0980	0.0980	0.0980	0.0150	0.0000	0.0000	0.0003	0.0000
24	0.0000	0.0930	0.0930	0.0930	0.0930	0.0930	0.0930	0.0150	0.0000	0.0000	0.0003	0.0000
25	0.0000	0.0900	0.0900	0.0900	0.0900	0.0900	0.0858	0.0150	0.0001	0.0001	0.0003	0.0000
26	0.0000	0.0880	0.0880	0.0880	0.0880	0.0880	0.0786	0.0150	0.0001	0.0001	0.0003	0.0000
27	0.0000	0.0860	0.0860	0.0860	0.0860	0.0860	0.0714	0.0150	0.0001	0.0001	0.0003	0.0000
28	0.0000	0.0840	0.0840	0.0840	0.0840	0.0840	0.0614	0.0150	0.0001	0.0001	0.0003	0.0000
29	0.0000	0.0820	0.0820	0.0820	0.0820	0.0820	0.0520	0.0150	0.0001	0.0010	0.0004	0.0000
30	0.0000	0.0759	0.0759	0.0759	0.0759	0.0759	0.0432	0.0150	0.0002	0.0001	0.0004	0.0000
31	0.0000	0.0711	0.0711	0.0711	0.0711	0.0711	0.0351	0.0150	0.0002	0.0001	0.0004	0.0000
32	0.0000	0.0663	0.0663	0.0663	0.0663	0.0663	0.0276	0.0150	0.0002	0.0001	0.0004	0.0000
33	0.0000	0.0615	0.0615	0.0615	0.0615	0.0615	0.0210	0.0150	0.0003	0.0001	0.0005	0.0000
34	0.0000	0.0567	0.0567	0.0567	0.0567	0.0567	0.0149	0.0150	0.0003	0.0001	0.0005	0.0000
35	0.0000	0.0479	0.0479	0.0479	0.0479	0.0479	0.0113	0.0125	0.0002	0.0002	0.0005	0.0000
36	0.0000	0.0452	0.0452	0.0452	0.0452	0.0452	0.0101	0.0125	0.0003	0.0002	0.0006	0.0000
37	0.0000	0.0408	0.0408	0.0408	0.0408	0.0408	0.0086	0.0125	0.0004	0.0002	0.0006	0.0000
38	0.0000	0.0364	0.0364	0.0364	0.0364	0.0364	0.0073	0.0125	0.0004	0.0002	0.0006	0.0000
39	0.0000	0.0328	0.0328	0.0328	0.0328	0.0328	0.0063	0.0125	0.0005	0.0002	0.0007	0.0000
40	0.0000	0.0293	0.0293	0.0293	0.0293	0.0293	0.0065	0.0125	0.0010	0.0002	0.0008	0.0000
41	0.0000	0.0275	0.0275	0.0275	0.0275	0.0275	0.0055	0.0125	0.0014	0.0002	0.0008	0.0000
42	0.0000	0.0258	0.0258	0.0258	0.0258	0.0258	0.0046	0.0125	0.0017	0.0003	0.0009	0.0000
43	0.0000	0.0241	0.0241	0.0241	0.0241	0.0241	0.0041	0.0125	0.0023	0.0003	0.0009	0.0000
44	0.0000	0.0224	0.0224	0.0224	0.0224	0.0224	0.0035	0.0125	0.0029	0.0003	0.0010	0.0000
45	0.0000	0.0215	0.0215	0.0215	0.0215	0.0215	0.0029	0.0100	0.0036	0.0004	0.0010	0.0000
46	0.0000	0.0206	0.0206	0.0206	0.0206	0.0206	0.0029	0.0100	0.0044	0.0004	0.0011	0.0000
47	0.0000	0.0197	0.0197	0.0197	0.0197	0.0197	0.0029	0.0100	0.0050	0.0004	0.0012	0.0000
48	0.0000	0.0188	0.0188	0.0188	0.0188	0.0188	0.0029	0.0100	0.0050	0.0006	0.0013	0.0000
49	0.0000	0.0179	0.0179	0.0179	0.0179	0.0179	0.0029	0.0100	0.0050	0.0007	0.0014	0.0000
50	0.0702	0.0184	0.0184	0.0184	0.0184	0.0184	0.0026	0.0070	0.0050	0.0008	0.0015	0.0000
51	0.0491	0.0175	0.0175	0.0175	0.0175	0.0175	0.0026	0.0070	0.0050	0.0010	0.0017	0.0000
52	0.0451	0.0165	0.0165	0.0165	0.0165	0.0165	0.0026	0.0070	0.0050	0.0012	0.0019	0.0000
53	0.0726	0.0155	0.0155	0.0155	0.0155	0.0155	0.0023	0.0070	0.0050	0.0013	0.0021	0.0000
54	0.1172	0.0146	0.0146	0.0146	0.0146	0.0146	0.0023	0.0070	0.0050	0.0015	0.0022	0.0000
55	0.1085	0.0137	0.0137	0.0137	0.0137	0.0137	0.0000	0.0000	0.0050	0.0017	0.0025	0.0000
56	0.1104	0.0127	0.0127	0.0127	0.0127	0.0127	0.0000	0.0000	0.0050	0.0018	0.0028	0.0000
57	0.1309	0.0113	0.0113	0.0113	0.0113	0.0113	0.0000	0.0000	0.0050	0.0020	0.0031	0.0000
58	0.2140	0.0098	0.0098	0.0098	0.0098	0.0098	0.0000	0.0000	0.0050	0.0019	0.0036	0.0000
59	0.2388	0.0088	0.0088	0.0088	0.0088	0.0088	0.0000	0.0000	0.0050	0.0018	0.0042	0.0000
60	0.2506	0.0080	0.0080	0.0080	0.0080	0.0080	0.0000	0.0000	0.0050	0.0017	0.0048	0.0000
61	0.2799	0.0070	0.0070	0.0070	0.0070	0.0070	0.0000	0.0000	0.0050	0.0016	0.0055	0.0000
62	0.4256	0.0060	0.0060	0.0060	0.0060	0.0060	0.0000	0.0000	0.0050	0.0015	0.0063	0.0000
63	0.4930	0.0050	0.0050	0.0050	0.0050	0.0050	0.0000	0.0000	0.0050	0.0016	0.0072	0.0000
64	0.4948	0.0040	0.0040	0.0040	0.0040	0.0040	0.0000	0.0000	0.0050	0.0018	0.0082	0.0000
65	0.6000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0050	0.0021	0.0093	0.0000
66	0.4729	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0050	0.0022	0.0104	0.0000
67	0.5618	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0050	0.0024	0.0116	0.0000
68	0.6420	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0050	0.0024	0.0126	0.0000
69	0.8025	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0050	0.0024	0.0137	0.0000
70	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Appendices

B.   Actuarial Assumptions *(continued)*

Probabilities of Separation
Miscellaneous Male Members - Tiers 2 & 3

Age	SVC RET	WITH (0<SVC<1)	WITH (1<SVC<2)	WITH (2<SVC<3)	WITH (3<SVC<4)	WITH (4<SVC<5)	WITH (SVC>5)	TERM Vested	Ordinary Disab.	Duty Disab.	Ordinary Death	Duty Death
<=20	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.1022	0.1817	0.0000	0.0001	0.0005	0.0001
21	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0992	0.1647	0.0000	0.0001	0.0005	0.0001
22	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0963	0.1478	0.0000	0.0001	0.0005	0.0001
23	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0916	0.1309	0.0000	0.0001	0.0006	0.0001
24	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0871	0.1139	0.0000	0.0001	0.0006	0.0001
25	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0731	0.0970	0.0001	0.0001	0.0006	0.0001
26	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0596	0.0801	0.0001	0.0001	0.0007	0.0001
27	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0465	0.0632	0.0001	0.0001	0.0007	0.0001
28	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0407	0.0462	0.0001	0.0002	0.0007	0.0001
29	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0307	0.0400	0.0001	0.0003	0.0008	0.0001
30	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0240	0.0300	0.0002	0.0003	0.0008	0.0001
31	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0228	0.0300	0.0002	0.0003	0.0008	0.0001
32	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0216	0.0300	0.0002	0.0003	0.0009	0.0001
33	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0216	0.0300	0.0002	0.0003	0.0009	0.0001
34	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0216	0.0300	0.0002	0.0003	0.0009	0.0001
35	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0216	0.0250	0.0002	0.0004	0.0009	0.0001
36	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0216	0.0250	0.0003	0.0004	0.0009	0.0001
37	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0218	0.0250	0.0003	0.0004	0.0009	0.0001
38	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0210	0.0250	0.0008	0.0004	0.0009	0.0001
39	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0202	0.0250	0.0010	0.0004	0.0010	0.0001
40	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0194	0.0225	0.0013	0.0004	0.0010	0.0001
41	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0186	0.0225	0.0014	0.0004	0.0011	0.0001
42	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0178	0.0225	0.0016	0.0004	0.0012	0.0001
43	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0169	0.0225	0.0017	0.0004	0.0012	0.0001
44	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0160	0.0225	0.0019	0.0004	0.0013	0.0001
45	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0138	0.0210	0.0020	0.0005	0.0015	0.0001
46	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0129	0.0210	0.0023	0.0005	0.0016	0.0001
47	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0120	0.0210	0.0027	0.0006	0.0017	0.0001
48	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0120	0.0210	0.0028	0.0006	0.0019	0.0001
49	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0120	0.0210	0.0029	0.0007	0.0020	0.0001
50	0.0178	0.0932	0.0628	0.0470	0.0440	0.0250	0.0105	0.0200	0.0032	0.0008	0.0023	0.0001
51	0.0194	0.0932	0.0628	0.0470	0.0440	0.0250	0.0100	0.0200	0.0032	0.0009	0.0025	0.0001
52	0.0140	0.0932	0.0628	0.0470	0.0440	0.0250	0.0095	0.0200	0.0034	0.0010	0.0028	0.0001
53	0.0451	0.0932	0.0628	0.0470	0.0440	0.0250	0.0090	0.0200	0.0035	0.0011	0.0031	0.0001
54	0.0367	0.0932	0.0628	0.0470	0.0440	0.0250	0.0085	0.0200	0.0037	0.0012	0.0035	0.0001
55	0.0613	0.0932	0.0628	0.0470	0.0440	0.0250	0.0080	0.0200	0.0039	0.0012	0.0039	0.0001
56	0.0690	0.0932	0.0628	0.0470	0.0440	0.0250	0.0075	0.0200	0.0041	0.0013	0.0043	0.0001
57	0.1205	0.0932	0.0628	0.0470	0.0440	0.0250	0.0070	0.0200	0.0043	0.0015	0.0048	0.0001
58	0.1659	0.0932	0.0628	0.0470	0.0440	0.0250	0.0065	0.0200	0.0046	0.0017	0.0053	0.0001
59	0.1710	0.0932	0.0628	0.0470	0.0440	0.0250	0.0060	0.0200	0.0047	0.0018	0.0060	0.0001
60	0.1825	0.0932	0.0628	0.0470	0.0440	0.0250	0.0055	0.0200	0.0049	0.0021	0.0068	0.0001
61	0.2031	0.0932	0.0628	0.0470	0.0440	0.0250	0.0050	0.0200	0.0049	0.0023	0.0076	0.0001
62	0.4015	0.0932	0.0628	0.0470	0.0440	0.0250	0.0050	0.0200	0.0049	0.0026	0.0086	0.0001
63	0.4975	0.0932	0.0628	0.0470	0.0440	0.0250	0.0045	0.0200	0.0049	0.0029	0.0097	0.0001
64	0.4898	0.0932	0.0628	0.0470	0.0440	0.0250	0.0045	0.0200	0.0049	0.0031	0.0109	0.0001
65	0.6474	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0200	0.0049	0.0034	0.0123	0.0001
66	0.5914	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0200	0.0049	0.0036	0.0139	0.0001
67	0.5354	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0200	0.0049	0.0039	0.0156	0.0001
68	0.6119	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0200	0.0049	0.0042	0.0175	0.0001
69	0.7648	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0200	0.0049	0.0045	0.0194	0.0001
70	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Appendices

B. Actuarial Assumptions *(continued)*

Probabilities of Separation
Miscellaneous Female Members - Tiers 2 & 3

Age	SVC RET	WITH (0<SVC<1)	WITH (1<SVC<2)	WITH (2<SVC<3)	WITH (3<SVC<4)	WITH (4<SVC<5)	WITH (SVC>5)	TERM Vested	Ordinary Disab.	Duty Disab.	Ordinary Death	Duty Death
<=20	0.0000	0.1050	0.0850	0.0538	0.1000	0.0350	0.1500	0.1400	0.0000	0.0001	0.0003	0.0001
21	0.0000	0.1050	0.0850	0.0538	0.1000	0.0350	0.1368	0.1300	0.0000	0.0000	0.0003	0.0000
22	0.0000	0.1050	0.0850	0.0538	0.1000	0.0350	0.1236	0.1200	0.0000	0.0000	0.0003	0.0000
23	0.0000	0.1050	0.0850	0.0538	0.1000	0.0350	0.1145	0.1036	0.0000	0.0000	0.0003	0.0000
24	0.0000	0.1050	0.0850	0.0538	0.1000	0.0350	0.1045	0.0872	0.0000	0.0000	0.0003	0.0000
25	0.0000	0.1050	0.0850	0.0538	0.0750	0.0350	0.0934	0.0707	0.0001	0.0001	0.0003	0.0000
26	0.0000	0.1050	0.0850	0.0538	0.0750	0.0350	0.0897	0.0543	0.0001	0.0001	0.0003	0.0000
27	0.0000	0.1050	0.0850	0.0538	0.0750	0.0350	0.0856	0.0379	0.0001	0.0001	0.0003	0.0000
28	0.0000	0.1050	0.0850	0.0538	0.0750	0.0350	0.0720	0.0355	0.0001	0.0001	0.0003	0.0000
29	0.0000	0.1050	0.0850	0.0538	0.0750	0.0350	0.0596	0.0331	0.0001	0.0001	0.0004	0.0000
30	0.0000	0.1050	0.0850	0.0538	0.0600	0.0350	0.0484	0.0307	0.0002	0.0001	0.0004	0.0000
31	0.0000	0.1050	0.0850	0.0538	0.0600	0.0350	0.0383	0.0283	0.0002	0.0001	0.0004	0.0000
32	0.0000	0.1050	0.0850	0.0538	0.0600	0.0350	0.0294	0.0259	0.0002	0.0001	0.0004	0.0000
33	0.0000	0.1050	0.0850	0.0538	0.0600	0.0350	0.0286	0.0262	0.0003	0.0001	0.0005	0.0000
34	0.0000	0.1050	0.0850	0.0538	0.0600	0.0350	0.0267	0.0260	0.0003	0.0001	0.0005	0.0000
35	0.0000	0.1050	0.0850	0.0538	0.0500	0.0350	0.0237	0.0260	0.0003	0.0002	0.0005	0.0000
36	0.0000	0.1050	0.0850	0.0538	0.0500	0.0350	0.0245	0.0260	0.0005	0.0002	0.0006	0.0000
37	0.0000	0.1050	0.0850	0.0538	0.0500	0.0350	0.0239	0.0260	0.0007	0.0002	0.0006	0.0000
38	0.0000	0.1050	0.0850	0.0538	0.0500	0.0350	0.0240	0.0260	0.0007	0.0002	0.0006	0.0000
39	0.0000	0.1050	0.0850	0.0538	0.0500	0.0350	0.0240	0.0260	0.0008	0.0002	0.0007	0.0000
40	0.0000	0.1050	0.0850	0.0538	0.0450	0.0350	0.0220	0.0220	0.0008	0.0001	0.0008	0.0000
41	0.0000	0.1050	0.0850	0.0538	0.0450	0.0350	0.0220	0.0220	0.0009	0.0001	0.0008	0.0000
42	0.0000	0.1050	0.0850	0.0538	0.0450	0.0350	0.0216	0.0220	0.0009	0.0002	0.0009	0.0000
43	0.0000	0.1050	0.0850	0.0538	0.0450	0.0350	0.0191	0.0220	0.0010	0.0002	0.0009	0.0000
44	0.0000	0.1050	0.0850	0.0538	0.0450	0.0350	0.0165	0.0220	0.0010	0.0003	0.0010	0.0000
45	0.0000	0.1050	0.0850	0.0538	0.0350	0.0350	0.0139	0.0160	0.0011	0.0001	0.0010	0.0000
46	0.0000	0.1050	0.0850	0.0538	0.0350	0.0350	0.0114	0.0160	0.0011	0.0002	0.0011	0.0000
47	0.0000	0.1050	0.0850	0.0538	0.0350	0.0350	0.0088	0.0160	0.0011	0.0002	0.0012	0.0000
48	0.0000	0.1050	0.0850	0.0538	0.0350	0.0350	0.0082	0.0160	0.0014	0.0002	0.0013	0.0000
49	0.0000	0.1050	0.0850	0.0538	0.0350	0.0350	0.0076	0.0160	0.0017	0.0003	0.0014	0.0000
50	0.0458	0.1050	0.0850	0.0538	0.0300	0.0350	0.0070	0.0150	0.0020	0.0006	0.0015	0.0000
51	0.0296	0.1050	0.0850	0.0538	0.0300	0.0350	0.0066	0.0150	0.0023	0.0009	0.0017	0.0000
52	0.0250	0.1050	0.0850	0.0538	0.0300	0.0350	0.0066	0.0150	0.0026	0.0012	0.0019	0.0000
53	0.0473	0.1050	0.0850	0.0538	0.0300	0.0350	0.0066	0.0150	0.0031	0.0015	0.0021	0.0000
54	0.0760	0.1050	0.0850	0.0538	0.0300	0.0350	0.0066	0.0150	0.0036	0.0018	0.0022	0.0000
55	0.0922	0.1050	0.0850	0.0538	0.0150	0.0350	0.0066	0.0150	0.0041	0.0021	0.0025	0.0000
56	0.1216	0.1050	0.0850	0.0538	0.0150	0.0350	0.0066	0.0150	0.0048	0.0022	0.0028	0.0000
57	0.1416	0.1050	0.0850	0.0538	0.0150	0.0350	0.0061	0.0150	0.0055	0.0023	0.0031	0.0000
58	0.2544	0.1050	0.0850	0.0538	0.0150	0.0350	0.0059	0.0150	0.0058	0.0023	0.0036	0.0000
59	0.2490	0.1050	0.0850	0.0538	0.0150	0.0350	0.0059	0.0150	0.0062	0.0023	0.0042	0.0000
60	0.2677	0.1050	0.0850	0.0538	0.0100	0.0350	0.0048	0.0102	0.0066	0.0023	0.0048	0.0000
61	0.3202	0.1050	0.0850	0.0538	0.0100	0.0350	0.0046	0.0102	0.0069	0.0024	0.0055	0.0000
62	0.5169	0.1050	0.0850	0.0538	0.0100	0.0350	0.0042	0.0102	0.0074	0.0024	0.0063	0.0000
63	0.6043	0.1050	0.0850	0.0538	0.0100	0.0350	0.0038	0.0102	0.0083	0.0025	0.0072	0.0000
64	0.6094	0.1050	0.0850	0.0538	0.0100	0.0350	0.0032	0.0102	0.0093	0.0025	0.0082	0.0000
65	0.7500	0.1050	0.0850	0.0538	0.0100	0.0350	0.0000	0.0000	0.0104	0.0026	0.0093	0.0000
66	0.4986	0.1050	0.0850	0.0538	0.0100	0.0350	0.0000	0.0000	0.0115	0.0026	0.0104	0.0000
67	0.6061	0.1050	0.0850	0.0538	0.0100	0.0350	0.0000	0.0000	0.0127	0.0026	0.0116	0.0000
68	0.6927	0.1050	0.0850	0.0538	0.0100	0.0350	0.0000	0.0000	0.0133	0.0026	0.0126	0.0000
69	0.8659	0.1050	0.0850	0.0538	0.0100	0.0350	0.0000	0.0000	0.0139	0.0026	0.0137	0.0000
70	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Appendices

B.　　Actuarial Assumptions *(continued)*

Probabilities of Separation
Safety Members

Age	SVC RET	WITH (0<SVC<1)	WITH (1<SVC<2)	WITH (2<SVC<3)	WITH (3<SVC<4)	WITH (4<SVC<5)	WITH (SVC>5)	TERM Vested	Ordinary Disab.	Duty Disab.	Ordinary Death	Duty Death
<=20	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0070	0.0500	0.0000	0.0005	0.0005	0.0002
21	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0070	0.0500	0.0000	0.0006	0.0006	0.0002
22	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0070	0.0500	0.0000	0.0007	0.0006	0.0002
23	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0070	0.0500	0.0000	0.0007	0.0006	0.0002
24	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0070	0.0500	0.0000	0.0007	0.0007	0.0002
25	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0070	0.0500	0.0002	0.0009	0.0007	0.0002
26	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0070	0.0500	0.0002	0.0011	0.0007	0.0002
27	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0068	0.0142	0.0003	0.0012	0.0008	0.0002
28	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0065	0.0139	0.0003	0.0015	0.0008	0.0002
29	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0063	0.0136	0.0004	0.0018	0.0008	0.0002
30	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0060	0.0132	0.0004	0.0018	0.0009	0.0002
31	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0060	0.0129	0.0005	0.0022	0.0009	0.0002
32	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0060	0.0126	0.0005	0.0026	0.0009	0.0002
33	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0060	0.0115	0.0006	0.0028	0.0009	0.0002
34	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0060	0.0104	0.0006	0.0031	0.0009	0.0002
35	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0550	0.0096	0.0007	0.0035	0.0009	0.0002
36	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0055	0.0089	0.0008	0.0039	0.0009	0.0002
37	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0055	0.0081	0.0009	0.0045	0.0010	0.0002
38	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0055	0.0074	0.0010	0.0046	0.0010	0.0002
39	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0055	0.0066	0.0011	0.0046	0.0011	0.0002
40	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0050	0.0066	0.0012	0.0046	0.0012	0.0002
41	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0050	0.0066	0.0013	0.0046	0.0012	0.0002
42	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0050	0.0066	0.0014	0.0047	0.0013	0.0002
43	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0050	0.0066	0.0015	0.0049	0.0015	0.0002
44	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0050	0.0066	0.0017	0.0052	0.0016	0.0002
45	0.0000	0.0600	0.0000	0.0000	0.0000	0.0000	0.0050	0.0046	0.0019	0.0068	0.0017	0.0003
46	0.0000	0.0600	0.0000	0.0000	0.0000	0.0000	0.0050	0.0046	0.0021	0.0077	0.0019	0.0003
47	0.0000	0.0600	0.0000	0.0000	0.0000	0.0000	0.0050	0.0046	0.0023	0.0087	0.0020	0.0003
48	0.0000	0.0600	0.0000	0.0000	0.0000	0.0000	0.0050	0.0046	0.0025	0.0095	0.0023	0.0003
49	0.0000	0.0600	0.0000	0.0000	0.0000	0.0000	0.0050	0.0046	0.0028	0.0100	0.0025	0.0003
50	0.3300	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0028	0.0100	0.0028	0.0003
51	0.2500	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0031	0.0100	0.0031	0.0003
52	0.2500	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0033	0.0100	0.0035	0.0003
53	0.3300	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0037	0.0100	0.0039	0.0003
54	0.3300	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0040	0.0100	0.0043	0.0003
55	0.5000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0043	0.0100	0.0048	0.0004
56	0.5000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0047	0.0100	0.0053	0.0004
57	0.5000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0051	0.0100	0.0060	0.0004
58	0.5000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0054	0.0100	0.0068	0.0004
59	0.5000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0058	0.0100	0.0076	0.0004
60	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Appendices

B.   Actuarial Assumptions *(continued)*

Ratio of Current Compensation to Compensation
Anticipated At Retirement Age

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

Appendices

B. Actuarial Assumptions *(continued)*

YEARS OF LIFE EXPECTANCY AFTER SERVICE RETIREMENT

	Miscellaneous		Safety			Miscellaneous		Safety	
Age	Male	Female	Male	Female	Age	Male	Female	Male	Female
50	31.87	34.24	30.01	34.24	81	8.46	9.30	7.51	9.30
51	30.94	33.29	29.09	33.29	82	7.97	8.74	7.07	8.74
52	30.01	32.34	28.18	32.34	83	7.51	8.20	6.65	8.20
53	29.09	31.40	27.28	31.40	84	7.07	7.68	6.24	7.68
54	28.18	30.47	26.38	30.47	85	6.65	7.18	5.86	7.18
55	27.28	29.53	25.49	29.53	86	6.24	6.71	5.48	6.71
56	26.38	28.61	24.61	28.61	87	5.86	6.25	5.12	6.25
57	25.49	27.68	23.74	27.68	88	5.48	5.83	4.78	5.83
58	24.61	26.77	22.88	26.77	89	5.12	5.42	4.45	5.42
59	23.74	25.86	22.04	25.86	90	4.78	5.05	4.15	5.05
60	22.88	24.97	21.20	24.97	91	4.45	4.70	3.87	4.70
61	22.04	24.09	20.38	24.09	92	4.15	4.37	3.61	4.37
62	21.20	23.22	19.57	23.22	93	3.87	4.07	3.37	4.07
63	20.38	22.36	18.78	22.36	94	3.61	3.79	3.15	3.79
64	19.57	21.52	18.01	21.52	95	3.37	3.53	2.95	3.53
65	18.78	20.69	17.26	20.69	96	3.15	3.28	2.77	3.28
66	18.01	19.88	6.53	19.88	97	2.95	3.06	2.61	3.06
67	17.26	19.09	15.81	19.09	98	2.77	2.85	2.46	2.85
68	6.53	18.30	15.11	18.30	99	2.61	2.65	2.33	2.65
69	15.81	17.53	14.43	17.53	100	2.46	2.48	2.21	2.48
70	15.11	16.77	13.77	16.77	101	2.33	2.31	2.09	2.31
71	14.43	16.01	13.11	16.01	102	2.21	2.16	1.98	2.16
72	13.77	15.26	12.48	15.26	103	2.09	2.02	1.87	2.02
73	13.11	14.53	11.85	14.53	104	1.98	1.89	1.77	1.89
74	12.48	13.81	11.25	13.81	105	1.87	1.78	1.68	1.78
75	11.85	13.11	10.66	13.11	106	1.77	1.69	1.62	1.69
76	11.25	12.43	10.08	12.43	107	1.68	1.62	1.57	1.62
77	10.66	11.76	9.52	11.76	108	1.62	1.56	1.53	1.56
78	10.08	11.11	8.98	11.11	109	1.57	1.51	1.50	1.51
79	9.52	10.49	8.46	10.49	110	1.53	1.48	1.47	1.48
80	8.98	9.88	7.97	9.88					

	Male	Female
Miscellaneous	1994 GAM Male -2	1994 GAM Female

	Member	Beneficiary
Safety	1994 GAM Male	1994 GAM Female

Appendices

B.   Actuarial Assumptions *(continued)*

Years of Life Expectancy After Disability Retirement
Miscellaneous Members

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

1981 Disability Table (General)

Appendices

B.   Actuarial Assumptions *(continued)*

**Years of Life Expectancy After Disability Retirement
Safety Members**

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

1981 Disability Table (Safety) - 1

Appendices

C.　Actuarial Valuation Methods

Actuarial Funding Method

Responsibility of the Actuary

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

Employer Contributions

Employer contributions consist of two components:

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

2. *Contribution to the Unfunded Actuarial Accrued Liability (UAAL)* - That annual contribution rate which, if paid annually over the UAAL amortization period, would accumulate to the amount necessary to fully fund the UAAL. Accumulation includes annual crediting of interest at the assumed investment earnings rate. The contribution is calculated to remain as a level percentage of future active member payroll (including payroll of new members as they enter the System) assuming a constant number of active members. In order to remain as a level percentage of payroll, amortization payments are scheduled to increase at the annual wage inflation rate of 4.25 percent along with expected payroll. The UAAL is being funded over the 19-year period following June 30, 2003.

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

More complete definitions of the Unfunded Actuarial Accrued Liability and other actuarial terms are provided in the Glossary of Actuarial Terms, which can be found in Appendix G.

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 and Probation Officers, respectively. See Appendix A for a full description of the determination of member contribution rates.

Appendices

C. Actuarial Valuation Methods *(continued)*

Actuarial Value of Assets

Background

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

Actuarial Standards

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

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

Determination of Actuarial Value of Assets

Effective July 1, 1995, the Board adopted an asset valuation method that smoothes the deviation of total market return (net of expenses) from the 8 percent return target. This method uses a 5 year period to smooth these deviations. The actuarial value of assets is limited to be no more than 120 percent or less than 80 percent of Market Value. Effective June 30, 2002, the actuarial value of assets reached the 120 percent corridor. The Board has decided to recognize the excess amount over 120 percent as part of the 2001/2002 base and amortize the remaining amount in equal payments over four years.

Appendices

D.   Summary of Membership and Benefit Statistics

At June 30, the System's membership consisted of:

	2003	2002
Retirees and beneficiaries currently receiving benefits:		
Miscellaneous – Service	3,583	3,504
Miscellaneous – Beneficiary	814	789
Disability Miscellaneous – Ordinary	306	310
Disability Miscellaneous – Duty	185	182
Safety – Service	637	615
Safety – Beneficiary	169	160
Disability Safety – Ordinary	19	21
Disability Safety – Duty	169	161
Total Retired	**5,882**	**5,742**
Terminated employees entitled to benefits but not yet receiving them:	**1,885**	**1,994**
Current Members:		
Vested		
Miscellaneous Tier 1	1,236	1,307
Miscellaneous Tier 2	415	433
Miscellaneous Tier 3	4,814	4,487
Safety Tier 1	1,059	1,089
Safety Tier 2	577	436
Subtotal	8,101	7,752
Non-vested		
Miscellaneous Tier 1	5	7
Miscellaneous Tier 3	5,226	5,384
Safety Tier 1	21	42
Safety Tier 2	780	848
Subtotal	6,032	6,281
Total Current Members	**14,133**	**14,033**

Appendices

D.   Summary of Membership and Benefit Statistics *(continued)*

Summary of Active Membership

Active Miscellaneous Members

			June 30, 2003		June 30, 2002	Percent Change
Miscellaneous Plan 1						
A.	Number		1,241		1,314	−5.9%
B.	Average Age		54.06		53.75	0.6%
C.	Average Years of Service		26.35		25.86	1.9%
D.	Annual Salary					
	i. Total	$	79,015,000	$	80,652,000	−2.0%
	ii. Average Salary	$	63,671	$	61,379	3.7%
Miscellaneous Plan 2						
A.	Number		415		433	−4.2%
B.	Average Age		47.24		46.94	0.6%
C.	Average Years of Service		13.34		12.84	3.9%
D.	Annual Salary					
	i. Total	$	22,741,000	$	22,526,000	1.0%
	ii. Average Salary	$	54,797	$	52,025	5.3%
Miscellaneous Plan 3						
A.	Number		10,040		9,871	1.7%
B.	Average Age		42.97		42.84	0.3%
C.	Average Years of Service		6.45		6.34	1.7%
D.	Annual Salary					
	i. Total	$	476,054,000	$	439,699,000	8.3%
	ii. Average Salary	$	47,416	$	44,545	6.4%
Miscellaneous Total						
A.	Number		11,696		11,618	0.7%
B.	Average Age		44.30		44.23	0.2%
C.	Average Years of Service		8.81		8.79	0.2%
D.	Annual Salary					
	i. Total	$	577,810,000	$	542,877,000	6.4%
	ii. Average Salary	$	49,403	$	46,727	5.7%

Appendices

D.   Summary of Membership and Benefit Statistics *(continued)*

Active Safety Members

		June 30, 2003		June 30, 2002		Percent Change
Safety Plan 1						
A.	Number		1,080		1,131	−4.5%
B.	Average Age		44.67		44.34	0.7%
C.	Average Years of Service		17.07		16.55	3.1%
D.	Annual Salary					
	i. Total	$	79,570,000	$	81,898,000	−2.8%
	ii. Average Salary	$	73,676	$	72,412	1.8%
Safety Plan 2						
A.	Number		1,357		1,284	5.7%
B.	Average Age		34.58		34.54	0.1%
C.	Average Years of Service		5.41		5.39	0.4%
D.	Annual Salary					
	i. Total	$	75,916,000	$	70,484,000	7.7%
	ii. Average Salary	$	55,944	$	54,894	1.9%
Safety Total						
A.	Number		2,437		2,415	0.9%
B.	Average Age		39.05		39.13	−0.2%
C.	Average Years of Service		10.58		10.62	−0.4%
D.	Annual Salary					
	i. Total	$	155,486,000	$	152,382,000	2.0%
	ii. Average Salary	$	63,802	$	63,098	1.1%

Appendices

D. Summary of Membership and Benefit Statistics *(continued)*

Summary of Retired and Inactive Vested Membership

		June 30, 2003	June 30, 2002	Percent Change
Retired Members				
A.	Service Retirement			
i.	Number	4,220	4,119	2.5%
ii.	Annual Allowance			
	Basic Only	$ 66,528,588	$ 62,753,632	6.0%
	COLA	23,331,876	21,252,002	9.8%
	Total	$ 89,860,464	$ 84,005,634	7.0%
	Average Monthly Amount	$ 1,775	$ 1,700	4.4%
B.	Disability Retirement			
i.	Number	679	674	0.7%
ii.	Annual Allowance			
	Basic Only	$ 9,327,956	$ 9,008,814	3.5%
	COLA	4,382,767	4,079,776	7.4%
	Total	$ 13,710,723	$ 13,088,590	4.8%
	Average Monthly Amount	$ 1,683	$ 1,618	4.0%
C.	Beneficiaries			
i.	Number	983	949	3.6%
ii.	Annual Allowance			
	Basic Only	$ 6,774,848	$ 6,461,774	4.8%
	COLA	5,472,393	4,981,920	9.8%
	Total	$ 12,247,241	$ 11,443,694	7.0%
	Average Monthly Amount	$ 1,038	$ 1,005	3.3%
Total				
i.	Number	5,882	5,742	2.4%
ii.	Annual Allowance			
	Basic Only	$ 82,631,392	$ 78,224,220	5.6%
	COLA	33,187,036	30,313,697	9.5%
	Total	$ 115,818,428	$ 108,537,917	6.7%
	Average Monthly Amount	$ 1,641	$ 1,575	4.2%
Inactive Vested Members				
A.	Service Retirement	1,885	1,994	−5.5%

Appendices

D.   Summary of Membership and Benefit Statistics *(continued)*

Distribution Of Miscellaneous Tier 1 Active Members
As of June 30, 2003

Years of Service

Age Group	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
0-19										
20-24										
25-29										
30-34										
35-39										
40-44				3	42	3				48
				36,123	53,926	62,321				53,338
45-49	1	2	1	12	108	72	1			197
	27,463	58,744	76,270	45,672	59,866	62,467	84,791			59,986
50-54		3	3	15	144	166	57	3		391
		48,978	52,989	57,625	64,411	65,196	65,294	63,976		64,403
55-59	3	5	4	10	80	140	147	46	2	437
	57,926	53,863	56,839	70,166	60,738	67,801	70,248	63,287	51,284	66,507
60-64	1	1	3	3	30	30	51	22	4	145
	44,075	44,143	46,374	49,849	54,556	66,924	68,831	63,816	59,344	63,262
65-69					4	4	6	4	1	19
					54,347	50,968	47,928	58,265	39,434	51,649
70-74					1		1			2
					83,653		38,049			60,851
75 +					1		1			2
					45,674		70,987			58,331
Total	5	11	11	43	410	415	264	75	7	1,241
	49,063	52,535	54,701	55,163	60,605	65,568	68,333	63,202	54,197	63,671

Total Salary: $79,015,291

Average Age: 54.06

Average Service: 26.35

Appendices

D.   Summary of Membership and Benefit Statistics *(continued)*

Distribution Of Miscellaneous Tier 2 and Tier 3 Active Members
As of June 30, 2003

Years of Service

Age Group	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
0–19	3									**3**
	26,436									**26,436**
20-24	304									**304**
	28,891									**28,891**
25–29	832	42	1							**875**
	35,664	45,407	56,062							**36,155**
30–34	942	240	73	1						**1,256**
	40,824	53,945	44,843	62,449						**43,582**
35–39	727	348	329	63	1					**1,468**
	40,912	54,386	53,777	53,480	39,468					**47,527**
40–44	742	362	406	208	27					**1,745**
	41,184	53,996	54,698	59,469	56,320					**49,400**
45–49	645	360	400	271	54					**1,730**
	41,377	53,390	55,479	64,044	60,076					**51,272**
50–54	538	290	359	237	51	6				**1,481**
	42,363	54,001	57,794	58,230	66,391	70,823				**51,864**
55–59	314	199	276	185	38	3				**1,015**
	43,191	54,378	54,877	58,963	74,890	40,424				**52,615**
60–64	136	96	104	82	15	3		1		**437**
	43,967	54,631	51,990	56,615	47,515	82,065		54,229		**50,999**
65–69	33	29	24	17	5					**108**
	40,941	42,562	49,319	47,473	60,711					**45,182**
70–74	8	6	9	1	2					**26**
	32,845	49,478	67,313	38,731	37,810					**49,223**
75 +	2	1	1	3						**7**
	15,260	67,159	21,386	34,729						**31,893**
Total	**5,226**	**1,973**	**1,982**	**1,068**	**193**	**12**	**0**	**1**	**0**	**10,455**
	39,793	**53,660**	**54,759**	**59,418**	**62,839**	**66,034**		**54,229**		**47,709**

Total Salary: $498,794,781

Average Age: 43.14

Average Service: 6.72

Appendices

D. Summary of Membership and Benefit Statistics *(continued)*

Distribution of Safety Tier 1 Active Members
As of June 30, 2003

Years of Service

Age Group	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
0-19										
20-24										
25-29	1	4								5
	49,543	57,508								55,915
30-34	4	48	29							81
	48,373	66,302	69,992							66,738
35-39	3	49	126	37						215
	58,751	67,149	68,498	76,776						69,479
40-44	2	24	94	101	22					243
	60,648	72,651	68,138	76,175	82,248					73,140
45-49	8	14	39	61	93	22				237
	36,972	73,846	66,177	77,503	78,174	88,121				75,304
50-54	1	5	14	27	34	72	28			181
	81,629	78,017	66,847	66,327	74,457	83,249	81,502			77,381
55-59	2	2	7	9	13	33	31	1		98
	79,419	85,418	77,320	83,961	66,715	80,519	82,971	80,116		79,625
60-64			2	3		5	5	1		16
			69,041	83,660		76,702	83,644	81,697		79,531
65-69			1	1			1			3
			55,637	79,448			43,166			59,417
70-74			1							1
			66,598							66,598
75 +										
Total	21	146	313	239	162	132	65	2	0	1,080
	51,278	68,775	68,319	75,895	77,028	83,130	81,778	80,906		73,676

Total Salary: $79,569,875
Average Age: 44.67
Average Service: 17.07

Appendices

D.　Summary of Membership and Benefit Statistics *(continued)*

Distribution of Safety Tier 2 Active Members
As of June 30, 2003

Years of Service

Age Group	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
0–19	1									1
	41,553									41,553
20-24	64	1								65
	40,076	71,713								40,563
25–29	293	55								348
	46,420	62,009								48,884
30–34	238	176	2	1						417
	51,949	63,470	68,508	74,057						56,944
35–39	96	103	25	6						230
	53,246	62,212	67,935	67,556						59,231
40–44	48	25	23	16	2					114
	51,603	62,565	61,941	68,426	73,473					58,837
45–49	19	16	12	13	4					64
	58,362	63,764	66,300	70,123	58,835					63,619
50–54	12	7	8	7	18	9				61
	51,066	62,380	59,908	65,073	69,278	65,239				62,596
55–59	8	4	3	3	12	17	1			48
	78,524	66,884	65,961	56,901	69,118	76,321	92,463			72,576
60–64	1			1	3	1	1	2		9
	76,434			141,488	66,143	61,312	99,663	99,526		86,264
65–69										
70–74										
75 +										
Total	780	387	73	47	39	27	2	2	0	1,357
	49,469	62,918	64,833	69,224	68,132	72,071	96,063	99,526		55,944

Total Salary:　　　$75,915,893
Average Age:　　　34.58
Average Service:　　5.41

Appendices

D.　Summary of Membership and Benefit Statistics *(continued)*

Distribution of Miscellaneous Retired Members and Beneficiaries
As of June 30, 2003

Years Since Retirement

Age Group	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
0–19	4	4	1							9
	1,875	6,228	7,754							4,463
20-24		1								1
		13,877								13,877
25–29	1	1	2	2						6
	218	5,554	5,079	4,047						4,004
30–34			1	1						2
			9,273	5,599						7,436
35–39	5	2	2	1	2	1				13
	7,641	13,034	5,668	15,993	4,167	6,369				8,177
40–44	13	4	5	1	1					24
	10,104	11,331	9,892	8,855	5,511					10,021
45–49	20	14	9	2	1					46
	10,989	15,489	7,808	5,933	15,453					11,614
50–54	143	31	17	8	1	1				201
	13,387	10,681	12,709	10,808	8,767	14,150				12,790
55–59	285	184	33	19	6	1				528
	15,525	11,841	15,570	19,631	10,919	9,300				14,328
60–64	358	229	141	23	13	6	2	1	1	774
	20,621	17,203	11,866	11,448	12,574	8,834	10,789	8,369	11,797	17,463
65–69	251	325	194	103	19	10	4	2	1	909
	20,404	23,441	16,685	11,688	11,010	14,667	10,256	11,712	7,444	19,371
70–74	56	217	294	151	60	20	8			806
	16,224	19,952	21,726	12,423	11,377	10,282	10,599			17,958
75 +	11	47	207	412	482	258	99	11	5	1,532
	20,408	18,571	19,369	16,598	12,943	9,972	8,815	8,974	9,381	14,213
Total	1,147	1,059	906	723	585	297	113	14	7	4,851
	17,760	18,510	17,875	14,787	12,645	10,127	9,027	9,322	9,450	16,178

Total Retired Benefit:　　　　$78,481,308
Average Age:　　　　　　　　69.27
Average Years Retired:　　　11.96

Appendices

D.   Summary of Membership and Benefit Statistics *(continued)*

Distribution of Safety Retired Members and Beneficiaries
As of June 30, 2003

Years Since Retirement

Age Group	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
0–19			'							
20-24										
25–29	2									2
	15,060									15,060
30–34	1		1							2
	37,149		3,635							20,392
35–39	5	4	1							10
	27,929	24,491	17,339							25,495
40–44	4	8	1	1						14
	28,715	25,350	3,635	8,053						23,525
45–49	12	6	8	5	1					32
	27,168	26,582	22,193	30,109	41,653					26,726
50–54	47	24	7	8	4					90
	32,201	26,100	21,926	25,640	23,847					28,820
55–59	134	59	13	14	7	1				228
	47,301	32,804	29,011	27,364	23,337	14,759				40,404
60–64	56	102	61	21	3	4				247
	46,271	48,640	38,800	29,913	25,448	18,582				43,312
65–69	10	33	82	29	11	4				169
	21,762	41,598	50,480	33,290	31,812	18,248				42,119
70–74	5	9	28	29	22	10				103
	54,731	24,785	37,602	41,155	26,881	19,865				34,302
75 +	1		4	18	31	32	11			97
	32,456		39,425	37,980	29,008	21,552	18,972			27,540
Total	277	245	206	125	79	51	11	0	0	994
	41,929	39,099	41,017	33,740	28,067	20,596	18,972			37,562

Total Retired Benefit: $37,337,124

Average Age: 62.46

Average Years Retired: 10.30

Appendices

E. Member Contribution Rates

Miscellaneous Member Contribution Rates Under Section 31676.14
Recommended Rates for 2004/2005
County - All Service Improvement

	Basic				COL **				Basic and COL***			
	First $350 of Monthly Salary		Salary In Excess of $350		First $350 of Monthly Salary		Salary In Excess of $350		First $350 of Monthly Salary		Salary In Excess of $350	
Age	Tier 1	Tier 2 & 3	Tier 1	Tier 2 & 3	Tier 1	Tier 3	Tier 1	Tier 3	Tier 1	Tier 3	Tier 1	Tier 3
20	2.26%		3.39%		0.82%		1.24%		3.08%		4.63%	
21	2.25%		3.38%		0.82%		1.23%		3.07%		4.61%	
22	2.25%		3.38%		0.82%		1.23%		3.07%		4.61%	
23	2.25%		3.38%		0.82%		1.23%		3.07%		4.61%	
24	2.26%		3.39%		0.82%		1.24%		3.08%		4.63%	
25	2.27%		3.40%		0.83%		1.24%		3.10%		4.64%	
26	2.27%		3.41%		0.83%		1.24%		3.10%		4.65%	
27	2.28%		3.42%		0.83%		1.25%		3.11%		4.67%	
28	2.29%		3.44%		0.84%		1.25%		3.13%		4.69%	
29	2.31%		3.46%		0.84%		1.26%		3.15%		4.72%	
30	2.32%		3.48%		0.85%		1.27%		3.17%		4.75%	
31	2.34%		3.51%		0.85%		1.28%		3.19%		4.79%	
32	2.35%		3.53%		0.86%		1.29%		3.21%		4.82%	
33	2.37%		3.56%		0.86%		1.30%		3.23%		4.86%	
34	2.39%		3.59%		0.87%		1.31%		3.26%		4.90%	
35	2.41%		3.61%		0.88%		1.32%		3.29%		4.93%	
36	2.43%	2.31%	3.64%	3.46%	0.89%	0.51%	1.33%	0.77%	3.32%	2.82%	4.97%	4.23%
37	2.45%		3.67%		0.89%		1.34%		3.34%		5.01%	
38	2.47%		3.71%		0.90%		1.35%		3.37%		5.06%	
39	2.49%		3.74%		0.91%		1.36%		3.40%		5.10%	
40	2.51%		3.77%		0.92%		1.38%		3.43%		5.15%	
41	2.54%		3.81%		0.93%		1.39%		3.47%		5.20%	
42	2.56%		3.84%		0.93%		1.40%		3.49%		5.24%	
43	2.59%		3.88%		0.94%		1.42%		3.53%		5.30%	
44	2.61%		3.92%		0.95%		1.43%		3.56%		5.35%	
45	2.64%		3.96%		0.96%		1.44%		3.60%		5.40%	
46	2.67%		4.00%		0.97%		1.46%		3.64%		5.46%	
47	2.69%		4.04%		0.98%		1.47%		3.67%		5.51%	
48	2.72%		4.08%		0.99%		1.49%		3.71%		5.57%	
49	2.75%		4.13%		1.00%		1.51%		3.75%		5.64%	
50	2.78%		4.17%		1.01%		1.52%		3.79%		5.69%	
51	2.81%		4.22%		1.03%		1.54%		3.84%		5.76%	
52	2.85%		4.27%		1.04%		1.56%		3.89%		5.83%	
53	2.88%		4.32%		1.05%		1.58%		3.93%		5.90%	
54	2.91%		4.37%		1.06%		1.59%		3.97%		5.96%	
55	2.91%		4.37%		1.06%		1.59%		3.97%		5.96%	
56	2.91%		4.37%		1.06%		1.59%		3.97%		5.96%	
57	2.91%		4.37%		1.06%		1.59%		3.97%		5.96%	
58	2.91%		4.37%		1.06%		1.59%		3.97%		5.96%	
59	2.91%		4.37%		1.06%		1.59%		3.97%		5.96%	

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

** COL fraction: Tier 1:   36.48%
                 Tier 3:   22.21%

*** Miscellaneous Tier 2 does not have a COLA; thus the Tier 2 rates are the ones as reflected under the Basic Column.

Appendices

E.   Member Contribution Rates *(continued)*

Safety Member Contribution Rates Under Rates Under Section 31664.1
Recommended Rates for 2004/2005
County - All Service Improvement

| | Basic | | | | COL ** | | | | Basic and COL | | | |
| | First $350 of Monthly Salary | | Salary In Excess of $350 | | First $350 of Monthly Salary | | Salary In Excess of $350 | | First $350 of Monthly Salary | | Salary In Excess of $350 | |
Age	Tier 1	Tier 2	Tier 1	Tier 2	Tier 1	Tier 2	Tier 1	Tier 2	Tier 1	Tier 2	Tier 1	Tier 2
20	5.50%		8.25%		1.12%		1.68%		6.62%		9.93%	
21	5.50%		8.25%		1.12%		1.68%		6.62%		9.93%	
22	5.51%		8.26%		1.12%		1.68%		6.63%		9.94%	
23	5.51%		8.27%		1.12%		1.68%		6.63%		9.95%	
24	5.53%		8.30%		1.12%		1.69%		6.65%		9.99%	
25	5.55%		8.32%		1.13%		1.69%		6.68%		10.01%	
26	5.57%		8.36%		1.13%		1.70%		6.70%		10.06%	
27	5.60%		8.40%		1.14%		1.71%		6.74%		10.11%	
28	5.63%		8.45%		1.14%		1.72%		6.77%		10.17%	
29	5.67%	5.39%	8.51%	8.09%	1.15%	0.81%	1.73%	1.22%	6.82%	6.20%	10.24%	9.31%
30	5.72%		8.58%		1.16%		1.74%		6.88%		10.32%	
31	5.77%		8.65%		1.17%		1.76%		6.94%		10.41%	
32	5.82%		8.73%		1.18%		1.77%		7.00%		10.50%	
33	5.87%		8.81%		1.19%		1.79%		7.06%		10.60%	
34	5.94%		8.91%		1.21%		1.81%		7.15%		10.72%	
35	6.00%		9.00%		1.22%		1.83%		7.22%		10.83%	
36	6.07%		9.11%		1.23%		1.85%		7.30%		10.96%	
37	6.14%		9.21%		1.25%		1.87%		7.39%		11.08%	
38	6.22%		9.33%		1.26%		1.90%		7.48%		11.23%	
39	6.29%		9.44%		1.28%		1.92%		7.57%		11.36%	
40	6.37%		9.56%		1.29%		1.94%		7.66%		11.50%	
41	6.45%		9.68%		1.31%		1.97%		7.76%		11.65%	
42	6.53%		9.80%		1.33%		1.99%		7.86%		11.79%	
43	6.61%		9.92%		1.34%		2.02%		7.95%		11.94%	
44	6.70%		10.05%		1.36%		2.04%		8.06%		12.09%	
45	6.79%		10.18%		1.38%		2.07%		8.17%		12.25%	
46	6.87%		10.31%		1.40%		2.10%		8.27%		12.41%	
47	6.97%		10.45%		1.42%		2.12%		8.39%		12.57%	
48	7.06%		10.59%		1.44%		2.15%		8.50%		12.74%	
49	7.15%		10.72%		1.45%		2.18%		8.60%		12.90%	

* Full contribution rates expressed as a percentage of salary based upon 8.00% interest and 5.75% salary scale assumptions. Members who enter prior to 1/1/75 contribute as indicated above and all others contribute on the basis of a single entry age of 29.

** COL fraction: Tier 1:   20.33%
                   Tier 2:   15.12%

Appendices

E.   Member Contribution Rates *(continued)*

Miscellaneous Member Contribution Rates Under Rates Under Section 31676.14
Recommended Rates for 2004/2005
District - Future Service Improvement

	Basic				COL **				Basic and COL***			
	First $350 of Monthly Salary		Salary In Excess of $350		First $350 of Monthly Salary		Salary In Excess of $350		First $350 of Monthly Salary		Salary In Excess of $350	
Age	Tier 1	Tier 3	Tier 1	Tier 3	Tier 1	Tier 3	Tier 1	Tier 3	Tier 1	Tier 3	Tier 1	Tier 3
20	2.26%		3.39%		0.66%		0.99%		2.92%		4.38%	
21	2.25%		3.38%		0.65%		0.98%		2.90%		4.36%	
22	2.25%		3.38%		0.65%		0.98%		2.90%		4.36%	
23	2.25%		3.38%		0.65%		0.98%		2.90%		4.36%	
24	2.26%		3.39%		0.66%		0.99%		2.92%		4.38%	
25	2.27%		3.40%		0.66%		0.99%		2.93%		4.39%	
26	2.27%		3.41%		0.66%		0.99%		2.93%		4.40%	
27	2.28%		3.42%		0.66%		0.99%		2.94%		4.41%	
28	2.29%		3.44%		0.67%		1.00%		2.96%		4.44%	
29	2.31%		3.46%		0.67%		1.01%		2.98%		4.47%	
30	2.32%		3.48%		0.67%		1.01%		2.99%		4.49%	
31	2.34%		3.51%		0.68%		1.02%		3.02%		4.53%	
32	2.35%		3.53%		0.68%		1.03%		3.03%		4.56%	
33	2.37%		3.56%		0.69%		1.03%		3.06%		4.59%	
34	2.39%		3.59%		0.69%		1.04%		3.08%		4.63%	
35	2.41%		3.61%		0.70%		1.05%		3.11%		4.66%	
36	2.43%	2.31%	3.64%	3.46%	0.71%	0.45%	1.06%	0.67%	3.14%	2.76%	4.70%	4.13%
37	2.45%		3.67%		0.71%		1.07%		3.16%		4.74%	
38	2.47%		3.71%		0.72%		1.08%		3.19%		4.79%	
39	2.49%		3.74%		0.72%		1.09%		3.21%		4.83%	
40	2.51%		3.77%		0.73%		1.10%		3.24%		4.87%	
41	2.54%		3.81%		0.74%		1.11%		3.28%		4.92%	
42	2.56%		3.84%		0.74%		1.12%		3.30%		4.96%	
43	2.59%		3.88%		0.75%		1.13%		3.34%		5.01%	
44	2.61%		3.92%		0.76%		1.14%		3.37%		5.06%	
45	2.64%		3.96%		0.77%		1.15%		3.41%		5.11%	
46	2.67%		4.00%		0.78%		1.16%		3.45%		5.16%	
47	2.69%		4.04%		0.78%		1.17%		3.47%		5.21%	
48	2.72%		4.08%		0.79%		1.19%		3.51%		5.27%	
49	2.75%		4.13%		0.80%		1.20%		3.55%		5.33%	
50	2.78%		4.17%		0.81%		1.21%		3.59%		5.38%	
51	2.81%		4.22%		0.82%		1.23%		3.63%		5.45%	
52	2.85%		4.27%		0.83%		1.24%		3.68%		5.51%	
53	2.88%		4.32%		0.84%		1.26%		3.72%		5.58%	
54	2.91%		4.37%		0.85%		1.27%		3.76%		5.64%	
55	2.91%		4.37%		0.85%		1.27%		3.76%		5.64%	
56	2.91%		4.37%		0.85%		1.27%		3.76%		5.64%	
57	2.91%		4.37%		0.85%		1.27%		3.76%		5.64%	
58	2.91%		4.37%		0.85%		1.27%		3.76%		5.64%	
59	2.91%		4.37%		0.85%		1.27%		3.76%		5.64%	

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

** COL fraction: Tier 1:   29.07%
                   Tier 3:   19.46%

Appendices

E. Member Contribution Rates *(continued)*

Safety Member Contribution Rates Under Rates Under Section 31664.1
Recommended Rates for 2004/2005
District - Future Service Improvement

	Basic		COL **		Basic and COL	
	First $350		First $350		First $350	
	of	Salary In	of	Salary In	of	Salary In
	Monthly	Excess of	Monthly	Excess of	Monthly	Excess of
	Salary	$350	Salary	$350	Salary	$350
Age	Tier 1	Tier 1	Tier 1	Tier 1	Tier 1	Tier 1
20	5.50%	8.25%	1.05%	1.57%	6.55%	9.82%
21	5.50%	8.25%	1.05%	1.57%	6.55%	9.82%
22	5.51%	8.26%	1.05%	1.57%	6.56%	9.83%
23	5.51%	8.27%	1.05%	1.57%	6.56%	9.84%
24	5.53%	8.30%	1.05%	1.58%	6.58%	9.88%
25	5.55%	8.32%	1.06%	1.58%	6.61%	9.90%
26	5.57%	8.36%	1.06%	1.59%	6.63%	9.95%
27	5.60%	8.40%	1.06%	1.60%	6.66%	10.00%
28	5.63%	8.45%	1.07%	1.61%	6.70%	10.06%
29	5.67%	8.51%	1.08%	1.62%	6.75%	10.13%
30	5.72%	8.58%	1.09%	1.63%	6.81%	10.21%
31	5.77%	8.65%	1.10%	1.64%	6.87%	10.29%
32	5.82%	8.73%	1.11%	1.66%	6.93%	10.39%
33	5.87%	8.81%	1.12%	1.67%	6.99%	10.48%
34	5.94%	8.91%	1.13%	1.69%	7.07%	10.60%
35	6.00%	9.00%	1.14%	1.71%	7.14%	10.71%
36	6.07%	9.11%	1.15%	1.73%	7.22%	10.84%
37	6.14%	9.21%	1.17%	1.75%	7.31%	10.96%
38	6.22%	9.33%	1.18%	1.77%	7.40%	11.10%
39	6.29%	9.44%	1.20%	1.79%	7.49%	11.23%
40	6.37%	9.56%	1.21%	1.82%	7.58%	11.38%
41	6.45%	9.68%	1.23%	1.84%	7.68%	11.52%
42	6.53%	9.80%	1.24%	1.86%	7.77%	11.66%
43	6.61%	9.92%	1.26%	1.89%	7.87%	11.81%
44	6.70%	10.05%	1.27%	1.91%	7.97%	11.96%
45	6.79%	10.18%	1.29%	1.94%	8.08%	12.12%
46	6.87%	10.31%	1.31%	1.96%	8.18%	12.27%
47	6.97%	10.45%	1.33%	1.99%	8.30%	12.44%
48	7.06%	10.59%	1.34%	2.01%	8.40%	12.60%
49	7.15%	10.72%	1.36%	2.04%	8.51%	12.76%

* Full contribution rates expressed as a percentage of salary based upon 8.00% interest and 5.75% salary scale assumptions. Members who enter prior to 1/1/75 contribute as indicated above and all others contribute on the basis of a single entry age of 29.

** COL fraction: Tier 19.01%

Appendices

F.   CAFR Schedules

This appendix contains the following supporting schedules to be included in the Actuarial and Financial Sections of the System's CAFR Report:

- Summary of Membership Statistics

- Schedule of Active Member Valuation Data

- Retirees and Beneficiaries Added To and Removed From Retiree Payroll

- Schedule of Funding Progress

- Solvency Tests

- Actuarial Analysis of Financial Experience

- Probability of Separation Prior to Retirement

- Schedule of Retired Members by Type of Benefit

- Schedule of Average Benefit Payments for Retirees and Beneficiaries

Appendices

F.   CAFR Schedules *(continued)*

Summary of Membership Statistics

At June 30, the System's membership consisted of:

	2003	2002
Retirees and beneficiaries currently receiving benefits:		
Miscellaneous – Service	3,583	3,504
Miscellaneous – Beneficiary	814	789
Disability Miscellaneous – Ordinary	306	310
Disability Miscellaneous – Duty	185	182
Safety – Service	637	615
Safety – Beneficiary	169	160
Disability Safety – Ordinary	19	21
Disability Safety – Duty	169	161
Total Retired	**5,882**	**5,742**
Terminated employees entitled to benefits but not yet receiving them:	**1,885**	**1,994**
Current Members:		
Vested		
Miscellaneous Tier 1	1,236	1,307
Miscellaneous Tier 2	415	433
Miscellaneous Tier 3	4,814	4,487
Safety Tier 1	1,059	1,089
Safety Tier 2	577	436
Subtotal	8,101	7,752
Non-vested		
Miscellaneous Tier 1	5	7
Miscellaneous Tier 3	5,226	5,384
Safety Tier 1	21	42
Safety Tier 2	780	848
Subtotal	6,032	6,281
Total Current Members	**14,133**	**14,033**

Appendices

F.   CAFR Schedules *(continued)*

Schedule of Active Member Valuation Data

Valuation Date	Plan Type	Number	Annual Payroll		Annual Average Pay	% Increase in Average Pay *
6/30/1993	Miscellaneous	8,404	$	294,085,000	$ 34,993	0.00%
	Safety	1,408		62,238,000	44,203	0.00%
	Total	9,812	$	356,323,000	$ 36,315	0.00%
6/30/1994	Miscellaneous	8,704	$	312,603,000	$ 35,915	2.63%
	Safety	1,406		62,667,000	44,571	0.83%
	Total	10,110	$	375,270,000	$ 37,119	2.21%
6/30/1995	Miscellaneous	8,973	$	335,175,000	$ 37,354	4.01%
	Safety	1,488		70,108,000	47,116	5.71%
	Total	10,461	$	405,283,000	$ 38,742	4.37%
6/30/1996	Miscellaneous	8,860	$	329,019,000	$ 37,135	-0.58%
	Safety	1,896		88,584,000	46,722	-0.84%
	Total	10,756	$	417,603,000	$ 38,825	0.21%
6/30/1997	Miscellaneous	8,684	$	328,676,000	$ 37,848	1.92%
	Safety	1,863		90,791,000	48,734	4.31%
	Total	10,547	$	419,467,000	$ 39,771	2.44%
6/30/1998	Miscellaneous	8,866	$	367,781,000	$ 41,482	9.60%
	Safety	1,935		102,604,000	53,025	8.81%
	Total	10,801	$	470,385,000	$ 43,550	9.50%
6/30/1999	Miscellaneous	9,350	$	400,287,000	$ 42,811	3.20%
	Safety	2,004		102,038,000	50,917	-3.98%
	Total	11,354	$	502,325,000	$ 44,242	1.59%
6/30/2000	Miscellaneous	10,217	$	441,118,000	$ 43,175	0.85%
	Safety	2,018		117,930,000	58,439	14.77%
	Total	12,235	$	559,048,000	$ 45,693	3.28%
6/30/2001	Miscellaneous	10,781	$	498,408,000	$ 46,230	7.08%
	Safety	2,210		136,390,000	61,715	5.61%
	Total	12,991	$	634,798,000	$ 48,864	6.94%
6/30/2002	Miscellaneous	11,618	$	542,877,000	$ 46,727	1.08%
	Safety	2,415		152,382,000	63,098	2.24%
	Total	14,033	$	695,259,000	$ 49,545	1.39%
6/30/2003	Miscellaneous	11,696	$	577,810,000	$ 49,403	5.73%
	Safety	2,437		155,486,000	63,802	1.12%
	Total	14,133	$	733,296,000	$ 51,885	4.72%

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

Appendices

F.   CAFR Schedules *(continued)*

Retirees and Beneficiaries Added To and Removed From Retiree Payroll

Plan Year Ending	At Beginning of Year*	Added During Year*	Removed During Year*	At End of Year*	Annual Retiree Payroll (In Thousands)	% Increase in Annual Retiree Payroll	Average Annual Allowance
6/30/1994	3,935	N/A	N/A	4,130	$ 55,035	11.30%	$ 13,326
6/30/1995	4,130	N/A	N/A	4,387	$ 61,140	11.09%	$ 13,937
6/30/1996	4,387	N/A	N/A	4,502	$ 65,098	6.47%	$ 14,460
6/30/1997	4,502	320	176	4,646	$ 70,716	8.63%	$ 15,221
6/30/1998	4,646	394	156	4,884	$ 78,762	11.38%	$ 16,127
6/30/1999	4,884	573	154	5,303	$ 85,698	8.81%	$ 16,160
6/30/2000	5,303	377	192	5,488	$ 91,391	6.64%	$ 16,653
6/30/2001	5,488	205	167	5,526	$ 98,600	7.89%	$ 17,843
6/30/2002	5,526	438	222	5,742	$ 108,538	10.08%	$ 18,762
6/30/2003	5,742	321	181	5,882	$ 115,819	6.71%	$ 19,690

N/A - Not Available

* Participants are counted once for each benefit received.

Appendices

F.   CAFR Schedules *(continued)*

Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets[i] (a)	Actuarial Accrued Liability (AAL) - Entry Age [ii] (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
6/30/96	$ 1,956,715,000	$ 1,987,230,000	$ 30,515,000	98.5%	$ 417,603,000	7.3%
6/30/97	$ 2,238,557,000	$ 2,226,440,000	$ (12,117,000)	100.5%	$ 419,467,000	-2.9%
6/30/98	$ 2,600,547,000	$ 2,409,642,000	$ (12,117,000)	100.5%	$ 470,385,000	-40.6%
6/30/99	$ 3,017,639,000	$ 2,734,548,000	$ (283,091,000)	110.4%	$ 502,325,000	-56.4%
6/30/00	$ 3,427,348,000	$ 3,111,760,000	$ (315,588,000)	110.1%	$ 559,047,000	-56.5%
6/30/01	$ 3,718,198,000	$ 3,451,864,000	$ (266,334,000)	107.7%	$ 634,798,000	-42.0%
6/30/02	$ 3,839,081,000	$ 3,586,250,000	$ (252,831,000)	107.1%	$ 695,259,000	-36.4%
6/30/03	$ 3,864,400,000	$ 4,108,294,000	$ 243,894,000	94.1%	$ 733,296,000	33.3%

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

Appendices

F.   CAFR Schedules *(continued)*

Solvency Tests (amounts in thousands)

Valuation Date	Aggregate Accrued Liabilities for				Portion of Accrued Liabilities Covered by Reported Assets			
	Active Member Contributions	Retired/Vested Members	Active Members (Employer Financed Portion)	Total	Actuarial Value of Assets	Active Member Contributions	Retired/Vested Members	Active Members (Employer Financed Portion)
6/30/1994	$ 192,649	$ 732,203	$ 709,921	$ 1,634,773	$ 1,106,922	100%	100%	26%
6/30/1995	$ 213,766	$ 848,904	$ 773,194	$ 1,835,864	$ 1,767,064	100%	100%	91%
6/30/1996	$ 244,228	$ 892,185	$ 850,817	$ 1,987,230	$ 1,956,715	100%	100%	96%
6/30/1997	$ 260,787	$ 975,206	$ 990,447	$ 2,226,440	$ 2,238,557	100%	100%	100%
6/30/1998	$ 285,779	$ 1,043,514	$ 1,080,349	$ 2,409,642	$ 2,600,547	100%	100%	100%
6/30/1999	$ 303,957	$ 1,122,054	$ 1,308,537	$ 2,734,548	$ 3,017,639	100%	100%	100%
6/30/2000	$ 322,134	$ 1,239,894	$ 1,549,732	$ 3,111,760	$ 3,427,348	100%	100%	100%
6/30/2001	$ 393,924	$ 1,323,405	$ 1,734,535	$ 3,451,864	$ 3,718,198	100%	100%	100%
6/30/2002	$ 370,625	$ 1,427,334	$ 1,788,291	$ 3,586,250	$ 3,839,081	100%	100%	100%
6/30/2003	$ 252,998	$ 1,599,899	$ 2,255,397	$ 4,108,294	$ 3,864,400	100%	100%	89%

Events affecting year to year comparability:

06/30/94 -   Investment return assumption reduced from 8.50% to 8.00%; Inflation assumption dropped from 5% to 4.50%; Salary increase assumption decreased from 6.00% to 5.50%.

06/30/95 -   Inflation assumption decreased from 4.50% to 4.25%. Modification in non-economic assumptions. Included $533,034 of Pension Obligation Bonds issued on July 5, 1995.

06/30/98 -   Salary increase assumption increased from 5.50% to 5.55%. Modification in non-economic assumptions. Liability as a result of Ventura Court Decision was included.

06/30/01-   Salary increase assumption increased from 5.55% to 5.75%. Modification in non-economic assumptions.

06/30/03 -   Includes enhanced benefits under Sections 31676.14 and 31664.1 and ad hoc COLA increase under Section 31681.55. Inflation assumption decreased from 4.25% to 3.00%.

Appendices

F.   CAFR Schedules *(continued)*

Actuarial Analysis of Financial Experience (amounts in millions)

	Plan Years Ending 6/30							
	2003	2002	2001	2000	1999	1998	1997	1996
Prior Valuation Unfunded Actuarial Accrued Liability	$ (253)	$ (266)	$ (316)	$ (283)	$ (191)	$ (12)	$ 31	$ 69
Salary Increase Greater (Less) than Expected	$ 2	$ 5	$ 50	$ 46	$ (93)	$ (29)		
Asset Return Less (Greater) than Expected	$ (13)	$ (8)	$ (3)	$ (6)	$ (11)	$ (205)		
Plan Improvements	$ 460	$ -			$ (18)			
Other Experience	$ 92	$ 16	$ (18)	$ (2)	$	$ 55		
Liability from Ventura Court Decision	$ -	$ -	$ -	$ -	$ -	$ 95		
Economic and Non-Economic Assumption Changes	$ (44)	$ -	$ 21	$ -	$ -	$ 21		
Data Corrections	$ -	$ -	$ -	$ -	$ 30 [i]	$ -		
Transfer from Excess Earnings	$ -	$ -	$ -	$ (71)	$	$ (116)		
Ending Unfunded Actuarial Accrued Liability	$ 244	$ (253)	$ (266)	$ (316)	$ (283)	$ (191)	$ (12)	$ 31

(i)   Includes $24 million in Recognition of Sick Leave Service in Valuation and $6 million in Loss from Retirements.

Appendices

F.   CAFR Schedules *(continued)*

Probabilities of Separation
Miscellaneous Male Members - Tier 1

Age	SVC RET	WITH (0<SVC<1)	WITH (1<SVC<2)	WITH (2<SVC<3)	WITH (3<SVC<4)	WITH (4<SVC<5)	WITH (SVC>5)	TERM Vested	Ordinary Disab.	Duty Disab.	Ordinary Death	Duty Death
<=20	0.0000	0.1040	0.1040	0.1040	0.1040	0.1040	0.1040	0.0150	0.0000	0.0001	0.0005	0.0001
21	0.0000	0.1010	0.1010	0.1010	0.1010	0.1010	0.0965	0.0150	0.0000	0.0001	0.0005	0.0001
22	0.0000	0.0980	0.0980	0.0980	0.0980	0.0980	0.0891	0.0150	0.0000	0.0001	0.0005	0.0001
23	0.0000	0.0950	0.0950	0.0950	0.0950	0.0950	0.0796	0.0150	0.0000	0.0001	0.0006	0.0001
24	0.0000	0.0920	0.0920	0.0920	0.0920	0.0920	0.0705	0.0150	0.0000	0.0001	0.0006	0.0001
25	0.0000	0.0900	0.0900	0.0900	0.0900	0.0900	0.0618	0.0150	0.0025	0.0001	0.0006	0.0001
26	0.0000	0.0850	0.0850	0.0850	0.0850	0.0850	0.0534	0.0150	0.0025	0.0001	0.0007	0.0001
27	0.0000	0.0800	0.0800	0.0800	0.0800	0.0800	0.0454	0.0150	0.0025	0.0001	0.0007	0.0001
28	0.0000	0.0750	0.0750	0.0750	0.0750	0.0750	0.0399	0.0150	0.0025	0.0001	0.0007	0.0001
29	0.0000	0.0700	0.0700	0.0700	0.0700	0.0700	0.0340	0.0150	0.0025	0.0001	0.0008	0.0001
30	0.0000	0.0660	0.0660	0.0660	0.0660	0.0660	0.0343	0.0150	0.0025	0.0001	0.0008	0.0001
31	0.0000	0.0620	0.0620	0.0620	0.0620	0.0620	0.0347	0.0150	0.0025	0.0001	0.0008	0.0001
32	0.0000	0.0570	0.0570	0.0570	0.0570	0.0570	0.0351	0.0150	0.0025	0.0001	0.0009	0.0001
33	0.0000	0.0530	0.0530	0.0530	0.0530	0.0530	0.0354	0.0150	0.0025	0.0001	0.0009	0.0001
34	0.0000	0.0480	0.0480	0.0480	0.0480	0.0480	0.0358	0.0150	0.0025	0.0001	0.0009	0.0001
35	0.0000	0.0460	0.0460	0.0460	0.0460	0.0460	0.0361	0.0125	0.0025	0.0002	0.0009	0.0001
36	0.0000	0.0440	0.0440	0.0440	0.0440	0.0440	0.0401	0.0125	0.0025	0.0002	0.0009	0.0001
37	0.0000	0.0410	0.0410	0.0410	0.0410	0.0410	0.0425	0.0125	0.0025	0.0003	0.0009	0.0001
38	0.0000	0.0380	0.0380	0.0380	0.0380	0.0380	0.0347	0.0125	0.0025	0.0004	0.0009	0.0001
39	0.0000	0.0350	0.0350	0.0350	0.0350	0.0350	0.0276	0.0125	0.0025	0.0005	0.0010	0.0001
40	0.0000	0.0290	0.0290	0.0290	0.0290	0.0290	0.0206	0.0125	0.0025	0.0006	0.0010	0.0001
41	0.0000	0.0262	0.0262	0.0262	0.0262	0.0262	0.0146	0.0125	0.0025	0.0007	0.0011	0.0001
42	0.0000	0.0235	0.0235	0.0235	0.0235	0.0235	0.0096	0.0125	0.0025	0.0007	0.0012	0.0001
43	0.0000	0.0208	0.0208	0.0208	0.0208	0.0208	0.0074	0.0125	0.0025	0.0009	0.0012	0.0001
44	0.0000	0.0181	0.0181	0.0181	0.0181	0.0181	0.0055	0.0125	0.0025	0.0010	0.0013	0.0001
45	0.0000	0.0166	0.0166	0.0166	0.0166	0.0166	0.0037	0.0108	0.0025	0.0011	0.0015	0.0001
46	0.0000	0.0148	0.0148	0.0148	0.0148	0.0148	0.0035	0.0092	0.0029	0.0013	0.0016	0.0001
47	0.0000	0.0129	0.0129	0.0129	0.0129	0.0129	0.0031	0.0075	0.0034	0.0014	0.0017	0.0001
48	0.0000	0.0111	0.0111	0.0111	0.0111	0.0111	0.0027	0.0058	0.0037	0.0017	0.0019	0.0001
49	0.0000	0.0102	0.0102	0.0102	0.0102	0.0102	0.0024	0.0042	0.0040	0.0020	0.0020	0.0001
50	0.0418	0.0102	0.0102	0.0102	0.0102	0.0102	0.0021	0.0042	0.0045	0.0022	0.0023	0.0001
51	0.0359	0.0097	0.0097	0.0097	0.0097	0.0097	0.0018	0.0042	0.0045	0.0025	0.0025	0.0001
52	0.0230	0.0092	0.0092	0.0092	0.0092	0.0092	0.0016	0.0042	0.0045	0.0028	0.0028	0.0001
53	0.0445	0.0087	0.0087	0.0087	0.0087	0.0087	0.0014	0.0042	0.0045	0.0029	0.0031	0.0001
54	0.0596	0.0082	0.0082	0.0082	0.0082	0.0082	0.0011	0.0042	0.0045	0.0031	0.0035	0.0001
55	0.0840	0.0078	0.0078	0.0078	0.0078	0.0078	0.0000	0.0000	0.0045	0.0033	0.0039	0.0001
56	0.1022	0.0074	0.0074	0.0074	0.0074	0.0074	0.0000	0.0000	0.0045	0.0035	0.0043	0.0001
57	0.1801	0.0069	0.0069	0.0069	0.0069	0.0069	0.0000	0.0000	0.0045	0.0038	0.0048	0.0001
58	0.2501	0.0064	0.0064	0.0064	0.0064	0.0064	0.0000	0.0000	0.0045	0.0041	0.0053	0.0001
59	0.2790	0.0059	0.0059	0.0059	0.0059	0.0059	0.0000	0.0000	0.0045	0.0044	0.0060	0.0001
60	0.3066	0.0055	0.0055	0.0055	0.0055	0.0055	0.0000	0.0000	0.0045	0.0048	0.0068	0.0001
61	0.3379	0.0050	0.0050	0.0050	0.0050	0.0050	0.0000	0.0000	0.0045	0.0053	0.0076	0.0001
62	0.3784	0.0050	0.0050	0.0050	0.0050	0.0050	0.0000	0.0000	0.0045	0.0059	0.0086	0.0001
63	0.3938	0.0045	0.0045	0.0045	0.0045	0.0045	0.0000	0.0000	0.0045	0.0065	0.0097	0.0001
64	0.3979	0.0045	0.0045	0.0045	0.0045	0.0045	0.0000	0.0000	0.0045	0.0071	0.0109	0.0001
65	0.4169	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0045	0.0077	0.0123	0.0001
66	0.4478	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0045	0.0083	0.0139	0.0001
67	0.4788	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0045	0.0090	0.0156	0.0001
68	0.5472	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0045	0.0097	0.0175	0.0001
69	0.6840	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0045	0.0104	0.0194	0.0001
70	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Appendices

F.   CAFR Schedules *(continued)*

Probabilities of Separation
Miscellaneous Female Members - Tier 1

Age	SVC RET	WITH (0<SVC<1)	WITH (1<SVC<2)	WITH (2<SVC<3)	WITH (3<SVC<4)	WITH (4<SVC<5)	WITH (SVC>5)	TERM Vested	Ordinary Disab.	Duty Disab.	Ordinary Death	Duty Death
<=20	0.0000	0.1250	0.1250	0.1250	0.1250	0.1250	0.1250	0.0150	0.0000	0.0001	0.0003	0.0000
21	0.0000	0.1150	0.1150	0.1150	0.1150	0.1150	0.1150	0.0150	0.0000	0.0000	0.0003	0.0000
22	0.0000	0.1060	0.1060	0.1060	0.1060	0.1060	0.1060	0.0150	0.0000	0.0000	0.0003	0.0000
23	0.0000	0.0980	0.0980	0.0980	0.0980	0.0980	0.0980	0.0150	0.0000	0.0000	0.0003	0.0000
24	0.0000	0.0930	0.0930	0.0930	0.0930	0.0930	0.0930	0.0150	0.0000	0.0000	0.0003	0.0000
25	0.0000	0.0900	0.0900	0.0900	0.0900	0.0900	0.0858	0.0150	0.0001	0.0001	0.0003	0.0000
26	0.0000	0.0880	0.0880	0.0880	0.0880	0.0880	0.0786	0.0150	0.0001	0.0001	0.0003	0.0000
27	0.0000	0.0860	0.0860	0.0860	0.0860	0.0860	0.0714	0.0150	0.0001	0.0001	0.0003	0.0000
28	0.0000	0.0840	0.0840	0.0840	0.0840	0.0840	0.0614	0.0150	0.0001	0.0001	0.0003	0.0000
29	0.0000	0.0820	0.0820	0.0820	0.0820	0.0820	0.0520	0.0150	0.0001	0.0010	0.0004	0.0000
30	0.0000	0.0759	0.0759	0.0759	0.0759	0.0759	0.0432	0.0150	0.0002	0.0001	0.0004	0.0000
31	0.0000	0.0711	0.0711	0.0711	0.0711	0.0711	0.0351	0.0150	0.0002	0.0001	0.0004	0.0000
32	0.0000	0.0663	0.0663	0.0663	0.0663	0.0663	0.0276	0.0150	0.0002	0.0001	0.0004	0.0000
33	0.0000	0.0615	0.0615	0.0615	0.0615	0.0615	0.0210	0.0150	0.0003	0.0001	0.0005	0.0000
34	0.0000	0.0567	0.0567	0.0567	0.0567	0.0567	0.0149	0.0150	0.0003	0.0001	0.0005	0.0000
35	0.0000	0.0479	0.0479	0.0479	0.0479	0.0479	0.0113	0.0125	0.0002	0.0002	0.0005	0.0000
36	0.0000	0.0452	0.0452	0.0452	0.0452	0.0452	0.0101	0.0125	0.0003	0.0002	0.0006	0.0000
37	0.0000	0.0408	0.0408	0.0408	0.0408	0.0408	0.0086	0.0125	0.0004	0.0002	0.0006	0.0000
38	0.0000	0.0364	0.0364	0.0364	0.0364	0.0364	0.0073	0.0125	0.0004	0.0002	0.0006	0.0000
39	0.0000	0.0328	0.0328	0.0328	0.0328	0.0328	0.0063	0.0125	0.0005	0.0002	0.0007	0.0000
40	0.0000	0.0293	0.0293	0.0293	0.0293	0.0293	0.0065	0.0125	0.0010	0.0002	0.0008	0.0000
41	0.0000	0.0275	0.0275	0.0275	0.0275	0.0275	0.0055	0.0125	0.0014	0.0002	0.0008	0.0000
42	0.0000	0.0258	0.0258	0.0258	0.0258	0.0258	0.0046	0.0125	0.0017	0.0003	0.0009	0.0000
43	0.0000	0.0241	0.0241	0.0241	0.0241	0.0241	0.0041	0.0125	0.0023	0.0003	0.0009	0.0000
44	0.0000	0.0224	0.0224	0.0224	0.0224	0.0224	0.0035	0.0125	0.0029	0.0003	0.0010	0.0000
45	0.0000	0.0215	0.0215	0.0215	0.0215	0.0215	0.0029	0.0100	0.0036	0.0004	0.0010	0.0000
46	0.0000	0.0206	0.0206	0.0206	0.0206	0.0206	0.0029	0.0100	0.0044	0.0004	0.0011	0.0000
47	0.0000	0.0197	0.0197	0.0197	0.0197	0.0197	0.0029	0.0100	0.0050	0.0004	0.0012	0.0000
48	0.0000	0.0188	0.0188	0.0188	0.0188	0.0188	0.0029	0.0100	0.0050	0.0006	0.0013	0.0000
49	0.0000	0.0179	0.0179	0.0179	0.0179	0.0179	0.0029	0.0100	0.0050	0.0007	0.0014	0.0000
50	0.0702	0.0184	0.0184	0.0184	0.0184	0.0184	0.0026	0.0070	0.0050	0.0008	0.0015	0.0000
51	0.0491	0.0175	0.0175	0.0175	0.0175	0.0175	0.0026	0.0070	0.0050	0.0010	0.0017	0.0000
52	0.0451	0.0165	0.0165	0.0165	0.0165	0.0165	0.0026	0.0070	0.0050	0.0012	0.0019	0.0000
53	0.0726	0.0155	0.0155	0.0155	0.0155	0.0155	0.0023	0.0070	0.0050	0.0013	0.0021	0.0000
54	0.1172	0.0146	0.0146	0.0146	0.0146	0.0146	0.0023	0.0070	0.0050	0.0015	0.0022	0.0000
55	0.1085	0.0137	0.0137	0.0137	0.0137	0.0137	0.0000	0.0000	0.0050	0.0017	0.0025	0.0000
56	0.1104	0.0127	0.0127	0.0127	0.0127	0.0127	0.0000	0.0000	0.0050	0.0018	0.0028	0.0000
57	0.1309	0.0113	0.0113	0.0113	0.0113	0.0113	0.0000	0.0000	0.0050	0.0020	0.0031	0.0000
58	0.2140	0.0098	0.0098	0.0098	0.0098	0.0098	0.0000	0.0000	0.0050	0.0019	0.0036	0.0000
59	0.2388	0.0088	0.0088	0.0088	0.0088	0.0088	0.0000	0.0000	0.0050	0.0018	0.0042	0.0000
60	0.2506	0.0080	0.0080	0.0080	0.0080	0.0080	0.0000	0.0000	0.0050	0.0017	0.0048	0.0000
61	0.2799	0.0070	0.0070	0.0070	0.0070	0.0070	0.0000	0.0000	0.0050	0.0016	0.0055	0.0000
62	0.4256	0.0060	0.0060	0.0060	0.0060	0.0060	0.0000	0.0000	0.0050	0.0015	0.0063	0.0000
63	0.4930	0.0050	0.0050	0.0050	0.0050	0.0050	0.0000	0.0000	0.0050	0.0016	0.0072	0.0000
64	0.4948	0.0040	0.0040	0.0040	0.0040	0.0040	0.0000	0.0000	0.0050	0.0018	0.0082	0.0000
65	0.6000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0050	0.0021	0.0093	0.0000
66	0.4729	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0050	0.0022	0.0104	0.0000
67	0.5618	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0050	0.0024	0.0116	0.0000
68	0.6420	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0050	0.0024	0.0126	0.0000
69	0.8025	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0050	0.0024	0.0137	0.0000
70	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Appendices

F.   CAFR Schedules *(continued)*

Probabilities of Separation
Miscellaneous Male Members - Tiers 2 & 3

Age	SVC RET	WITH (0<SVC<1)	WITH (1<SVC<2)	WITH (2<SVC<3)	WITH (3<SVC<4)	WITH (4<SVC<5)	WITH (SVC>5)	TERM Vested	Ordinary Disab.	Duty Disab.	Ordinary Death	Duty Death
<=20	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.1022	0.1817	0.0000	0.0001	0.0005	0.0001
21	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0992	0.1647	0.0000	0.0001	0.0005	0.0001
22	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0963	0.1478	0.0000	0.0001	0.0005	0.0001
23	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0916	0.1309	0.0000	0.0001	0.0006	0.0001
24	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0871	0.1139	0.0000	0.0001	0.0006	0.0001
25	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0731	0.0970	0.0001	0.0001	0.0006	0.0001
26	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0596	0.0801	0.0001	0.0001	0.0007	0.0001
27	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0465	0.0632	0.0001	0.0001	0.0007	0.0001
28	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0407	0.0462	0.0001	0.0002	0.0007	0.0001
29	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0307	0.0400	0.0001	0.0003	0.0008	0.0001
30	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0240	0.0300	0.0002	0.0003	0.0008	0.0001
31	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0228	0.0300	0.0002	0.0003	0.0008	0.0001
32	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0216	0.0300	0.0002	0.0003	0.0009	0.0001
33	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0216	0.0300	0.0002	0.0003	0.0009	0.0001
34	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0216	0.0300	0.0002	0.0003	0.0009	0.0001
35	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0216	0.0250	0.0002	0.0004	0.0009	0.0001
36	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0216	0.0250	0.0003	0.0004	0.0009	0.0001
37	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0218	0.0250	0.0003	0.0004	0.0009	0.0001
38	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0210	0.0250	0.0008	0.0004	0.0009	0.0001
39	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0202	0.0250	0.0010	0.0004	0.0010	0.0001
40	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0194	0.0225	0.0013	0.0004	0.0010	0.0001
41	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0186	0.0225	0.0014	0.0004	0.0011	0.0001
42	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0178	0.0225	0.0016	0.0004	0.0012	0.0001
43	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0169	0.0225	0.0017	0.0004	0.0012	0.0001
44	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0160	0.0225	0.0019	0.0004	0.0013	0.0001
45	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0138	0.0210	0.0020	0.0005	0.0015	0.0001
46	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0129	0.0210	0.0023	0.0005	0.0016	0.0001
47	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0120	0.0210	0.0027	0.0006	0.0017	0.0001
48	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0120	0.0210	0.0028	0.0006	0.0019	0.0001
49	0.0000	0.0932	0.0628	0.0470	0.0440	0.0250	0.0120	0.0210	0.0029	0.0007	0.0020	0.0001
50	0.0178	0.0932	0.0628	0.0470	0.0440	0.0250	0.0105	0.0200	0.0032	0.0008	0.0023	0.0001
51	0.0194	0.0932	0.0628	0.0470	0.0440	0.0250	0.0100	0.0200	0.0032	0.0009	0.0025	0.0001
52	0.0140	0.0932	0.0628	0.0470	0.0440	0.0250	0.0095	0.0200	0.0034	0.0010	0.0028	0.0001
53	0.0451	0.0932	0.0628	0.0470	0.0440	0.0250	0.0090	0.0200	0.0035	0.0011	0.0031	0.0001
54	0.0367	0.0932	0.0628	0.0470	0.0440	0.0250	0.0085	0.0200	0.0037	0.0012	0.0035	0.0001
55	0.0613	0.0932	0.0628	0.0470	0.0440	0.0250	0.0080	0.0200	0.0039	0.0012	0.0039	0.0001
56	0.0690	0.0932	0.0628	0.0470	0.0440	0.0250	0.0075	0.0200	0.0041	0.0013	0.0043	0.0001
57	0.1205	0.0932	0.0628	0.0470	0.0440	0.0250	0.0070	0.0200	0.0043	0.0015	0.0048	0.0001
58	0.1659	0.0932	0.0628	0.0470	0.0440	0.0250	0.0065	0.0200	0.0046	0.0017	0.0053	0.0001
59	0.1710	0.0932	0.0628	0.0470	0.0440	0.0250	0.0060	0.0200	0.0047	0.0018	0.0060	0.0001
60	0.1825	0.0932	0.0628	0.0470	0.0440	0.0250	0.0055	0.0200	0.0049	0.0021	0.0068	0.0001
61	0.2031	0.0932	0.0628	0.0470	0.0440	0.0250	0.0050	0.0200	0.0049	0.0023	0.0076	0.0001
62	0.4015	0.0932	0.0628	0.0470	0.0440	0.0250	0.0050	0.0200	0.0049	0.0026	0.0086	0.0001
63	0.4975	0.0932	0.0628	0.0470	0.0440	0.0250	0.0045	0.0200	0.0049	0.0029	0.0097	0.0001
64	0.4898	0.0932	0.0628	0.0470	0.0440	0.0250	0.0045	0.0200	0.0049	0.0031	0.0109	0.0001
65	0.6474	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0200	0.0049	0.0034	0.0123	0.0001
66	0.5914	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0200	0.0049	0.0036	0.0139	0.0001
67	0.5354	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0200	0.0049	0.0039	0.0156	0.0001
68	0.6119	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0200	0.0049	0.0042	0.0175	0.0001
69	0.7648	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0200	0.0049	0.0045	0.0194	0.0001
70	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Appendices

F.　CAFR Schedules *(continued)*

Probabilities of Separation
Miscellaneous Female Members - Tiers 2 & 3

Age	SVC RET	WITH (0<SVC<1)	WITH (1<SVC<2)	WITH (2<SVC<3)	WITH (3<SVC<4)	WITH (4<SVC<5)	WITH (SVC>5)	TERM Vested	Ordinary Disab.	Duty Disab.	Ordinary Death	Duty Death
<=20	0.0000	0.1050	0.0850	0.0538	0.1000	0.0350	0.1500	0.1400	0.0000	0.0001	0.0003	0.0001
21	0.0000	0.1050	0.0850	0.0538	0.1000	0.0350	0.1368	0.1300	0.0000	0.0000	0.0003	0.0000
22	0.0000	0.1050	0.0850	0.0538	0.1000	0.0350	0.1236	0.1200	0.0000	0.0000	0.0003	0.0000
23	0.0000	0.1050	0.0850	0.0538	0.1000	0.0350	0.1145	0.1036	0.0000	0.0000	0.0003	0.0000
24	0.0000	0.1050	0.0850	0.0538	0.1000	0.0350	0.1045	0.0872	0.0000	0.0000	0.0003	0.0000
25	0.0000	0.1050	0.0850	0.0538	0.0750	0.0350	0.0934	0.0707	0.0001	0.0001	0.0003	0.0000
26	0.0000	0.1050	0.0850	0.0538	0.0750	0.0350	0.0897	0.0543	0.0001	0.0001	0.0003	0.0000
27	0.0000	0.1050	0.0850	0.0538	0.0750	0.0350	0.0856	0.0379	0.0001	0.0001	0.0003	0.0000
28	0.0000	0.1050	0.0850	0.0538	0.0750	0.0350	0.0720	0.0355	0.0001	0.0001	0.0003	0.0000
29	0.0000	0.1050	0.0850	0.0538	0.0750	0.0350	0.0596	0.0331	0.0001	0.0001	0.0004	0.0000
30	0.0000	0.1050	0.0850	0.0538	0.0600	0.0350	0.0484	0.0307	0.0002	0.0001	0.0004	0.0000
31	0.0000	0.1050	0.0850	0.0538	0.0600	0.0350	0.0383	0.0283	0.0002	0.0001	0.0004	0.0000
32	0.0000	0.1050	0.0850	0.0538	0.0600	0.0350	0.0294	0.0259	0.0002	0.0001	0.0004	0.0000
33	0.0000	0.1050	0.0850	0.0538	0.0600	0.0350	0.0286	0.0262	0.0003	0.0001	0.0005	0.0000
34	0.0000	0.1050	0.0850	0.0538	0.0600	0.0350	0.0267	0.0260	0.0003	0.0001	0.0005	0.0000
35	0.0000	0.1050	0.0850	0.0538	0.0500	0.0350	0.0237	0.0260	0.0003	0.0002	0.0005	0.0000
36	0.0000	0.1050	0.0850	0.0538	0.0500	0.0350	0.0245	0.0260	0.0005	0.0002	0.0006	0.0000
37	0.0000	0.1050	0.0850	0.0538	0.0500	0.0350	0.0239	0.0260	0.0007	0.0002	0.0006	0.0000
38	0.0000	0.1050	0.0850	0.0538	0.0500	0.0350	0.0240	0.0260	0.0007	0.0002	0.0006	0.0000
39	0.0000	0.1050	0.0850	0.0538	0.0500	0.0350	0.0240	0.0260	0.0008	0.0002	0.0007	0.0000
40	0.0000	0.1050	0.0850	0.0538	0.0450	0.0350	0.0220	0.0220	0.0008	0.0001	0.0008	0.0000
41	0.0000	0.1050	0.0850	0.0538	0.0450	0.0350	0.0220	0.0220	0.0009	0.0001	0.0008	0.0000
42	0.0000	0.1050	0.0850	0.0538	0.0450	0.0350	0.0216	0.0220	0.0009	0.0002	0.0009	0.0000
43	0.0000	0.1050	0.0850	0.0538	0.0450	0.0350	0.0191	0.0220	0.0010	0.0002	0.0009	0.0000
44	0.0000	0.1050	0.0850	0.0538	0.0450	0.0350	0.0165	0.0220	0.0010	0.0003	0.0010	0.0000
45	0.0000	0.1050	0.0850	0.0538	0.0350	0.0350	0.0139	0.0160	0.0011	0.0001	0.0010	0.0000
46	0.0000	0.1050	0.0850	0.0538	0.0350	0.0350	0.0114	0.0160	0.0011	0.0002	0.0011	0.0000
47	0.0000	0.1050	0.0850	0.0538	0.0350	0.0350	0.0088	0.0160	0.0011	0.0002	0.0012	0.0000
48	0.0000	0.1050	0.0850	0.0538	0.0350	0.0350	0.0082	0.0160	0.0014	0.0002	0.0013	0.0000
49	0.0000	0.1050	0.0850	0.0538	0.0350	0.0350	0.0076	0.0160	0.0017	0.0003	0.0014	0.0000
50	0.0458	0.1050	0.0850	0.0538	0.0300	0.0350	0.0070	0.0150	0.0020	0.0006	0.0015	0.0000
51	0.0296	0.1050	0.0850	0.0538	0.0300	0.0350	0.0066	0.0150	0.0023	0.0009	0.0017	0.0000
52	0.0250	0.1050	0.0850	0.0538	0.0300	0.0350	0.0066	0.0150	0.0026	0.0012	0.0019	0.0000
53	0.0473	0.1050	0.0850	0.0538	0.0300	0.0350	0.0066	0.0150	0.0031	0.0015	0.0021	0.0000
54	0.0760	0.1050	0.0850	0.0538	0.0300	0.0350	0.0066	0.0150	0.0036	0.0018	0.0022	0.0000
55	0.0922	0.1050	0.0850	0.0538	0.0150	0.0350	0.0066	0.0150	0.0041	0.0021	0.0025	0.0000
56	0.1216	0.1050	0.0850	0.0538	0.0150	0.0350	0.0066	0.0150	0.0048	0.0022	0.0028	0.0000
57	0.1416	0.1050	0.0850	0.0538	0.0150	0.0350	0.0061	0.0150	0.0055	0.0023	0.0031	0.0000
58	0.2544	0.1050	0.0850	0.0538	0.0150	0.0350	0.0059	0.0150	0.0058	0.0023	0.0036	0.0000
59	0.2490	0.1050	0.0850	0.0538	0.0150	0.0350	0.0059	0.0150	0.0062	0.0023	0.0042	0.0000
60	0.2677	0.1050	0.0850	0.0538	0.0100	0.0350	0.0048	0.0102	0.0066	0.0023	0.0048	0.0000
61	0.3202	0.1050	0.0850	0.0538	0.0100	0.0350	0.0046	0.0102	0.0069	0.0024	0.0055	0.0000
62	0.5169	0.1050	0.0850	0.0538	0.0100	0.0350	0.0042	0.0102	0.0074	0.0024	0.0063	0.0000
63	0.6043	0.1050	0.0850	0.0538	0.0100	0.0350	0.0038	0.0102	0.0083	0.0025	0.0072	0.0000
64	0.6094	0.1050	0.0850	0.0538	0.0100	0.0350	0.0032	0.0102	0.0093	0.0025	0.0082	0.0000
65	0.7500	0.1050	0.0850	0.0538	0.0100	0.0350	0.0000	0.0000	0.0104	0.0026	0.0093	0.0000
66	0.4986	0.1050	0.0850	0.0538	0.0100	0.0350	0.0000	0.0000	0.0115	0.0026	0.0104	0.0000
67	0.6061	0.1050	0.0850	0.0538	0.0100	0.0350	0.0000	0.0000	0.0127	0.0026	0.0116	0.0000
68	0.6927	0.1050	0.0850	0.0538	0.0100	0.0350	0.0000	0.0000	0.0133	0.0026	0.0126	0.0000
69	0.8659	0.1050	0.0850	0.0538	0.0100	0.0350	0.0000	0.0000	0.0139	0.0026	0.0137	0.0000
70	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Appendices

F.　　CAFR Schedules *(continued)*

Probabilities of Separation
Safety Members

Age	SVC RET	WITH (0<SVC<1)	WITH (1<SVC<2)	WITH (2<SVC<3)	WITH (3<SVC<4)	WITH (4<SVC<5)	WITH (SVC>5)	TERM Vested	Ordinary Disab.	Duty Disab.	Ordinary Death	Duty Death
<=20	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0070	0.0500	0.0000	0.0005	0.0005	0.0002
21	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0070	0.0500	0.0000	0.0006	0.0006	0.0002
22	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0070	0.0500	0.0000	0.0007	0.0006	0.0002
23	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0070	0.0500	0.0000	0.0007	0.0006	0.0002
24	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0070	0.0500	0.0000	0.0007	0.0007	0.0002
25	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0070	0.0500	0.0002	0.0009	0.0007	0.0002
26	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0070	0.0500	0.0002	0.0011	0.0007	0.0002
27	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0068	0.0142	0.0003	0.0012	0.0008	0.0002
28	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0065	0.0139	0.0003	0.0015	0.0008	0.0002
29	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0063	0.0136	0.0004	0.0018	0.0008	0.0002
30	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0060	0.0132	0.0004	0.0018	0.0009	0.0002
31	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0060	0.0129	0.0005	0.0022	0.0009	0.0002
32	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0060	0.0126	0.0005	0.0026	0.0009	0.0002
33	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0060	0.0115	0.0006	0.0028	0.0009	0.0002
34	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0060	0.0104	0.0006	0.0031	0.0009	0.0002
35	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0550	0.0096	0.0007	0.0035	0.0009	0.0002
36	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0055	0.0089	0.0008	0.0039	0.0009	0.0002
37	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0055	0.0081	0.0009	0.0045	0.0010	0.0002
38	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0055	0.0074	0.0010	0.0046	0.0010	0.0002
39	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0055	0.0066	0.0011	0.0046	0.0011	0.0002
40	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0050	0.0066	0.0012	0.0046	0.0012	0.0002
41	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0050	0.0066	0.0013	0.0046	0.0012	0.0002
42	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0050	0.0066	0.0014	0.0047	0.0013	0.0002
43	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0050	0.0066	0.0015	0.0049	0.0015	0.0002
44	0.0000	0.0600	0.0250	0.0200	0.0200	0.0100	0.0050	0.0066	0.0017	0.0052	0.0016	0.0002
45	0.0000	0.0600	0.0000	0.0000	0.0000	0.0000	0.0050	0.0046	0.0019	0.0068	0.0017	0.0003
46	0.0000	0.0600	0.0000	0.0000	0.0000	0.0000	0.0050	0.0046	0.0021	0.0077	0.0019	0.0003
47	0.0000	0.0600	0.0000	0.0000	0.0000	0.0000	0.0050	0.0046	0.0023	0.0087	0.0020	0.0003
48	0.0000	0.0600	0.0000	0.0000	0.0000	0.0000	0.0050	0.0046	0.0025	0.0095	0.0023	0.0003
49	0.0000	0.0600	0.0000	0.0000	0.0000	0.0000	0.0050	0.0046	0.0028	0.0100	0.0025	0.0003
50	0.3300	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0028	0.0100	0.0028	0.0003
51	0.2500	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0031	0.0100	0.0031	0.0003
52	0.2500	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0033	0.0100	0.0035	0.0003
53	0.3300	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0037	0.0100	0.0039	0.0003
54	0.3300	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0040	0.0100	0.0043	0.0003
55	0.5000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0043	0.0100	0.0048	0.0004
56	0.5000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0047	0.0100	0.0053	0.0004
57	0.5000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0051	0.0100	0.0060	0.0004
58	0.5000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0054	0.0100	0.0068	0.0004
59	0.5000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0058	0.0100	0.0076	0.0004
60	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Appendices

F.   CAFR Schedules *(continued)*

Schedule of Retired Members by Type of Benefit
As of June 30, 2003

Miscellaneous Members

	Count	Montly Allowance		
		Basic	COLA	Total
Service Retirement				
Unmod	3,100	3,340,190	1,277,096	4,617,286
Opt 1	232	225,934	73,003	298,937
Opt 2,3,&4	251	208,464	56,677	265,141
Total	3,583	3,774,588	1,406,776	5,181,364
Ordinary Disability				
Unmod	277	205,769	92,439	298,208
Opt 1	21	14,248	4,145	18,393
Opt 2,3,&4	8	5,893	2,108	8,001
Total	306	225,910	98,692	324,602
Duty Disability				
Unmod	175	191,285	102,395	293,680
Opt 1	6	7,873	2,445	10,318
Opt 2,3,&4	4	4,269	1,770	6,039
Total	185	203,427	106,610	310,037
Beneficiary				
Total	814	399,714	324,393	724,107
Total (all groups)	4,888	4,603,639	1,936,471	6,540,110

Safety Members

	Count	Montly Allowance		
		Basic	COLA	Total
Service Retirement				
Unmod	585	1,643,495	500,945	2,144,440
Opt 1	22	48,222	18,086	66,308
Opt 2,3,&4	30	77,744	18,516	96,260
Total	637	1,769,461	537,547	2,307,008
Ordinary Disability				
Unmod	18	24,319	13,698	38,017
Opt 1	-	-	-	-
Opt 2,3,&4	1	1,434	427	1,861
Total	19	25,753	14,125	39,878
Duty Disability				
Unmod	159	304,294	140,014	444,308
Opt 1	7	12,895	4,559	17,454
Opt 2,3,&4	3	5,052	1,230	6,282
Total	169	322,241	145,803	468,044
Beneficiary				
Total	169	164,856	131,640	296,496
Total (all groups)	994	2,282,311	829,115	3,111,426

Appendices

F. CAFR Schedules *(continued)*

Schedule of Average Benefit Payments for Retirees and Beneficiaries

Retirement Effective Dates 7/1/93-6/30/03	0-4	5-9	10-14	15-19	20-24	25-29	30 & OVER
Period 7/1/93-6/30/94:							
Average Monthly Benefit	$1,469	$1,184	$979	$759	$628	$535	$396
Number of Active Retirants	1,225	1,074	862	571	301	68	29
Period 7/1/94-6/30/95:							
Average Monthly Benefit	$1,505	$1,248	$1,037	$823	$652	$573	$610
Number of Active Retirants	1,337	1,103	877	627	328	82	33
Period 7/1/95-6/30/96:							
Average Monthly Benefit	$1,501	$1,283	$1,114	$893	$697	$633	$478
Number of Active Retirants	1,430	1,121	875	649	317	82	28
Period 7/1/96-6/30/97:							
Average Monthly Benefit	$1,539	$1,404	$1,151	$950	$760	$651	$485
Number of Active Retirants	1,501	1,092	902	683	337	104	27
Period 7/1/97-6/30/98:							
Average Monthly Benefit	$1,659	$1,472	$1,228	$1,007	$858	$698	$482
Number of Active Retirants	1,633	1,043	962	700	366	147	33
Period 7/1/98-6/30/99:							
Average Monthly Benefit	$1,639	$1,552	$1,313	$1,079	$923	$727	$579
Number of Active Retirants	1,667	1,262	979	744	432	179	40
Period 7/1/99-6/30/00:							
Average Monthly Benefit	$1,821	$1,675	$1,381	$1,180	$947	$729	$2,125
Number of Active Retirants	1,528	1,249	965	840	561	282	75
Period 7/1/00-6/30/01:							
Average Monthly Benefit	$1,758	$1,779	$1,439	$1,269	$1,047	$776	$770
Number of Active Retirants	1,433	1,287	1,002	815	610	308	71
Period 7/1/01-6/30/02:							
Average Monthly Benefit	$1,804	$1,865	$1,614	$1,376	$1,121	$859	$834
Number of Active Retirants	1,494	1,327	1,024	823	650	324	100
Period 7/1/02-6/30/03:							
Average Monthly Benefit	$1,842	$1,854	$1,839	$1,463	$1,207	$972	$819
Number of Active Retirants	1,447	1,312	1,117	849	664	348	145

Years Since Retirement

Appendices

G.   Glossary

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 if the System's current level of benefits were funded as a level percentage of pay each year from date of entry into the System by all current members and if interest at the current assumed investment return 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 System's Assets, actuaries sometimes use smoothing methods. These methods usually reflect the current market value of Assets in some manner.

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

Actuarial Gain (Loss). The difference between actual experience and the result anticipated using the Actuarial Assumptions produced 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:

1. Adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, Social Security, marital status, etc.)

2. 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

3. 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 periodic contributions required to maintain financial balance between inflow and outflow from a retirement System.

Assets. Underlying funds available to provide for the System's benefits. They reflect the accumulation of all contributions and investment earnings and the effect of all distributions and other payments.

Appendices

G.   Glossary *(continued)*

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

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

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

GASB Statement No. 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 target level of assets.

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

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

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

UAAL. See Unfunded Actuarial Accrued Liability.

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

MINUTES

RETIREMENT BOARD MEETING, NOVEMBER 20, 2003

The regular meeting of the Retirement Board was held in the Sacramento County Employees' Retirement System Administrative Office, U.S. Bank Plaza Building, 980 9th Street, 18ᵗʰ Floor, Sacramento, California, on November 20, 2003, at 1:00 p.m.

OPEN SESSION:

PUBLIC COMMENT:

1. None heard.

MINUTES:

2. The Minutes of October 16, 2003, were approved on motion made by Mr. Norris; Seconded by Mr. Kelly; Motion carried (6-0).

CLOSED SESSION:

DISABILITY MATTERS:

3. ALBERTS, Bruce: Action was taken on the Application for Disability Retirement as indicated per attached confidential memorandum dated November 21, 2003.

4. CONWAY, Karen: Action was taken on the Application for Disability Retirement as indicated per attached confidential memorandum dated November 21, 2003.

5. GEORGES, Melissa: Action was taken on the Application for Disability Retirement as indicated per attached confidential memorandum dated November 21, 2003.

DISABILITY MATTERS: (continued)

6.   LOWE, Audie: Action was taken on the Application for Disability Retirement as indicated per attached confidential memorandum dated November 21, 2003.

7.   MORAN, Gale: Action was taken on the Application for Disability Retirement as indicated per attached confidential memorandum dated November 21, 2003.

8.   RUSSELL, Lawrence: Action was taken on the Application for Disability Retirement as indicated per attached confidential memorandum dated November 21, 2003.

OPEN SESSION:

ADMINISTRATIVE MATTERS:

9.   Member Paul Merrill addressed the Board appealing staff denial of his request to purchase public service credit for time served with the Valley Mountain Regional Center. Following Mr. Merrill's explanation and Board review of Chief Benefits Officer Linda Seher's memo of November 6, 2003, Mr. Kelly moved to deny Mr. Merrill's appeal on basis of the Regional Center service not being service with a public agency as defined in Government Code Section 31478 and his service not being service as defined in Section 31479; Seconded by Mr. Johnson; Motion carried (8-0).

10-13. Marcia Chapman and Brenda Majdic, with Mercer Human Resources, Inc. presented the Actuarial Valuation Report As of June 30, 2003 and addressed the SCERS Chief Executive Officer's recommendations by memo dated November 13, 2003 relative to: the Board's Interest Crediting and Excess Earnings Policy, adoption of a thirty year amortization schedule for unfunded accrued actuarial liabilities, adoption of actuarially recommended employer and employee contribution rates and adoption of a 2.65% semi-annual interest crediting rate for December 31, 2003.

Following discussion, on motion made by Mr. Suter and Seconded by Mr. Kelly; the Board adopted the CEO's recommendations to: 1) establish a contingency reserve of 1%; 2) adopt a thirty year amortization schedule; 3) adopt the actuarially-recommended employee and employer contribution rates assuming no earnings transfers to mitigate against rate increases and a thirty year amortization schedule; and 4) adopt a 2.65% interest crediting rate for December 31, 2003. For clarification on contribution rates, the CEO pointed to Report page 10 (employee) and page 14 (employer aggregate weighted average 17.01%). Also for clarification and understanding of those present, in his memo and during discussion the CEO also observed that underperformance of the fund and adoption of the recommendations result in non-availability of SCERS earnings for non-vested retiree medical and dental coverage subsidization for fiscal year 2004-2005.

ADMINISTRATIVE MATTERS: (continued)

Also in attendance and addressing the Board was Geoff Davey, the County's Chief Financial Officer who supported adoption of the recommendations. Pat Adachi, President of the Sacramento County Retired Employees' Association and unnamed representatives of the Sacramento County Alliance of Law Enforcement were present but did not address the Board.

INVESTMENT MATTERS:

14. Following comments from Jeffrey States, Chief Investment Officer, on the proposed fee schedule for services provided by State Street Bank for trust and custody, performance analytics, securities lending and commission recapture, Jeffrey Kinsey, Vice President and Client Services Officer, and Karen Jacobs, Sr. Vice President of State Street Bank of California responded to questions. The Schedule of Fees and Expenses for services provided under the custody agreement with State Street Bank and Trust Company was approved on a motion by Mr. DeVore; Seconded by Mr. Woods; Motion carried (8-0).

15. The Board heard a detailed presentation of the Sacramento County Employees' Retirement System "Strategic Asset Allocation Study Using Asset & Liability Modeling Techniques Report" from Paul Graf, Mercer Human Resources and Tom Lightvoet and Marina Batliwalla of Mercer Investment Consulting. The purpose of the study is to assist the Board in determining the need to make any changes in the investment policy asset allocation. The study includes a process beginning with the development of an efficient frontier of expected investment returns plotted against risk for several alternative asset allocation mixes, including SCERS current asset allocation. Then the implications of the alternative mixes considering SCERS projected benefit obligations is evaluated by looking at projected total economic cost of the plan, the present value of the employer contributions and unfunded actuarial accrued liability over forecast periods of 5 and 10 years. After a thorough discussion of the study the Board requested Mercer evaluate some additional asset mixes for consideration at its next meeting, before it take action on making any changes to the investment policy asset allocation.

16. The Monthly Investment Compliance and Activity Report for the month of October 2003 was received and filed on a motion made by Mr. Kelly; Seconded by Mr. Norris; Motion carried (8-0).

The meeting was adjourned at 4:28 p.m.

MEMBERS PRESENT: President James A. Diepenbrock, 1st Vice-President Ron Suter, 2nd Vice-President John Kelly, Treasurer Mark Norris, Members William Cox, William D. Johnson, Robert Woods (arrived at 1:05), and Keith DeVore (arrived at 1:10).

MEMBERS ABSENT: Winston Hickox, Safety Alternate Steven Soto, and Alternate Nancy Wolford-Landers.

OTHERS PRESENT: Chief Executive Officer, John R. Descamp; Chief Investment Officer, Jeffrey W. States; Chief Benefits Officer, Linda Seher; Chief Operations Officer, Kathryn T. Regalia; Retirement Services Manager, Suzanne Likarich; Deputy County Counsel, J. Steven Burris; Deputy County Counsel, Diana Ruiz; Marcia Chapman, Brenda Majdic, and Paul Graf with Mercer Human Resources; Tom Lightvoet and Marina Batliwalla with Mercer Investment Consulting; Sr. Vice President, Karen Jacobs, and Vice President and Client Services Officer, Jeffrey Kinsey with State Street Bank; Paul Merrill; Sacramento County Retired Employees' Association President, Pat Adachi; two representatives from Sacramento County Alliance of Law Enforcement; Cameron Jahn of the Sacramento Bee, and Executive Secretary, Virginia Hayes.

Respectfully submitted,

SACRAMENTO COUNTY EMPLOYEES'
RETIREMENT SYSTEM

JOHN R. DESCAMP
Chief Executive Officer

APPROVED: _____
JAMES DIEPENBROCK, President

DATE: _____

cc: Retirement Board (10); Clerk, Board of Supervisors (6); County Counsel (2); County Executive; Human Resources Agency (3); Employee Organizations (5); Retired Employees' Association; SCERS Member Districts (10); and The Sacramento Bee.