BUCK CONSULTANTS
100 California Street Suite 1300
San Francisco, California 94111

April 27, 2001

Board of Retirement
Fresno County
Employees' Retirement Association
P.O. Box 1247
Fresno, California 93715-1247

Members of the Board:

We are pleased to present our report on the experience analysis and actuarial valuation of your retirement system as of June 30, 2000.

We hereby certify that the valuation was performed in accordance with generally accepted actuarial principles and practices.

We look forward to discussing this report with the Board and wish to express our appreciation for the invaluable cooperation extended to us by the Retirement Staff during the course of this study.

Respectfully submitted,

Krystyna H. Upstill, E.A., M.A.A.A.
Principal and Consulting Actuary

Michael Moehle, F.S.A., E.A., M.A.A.A.
Principal and Consulting Actuary

Eva Yum, F.S.A.
Associate Consulting Actuary

KHU/MM:abd

Buck Consultants, Inc.
415 | 392-0616 Fax 415 | 392-3991

FRESNO COUNTY

EMPLOYEES' RETIREMENT ASSOCIATION

REPORT ON THE ACTUARIAL VALUATION AS OF JUNE 30, 2000

BUCK CONSULTANTS

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SECTION I: EXECUTIVE SUMMARY

We were commissioned by the Board to perform an experience analysis and actuarial valuation of the retirement system as of June 30, 2000, using the statistical information available for the active, inactive and retired membership, and the financial statements as of that date.

The results presented herein are based upon the unaudited data supplied by the Retirement Office and the benefits for General and Safety members under Sections 31676.12, 31676.14, 31627 and 31664, respectively, of the County Employees Retirement Law of 1937.

Effective January 1, 2001, the County adopted new benefit provisions under Sections 31676.14 and 31627 for active members. The costs developed for this report reflect these benefit improvements.

A brief summary of the results of our valuation is presented below. More comprehensive information on each topic is presented in the relevant sections of the report.

Section II - Statistical Highlights

Total Association membership increased from 10,583 to 11,460. Active membership increased by 17.2% and total covered payroll increased by 24.6%.

The number of retired members went by 6.1% and the retired pension roll creased by 15.9%.

Section III - Summary of Actuarial Assumptions

Noneconomic Assumptions

We have examined the experience of the members of your Plan during the two year period from July 1, 1998 through June 30, 2000. We analyzed the data for two years regarding service retirements, deaths, disabilities and terminations of employment, and compared the number of actual terminations to the incidence expected using current actuarial assumptions. When the results differed materially, we recommend modifying the assumptions. The findings and adjustments made with regard to these rates are discussed in Section III.

Economic Assumptions

In order to insure that the same inflationary expectations are consistently included in all of the economic assumptions, we have used a building block approach in developing the economic assumptions. That is, we assumed that the investment return earned over the long term is comprised of two components: inflation and the real rate of return.

In addition, we have assumed that future salary increases are comprised of the following components: inflation and merit and longevity increases.

We recommend that the current 4.75% long-term inflation assumption be reduced to 4.50%. In addition, based upon future anticipated returns on the system's targeted asset mixes, we recommend that the current 3.50% future real rate of return be increased to 3.75%. Combining the inflation with the real rate of return results in a long-term investment return assumption of 8.25%. Since the 8.25% interest assumption is compounded biannually we used the effective rate of 8.42% in valuing the plans liability.

We incorporated the 4.50% inflation assumption into the long-term salary increase assumption.

Section IV - Contribution Rates

A comparison between the current employer and employee contribution rates and the rates recalculated in this study utilizing the same actuarial assumptions as those used to conduct the July 1, 1998 valuation is shown on the following page. In addition, we show the employer and employee contribution rates that would result from using the recommended assumptions based on the new benefit levels effective 1/1/2001. These results are shown separately for Sections 31676.14, 31664 and the total new 2.5% benefit formulas. The difference between benefits calculated under Sections 31676.14 and 31664, and the new 2.5% formula, are considered to fall under Section 31627.

	EMPLOYER		EMPLOYEE	
	% of Payroll	Annual Amount*	% of Payroll	Annual Amount*
Current Rates *8.25% interest, 4.75% inflation*				
Before Transfer	6.38%	$17,445,000	4.97%	$13,602,000
Recalculated Rates				
Study 1 (31676.12 and 31664) - Based on: *8.25% interest, 4.75% inflation, current noneconomic assumptions*				
Before Transfer	10.15%	$27,753,000	5.19%	$14,191,000
Study 2 (31676.12 and 31664) - Based on: *8.25% interest, 4.50% inflation, recommended noneconomic assumptions*				
Before Transfer	7.67%	$20,972,000	4.80%	$13,124,000
Study 3 (31676.14 and 31664) - Based on: *8.25% interest, 4.50% inflation, recommended noneconomic assumptions*				
Before Transfer	8.62%	$23,569,000	4.78%	$13,070,000
Study 4 (2.5% Formulas) - Based on: *8.25% interest, 4.50% inflation, recommended noneconomic assumptions*				
Before Transfer	11.91%	$32,565,000	6.55%	$17,909,000

*Based on June 30, 2000 payroll.

Note: In addition to the rates shown above, the employer makes contributions toward the POB equal to 8.74% of General and 9.02% of Safety payroll.

The overall increase in recalculated employer and employee contribution rates before any changes in the actuarial assumptions (Study 1) is primarily attributable to the 17.2% increase in active membership. The recommended actuarial assumptions (Study 2) caused a reduction in the employer and employee rates. This is the result of the lower future inflation assumption. Finally, the Study 3 and Study 4 result in higher rates as a result of the benefit improvements.

Section V - Assets and Liabilities

Actuarial Value of Assets

Under the current method differences between assumed and actual investment returns are being spread over five years; i.e., only 20% is recognized in any one year. As of June 30, 2000 the net actuarial value

of assets was $1,698,282,000 and the net market value of assets was $1,782,030,000. The return on investments, net of expenses, was 7.6% as of June 30, 1999 and 9.2% as of June 30, 2000, on a market value basis.

Actuarial Balance Sheet

The actuarial balance sheet compares the present value of all future benefits expected to be paid for the current membership with the sources of funds to be used to provide these benefits. It illustrates that if recommended contribution levels made in the future prove out over time, current assets plus future employer and member contributions will be adequate to meet future benefit payments for the current membership.

Funding Ratio - GASB 25

The Governmental Accounting Standards Board Statement No. 25 (GASB 25) requires that the funding progress be shown based on the same funding method which was used to develop the system's contribution requirements. The table below show the funding ratios based on the Entry Age Normal cost funding method.

SCHEDULE OF FUNDING PROGESS
GASB 25
(Dollar amounts in thousands)

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded AAL (UAAL)	Funded Ratio	Covered Payroll	UAAL as a Percentage of Covered Payroll
7/1/92*	$ 669,215	$ 831,356	$ 162,141	80.5%	$ 194,641	83.3%
7/1/94	$ 795,748	$ 1,008,658	$ 212,910	78.9%	$ 217,439	97.9%
7/1/96	$ 1,296,256	$ 1,470,331	$ 174,075	88.2%	$ 191,114	91.1%
7/1/98	$ 1,647,935	$ 1,549,166	($ 98,769)	106.4%	$ 219,398	(45.0%)
7/1/00	$1,698,282	$1,719,905	$21,623	98.7%	$273,426	7.9%

*Prepared by the prior actuary and unaudited by Buck Consultants.

Section VI - Appendix

A summary of the major provisions of the Plan is included in the Appendix, together with detailed information on the actuarial assumptions, demographic information and plan assets. General and Safety member contribution rates, by entry age, are shown in Schedule 5.

SECTION II: STATISTICAL HIGHLIGHTS

Our June 30, 2000 actuarial valuation of your Association was based on the following data. For comparison, we also show a summary of the June 30, 1998 statistical information.

SUMMARY OF ACTIVE MEMBERSHIP			
	June 30, 1998	June 30, 2000	Percentage Change During the Period
General			
Number	5,200	6,195	19.1%
Annual Payroll*	$ 181,813,000	$ 227,910,000	25.4%
Average Monthly Salary	$ 2,914	$3,066	5.2%
Average Age	43.54	43.23	(0.7)%
Average Service	9.82	9.11	(7.2)%
Safety			
Number	857	904	5.5%
Annual Payroll*	$ 37,585,000	$ 45,516,000	21.1%
Average Monthly Salary	$ 3,655	$4,196	14.8%
Average Age	40.16	40.22	0.1%
Average Service	10.63	10.69	0.6%
Total			
Number	6,057	7,099	17.2%
Annual Payroll*	$ 219,398,000	$ 273,426,000	24.6%
Average Monthly Salary	$ 3,019	$3,210	6.3%
Average Age	43.06	42.85	(0.5)%
Average Service	9.93	9.31	(6.2)%

*Represents the annualization of active members' pay rates on June 30.

SUMMARY OF INACTIVE MEMBERSHIP			
	June 30, 1998	June 30, 2000*	Percentage Change During the Period
General			
Number	1,378	1,061	(23.0)%
Safety			
Number	104	69	(33.7)%
Total			
Number	1,482	1,130	(23.8)%

*Excludes pending withdrawals.

SUMMARY OF RETIRED MEMBERSHIP			
	June 30, 1998	June 30, 2000*	Percentage Change During the Period
General			
Number	2,746	2,901	5.6%
Annual Allowance	$ 34,042,000	$ 38,690,000	13.7%
Average Monthly Allowance	$ 1,033	$ 1,111	7.6%
Safety			
Number	298	330	10.7%
Annual Allowance	$ 5,899,000	$ 7,588,000	28.6%
Average Monthly Allowance	$ 1,650	$ 1,916	16.1%
Total			
Number	3,044	3,231	6.1%
Annual Allowance	$ 39,941,000	$ 46,278,000	15.9%
Average Monthly Allowance	$ 1,093	$ 1,194	9.2%

* Excludes $15 supplemental retiree benefit.

SECTION III: SUMMARY OF ACTUARIAL ASSUMPTIONS

To carry out an actuarial valuation of the assets and liabilities of your Association, the actuary must first adopt assumptions with respect to each of the following items:

Noneconomic assumptions

- The probabilities of members separating from active service on account of nonvested and vested withdrawal, retirement for service, death, and disability, and
- The mortality rates to be experienced among retired persons.

Economic assumptions

- Interest earnings to be realized on the funds over many years in the future, and
- The relative increases in a member's salary from the date of the valuation to the date of separation from active service.

We discuss each of the above items in the following paragraphs of this Section.

NONECONOMIC ASSUMPTIONS

Rates of Separation from Active Service

In connection with the June 30, 2000 actuarial valuation, we compared the expected number of terminations from active service to the number that actually terminated during the two year period beginning July 1, 1998 and ending June 30, 2000. Based on this comparison, we recommend adjusting the probabilities of separation accordingly. The results of the investigation with respect to each rate of separation from active service are summarized in this section.

During the two-year period, the incidence of *withdrawal* was lower than expected for General and Safety members. Adjustments were made to the withdrawal rates for General male, General female and Safety members to more accurately reflect the actual experience of these groups.

Observed rates of *duty disability* over the two-year period were lower than those currently in use for General female members. Adjustments were made to reflect the actual incidence of duty disability.

Observed rates of *ordinary disability* over the two-year period were lower than those currently in use for General male members. Adjustments were made to reflect the actual incidence of ordinary disability.

Observed rates of *service retirement* over the two-year period were lower than those currently in use for General male and female and Safety members. Based on our expectation that members were waiting to retire after the new benefits were implemented, no adjustments were made to service retirement rates at this time.

Observed rates of *vested termination* over the two-year period were higher than those currently in use for General male members. Adjustments were made to reflect the actual incidence of vested termination.

None of the other types of separation deviated sufficiently over the two- and four-year periods to allow for statistically significant conclusions; hence, we recommend continuing the existing assumptions for the remaining types of separation.

The purpose of the table below is to provide the reader with a shorthand summary of the experience compared with the existing assumptions. A complete listing of the current and recommended rates of separation from active service can be found in Schedule 6 of the Appendix. These rates should be viewed in the aggregate rather than examining each of them separately. This is due to the interdependency of the rates. For example, if turnover were to increase, there would be fewer retirements.

"Expected separation" below means the number of terminations that would occur if the currently assumed probabilities were applied to your actual work force over the period under investigation.

SUMMARY OF ACTUARIAL INVESTIGATION WITH RESPECT TO RATES OF SEPARATION FROM ACTIVE SERVICE FOR THE 2-YEAR PERIOD ENDED 6/30/00			
	Actual Separations	**Expected Separations**	**Recommended Separations**
PRERETIREMENT DEATH			
General Male	16*	8.31	N/A
General Female	6	6.12	N/A
Safety	2	2.24	N/A
ORDINARY DISABILITY			
General Male	2	4.48	3.39
General Female	5	4.77	N/A
Safety	2	1.66	N/A
DUTY DISABILITY			
General Male	2	1.99	N/A
General Female	1	3.16	1.58
Safety	8	7.43	N/A
SERVICE RETIREMENT			
General Male	52	101.73	N/A**
General Female	74	130.47	N/A**
Safety	34	50.58	N/A**
VESTED TERMINATION			
General Male	82	48.09	62.52**
General Female	97	73.57	N/A**
Safety	12	18.57	N/A**
WITHDRAWAL			
General Male	127	171.21	138.22
General Female	221	358.62	278.06
Safety	25	52.46	39.36
TOTAL	**768**	**1,045.46**	

* There were only 6 deaths reported in the prior 2 years.
** These will be adjusted after patterns based on the 2.5% formula develop.

On the following pages, we show the number of members expected to eventually separate from active service for each of the various causes of termination based on both the current and recommended assumptions. We also show the percentage of members expected to eventually separate from the system, in pie chart format. For purposes of the chart, we have grouped the following:

- service retirement and terminated vested into Service,
- ordinary and duty disability into Disability, and

- ordinary death, duty death, and death while eligible into Death.

GENERAL MALE MEMBERS

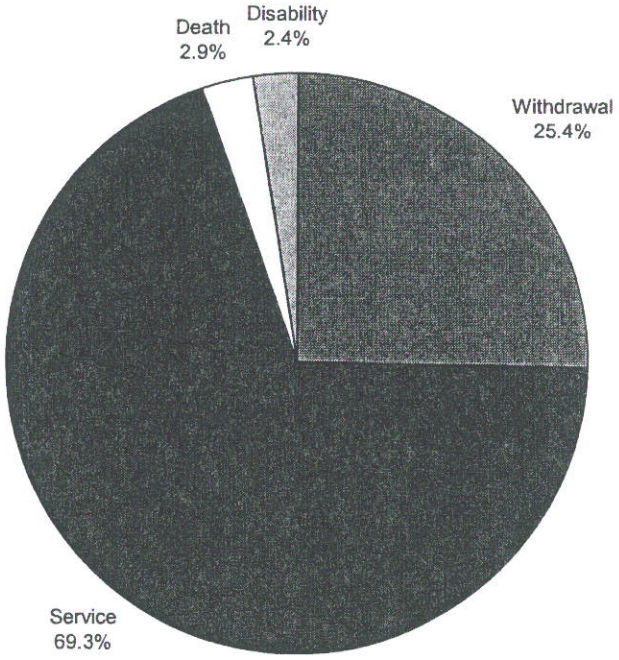
Current Assumptions

Expected Number to Eventually Separate for Indicated Cause*

Age	Number of Actives	Withdrawal	Service	Terminated Vested	Ordinary Death	Death While Eligible	Duty Death	Ordinary Disability	Duty Disability
20-24	62	53	4	4	0	0	0	0	0
25-29	228	166	32	25	2	1	0	1	1
30-34	230	117	62	41	3	2	0	3	1
35-39	274	89	116	54	4	4	1	5	2
40-44	307	62	178	47	6	5	1	7	3
45-49	392	45	285	35	7	7	1	9	4
50-54	450	34	368	20	7	7	1	9	4
55-59	261	12	230	6	3	3	0	4	2
60-64	68	2	64	1	1	1	0	0	0
65 & OVER	13	0	13	0	0	0	0	0	0
TOTAL	2,285	580	1,351	233	33	30	4	37	17
		25.4%	59.1%	10.2%	1.4%	1.3%	0.2%	1.6%	0.7%

* The individual numbers in the columns may not add to the total shown due to rounding

Expected Percentage to Eventually Separate for Indicated Cause



GENERAL FEMALE MEMBERS

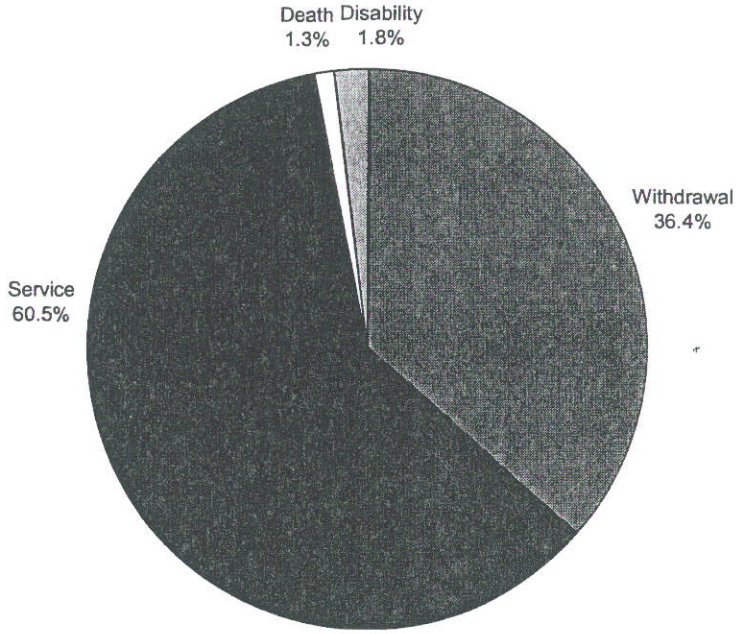
Current Assumptions

Expected Number to Eventually Separate for Indicated Cause*

Age	Number of Actives	Withdrawal	Service	Terminated Vested	Ordinary Death	Death While Eligible	Duty Death	Ordinary Disability	Duty Disability
20-24	165	145	9	10	1	0	0	0	0
25-29	413	321	47	39	2	1	0	2	1
30-34	470	277	108	74	4	1	0	4	3
35-39	516	224	187	87	6	1	0	6	4
40-44	589	191	297	78	8	2	0	8	5
45-49	676	150	442	57	9	2	0	10	6
50-54	626	87	488	27	7	2	0	9	6
55-59	305	22	266	8	3	1	0	3	2
60-64	126	4	118	1	1	0	0	1	1
65 & OVER	24	0	24	0	0	0	0	0	0
TOTAL	3,910	1,422	1,985	381	41	10	0	43	28
		36.4%	50.8%	9.7%	1.1%	0.2%	0.0%	1.1%	0.7%

* The individual numbers in the columns may not add to the total shown due to rounding

Expected Percentage to Eventually Separate for Indicated Cause



SAFETY MEMBERS

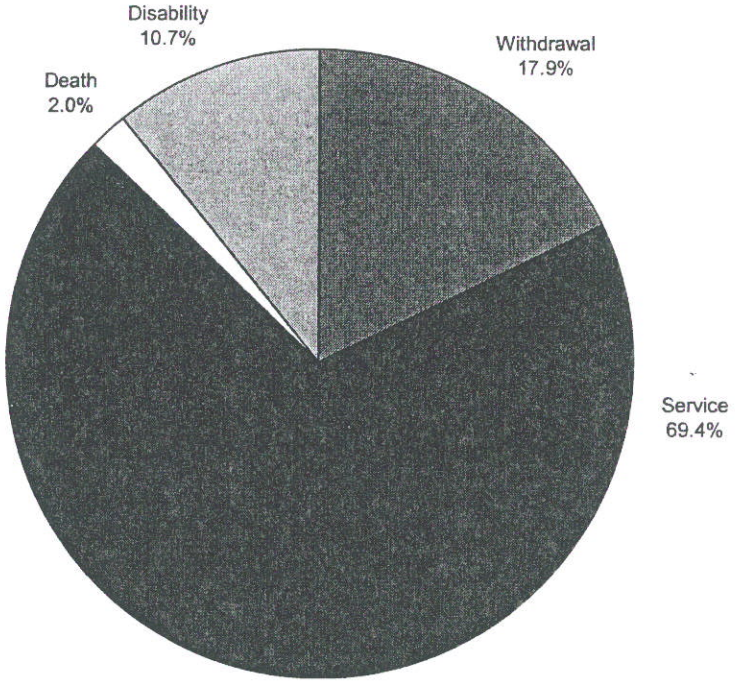
Current Assumptions

Expected Number to Eventually Separate for Indicated Cause*

Age	Number of Actives	Withdrawal	Service	Terminated Vested	Ordinary Death	Death While Eligible	Duty Death	Ordinary Disability	Duty Disability
20-24	24	15	4	3	0	0	0	0	1
25-29	126	58	34	23	1	0	1	1	8
30-34	166	50	70	25	1	1	1	3	15
35-39	150	25	89	12	1	1	1	3	17
40-44	132	10	97	3	1	1	1	3	16
45-49	128	4	106	0	1	1	1	2	14
50-54	137	1	122	0	1	1	1	1	11
55 & OVER	41	0	39	0	0	0	0	0	2
TOTAL	904	162	561	66	6	5	7	13	84
		17.9%	62.1%	7.3%	0.7%	0.6%	0.7%	1.5%	9.2%

* The individual numbers in the columns may not add to the total due to rounding and eligibility.

Expected Percentage to Eventually Separate for Indicated Cause



GENERAL MALE MEMBERS

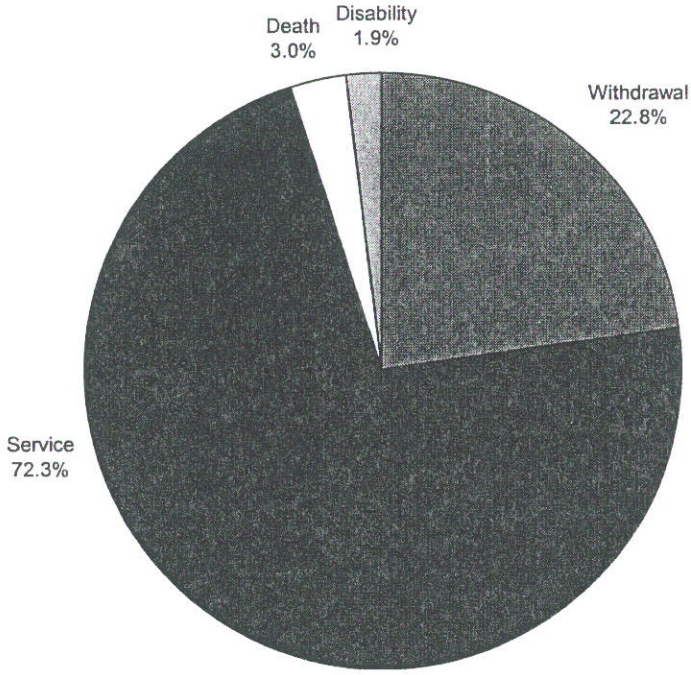
Recommended Assumptions

Expected Number to Eventually Separate for Indicated Cause*

Age	Number of Actives	Withdrawal	Service	Terminated Vested	Ordinary Death	Death While Eligible	Duty Death	Ordinary Disability	Duty Disability
20-24	62	48	6	7	0	0	0	0	0
25-29	228	140	40	42	2	2	0	1	1
30-34	230	97	66	58	3	2	0	2	1
35-39	274	85	107	68	4	3	1	3	2
40-44	307	60	169	60	5	5	1	5	3
45-49	392	44	278	45	7	7	1	6	4
50-54	450	34	365	26	7	7	1	7	4
55-59	261	12	230	8	3	3	0	3	2
60-64	68	2	64	1	1	1	0	0	0
65 & OVER	13	0	13	0	0	0	0	0	0
TOTAL	2,285	522	1,337	314	34	30	4	28	17
		22.8%	58.5%	13.8%	1.5%	1.3%	0.2%	1.2%	0.7%

* The individual numbers in the columns may not add to the total shown due to rounding

Expected Percentage to Eventually Separate for Indicated Cause



GENERAL FEMALE MEMBERS

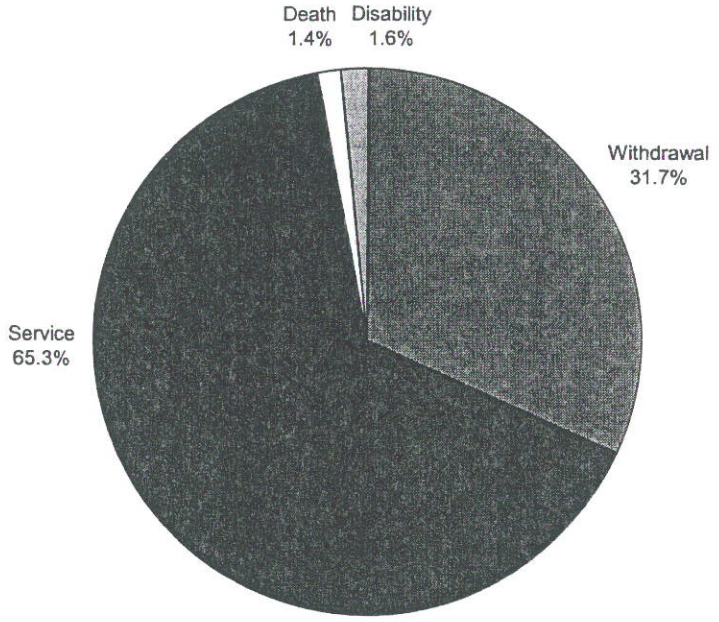
Recommended Assumptions

Expected Number to Eventually Separate for Indicated Cause*

Age	Number of Actives	Withdrawal	Service	Terminated Vested	Ordinary Death	Death While Eligible	Duty Death	Ordinary Disability	Duty Disability
20-24	165	135	15	13	1	0	0	1	0
25-29	413	278	75	53	3	1	0	3	1
30-34	470	231	141	86	5	1	0	5	2
35-39	516	187	217	94	7	1	0	7	2
40-44	589	164	321	82	8	2	0	9	3
45-49	676	136	457	58	9	2	0	10	3
50-54	626	83	495	28	7	2	0	9	3
55-59	305	22	267	8	3	1	0	3	1
60-64	126	4	118	1	1	0	0	1	0
65 & OVER	24	0	24	0	0	0	0	0	0
TOTAL	3,910	1,240	2,129	423	45	11	0	47	15
		31.7%	54.5%	10.8%	1.1%	0.3%	0.0%	1.2%	0.4%

* The individual numbers in the columns may not add to the total shown due to rounding

Expected Percentage to Eventually Separate for Indicated Cause



SAFETY MEMBERS

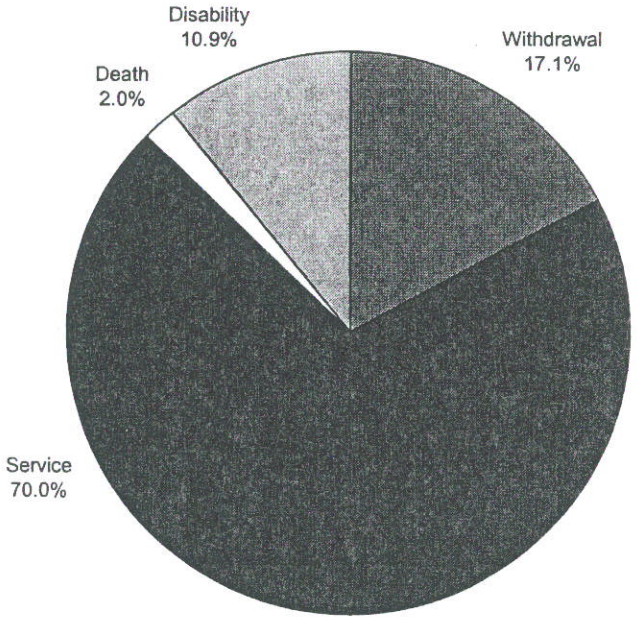
Recommended Assumptions

Expected Number to Eventually Separate for Indicated Cause*

Age	Number of Actives	Withdrawal	Service	Terminated Vested	Ordinary Death	Death While Eligible	Duty Death	Ordinary Disability	Duty Disability
20-24	24	14	5	3	0	0	0	0	1
25-29	126	56	36	23	1	1	1	2	8
30-34	166	47	72	26	1	1	1	3	15
35-39	150	24	91	12	1	1	1	3	17
40-44	132	10	97	3	1	1	1	3	16
45-49	128	4	106	0	1	1	1	2	14
50-54	137	1	122	0	1	1	1	1	11
55 & OVER	41	0	39	0	0	0	0	0	2
TOTAL	904	154	566	67	6	5	7	14	85
		17.1%	62.6%	7.4%	0.7%	0.6%	0.8%	1.5%	9.4%

* The individual numbers in the columns may not add to the total due to rounding and eligibility.

Expected Percentage to Eventually Separate for Indicated Cause



Mortality After Service Retirement

We also analyzed mortality after service retirement by comparing the expected number of deaths with the actual incidence of death after service retirement. This comparison was made by utilizing the following mortality tables currently in use:

Current Service Retirement Mortality Tables

General Males	1983 Group Annuity Mortality Table for Males, with no setback
General Females	1983 Group Annuity Mortality Table for Females, with no setback
Safety	1983 Group Annuity Mortality Table for Males, set back 1 year

During the two-year period under investigation, the actual number of deaths was lower than expected for General male members and Safety members and slightly higher than expected for General females. Based on these results, we recommend changing to the newer 1994 Group Annuity Mortality Table set forward one year for General female members and with no setback for General male and Safety members. The number of expected deaths based on the recommended mortality tables is shown in the chart below in the column labeled "Revised".

NUMBER OF DEATHS AFTER SERVICE RETIREMENT			
	Actual	**Expected 1983 GAM**	**Revised 1994 GAM**
• General Males and Male Beneficiaries	63	78.9	69.0
• General Females and Female Beneficiaries	103	99.1	104.2
• Safety Members	5*	8.7	8.1
Total	171	186.7	181.3

* There were 13 deaths in the prior 2 years.

Recommended Service Retirement Mortality Tables

General Males	1994 Group Annuity Mortality Table for Males, with no setback
General Females	1994 Group Annuity Mortality Table for Females, set forward 1 year
Safety	1994 Group Annuity Mortality Table for Males, with no setback

A full listing of the life expectancies based on the current and recommended tables is shown in Schedule 7 of the Appendix. Study 2, Study 3 and Study 4 employer costs developed for this report are based upon the recommended tables.

We recommend that employee contribution rates be based on the following unisex mortality tables:

Mortality Tables for Employee Contribution Rates

General Members	1994 Group Annuity Mortality Table for Males, set back 2 years
Safety Members	1994 Group Annuity Mortality Table for Males, with no set back

The full set of employee contribution rates is shown in Schedule 5 of the Appendix.

In addition, we recommend that the following mortality tables be used to perform retirement allowance calculations:

Mortality Tables for Retirement Allowance Calculations

General Members & Beneficiaries	1994 Group Annuity Mortality Table for Males, set back 2 years
Safety Members	1994 Group Annuity Mortality Table for Males, with no set back
Safety Beneficiaries	1994 Group Annuity Mortality Table for Females, set forward 1 year

Mortality After Disability Retirement

We also analyzed mortality after disability retirement. This comparison was made by utilizing the following mortality tables currently in use:

Current Disability Retirement Mortality Tables

General	1981 Disability Mortality Table for General Members
Safety	1981 Disability Mortality Table for Safety Members

The results of the experience analysis are as follows:

NUMBER OF DEATHS AFTER DISABILITY RETIREMENT			
	Actual*	**Expected**	**Revised**
• General Members	18	14.8	N/A
• Safety Members	5	2.6	N/A
Total	23	17.4	N/A

* There were 11 General and 2 Safety member deaths during the prior 2 years

We recommend that the current disability mortality tables continue to be used to determine life expectancy after disability retirement. A full listing of the life expectancies based on these tables is shown in Schedule 7 of the Appendix.

ECONOMIC ASSUMPTIONS

In setting the economic assumptions, we take a building block approach. Specifically, we first look at the rate of inflation which underlies both the total rate of return and the salary scale assumptions. To aid us in determining an appropriate inflation rate for your Association, we have reviewed long term historical inflation averages, recent trends, and the assumptions adopted by other public retirement systems governed by the 1937 Act. It should be noted that we have placed more emphasis on long term historical averages and long term future predictions than on the more recent, short term trends. This helps to minimize fluctuations which are more apparent in short term trends.

Secondly, we review the anticipated real rate of return on investments. The real rate of return is dependent on the anticipated returns on classes of investments and the asset allocation of the Association's funds. To develop the individual real rates of return we utilize various empirical studies. By applying the results of these studies to the Association's target asset allocation, we develop the real rate of return. This rate may then be adjusted for any known or anticipated changes in the economy that may occur. Using our building block approach, we combine the underlying inflation assumption with the real rate of return to develop the total rate of return assumption (interest rate assumption).

The salary scale assumption is developed in a similar manner. The inflation rate is combined with merit and longevity increases to produce a total salary scale assumption.

Inflation

One of the most important assumptions used in valuing the Association's liabilities is the rate of inflation. This assumption underlies both the investment return assumption and the salary increases assumption. These in turn directly impact the employer and employee contribution rates.

Because of the cyclical nature of inflation and the long term nature of the Association's liabilities, we believe that it is appropriate to assume that the average inflation rate to be experienced over the next 30 to 50 years (which is approximately the lifetime of the present obligations of the Association) will be between 4.00% and 5.00%.

The current long term inflation assumptions adopted by the other 1937 act counties are shown in the following chart. The average inflation assumption for these systems is currently 4.43%.

CURRENT LONG-TERM INFLATION ASSUMPTIONS ADOPTED BY OTHER 1937 ACT COUNTIES			
Retirement System	**Assumed Inflation Rate**	**Retirement System**	**Assumed Inflation Rate**
Alameda	4.50%	Sacramento	4.25%
Contra Costa	4.25%	San Bernardino	4.50%
Fresno	**4.75%**	San Diego	4.00%
Imperial	4.50%	San Joaquin	4.50%
Kern	4.50%	San Mateo	4.25%
Los Angeles	4.00%	Santa Barbara	4.75%
Marin	4.25%	Sonoma	4.50%
Mendocino	4.75%	Stanislaus	4.50%
Merced	4.50%	Tulare	4.50%
Orange	4.50%	Ventura	4.25%

Based on the information presented in this section, we recommend that the current inflation rate assumption be reduced to 4.50%.

Real Rate of Return

The first step in developing a real rate of return is to analyze how the Association's assets are allocated among the various investment classes. Based on this information, we can then apply the anticipated rate of return to the respective classes and develop an overall estimated real rate of return. The Association has adopted the following target asset allocation:

ASSET ALLOCATION AS OF JUNE 30, 2000 (Market Value)	
	Target
Equity	55%
Fixed Income/Bonds	34%
Cash and Short Term	1%
Alternative Investments	10%

There have been numerous studies performed which analyze the expected long-term real rates of return for use in asset allocation models. Roger Ibbotson and Rex A. Sinquefield produced one of these studies for the period 1926-1999 called Stocks, Bonds and Inflation: Simulations of the Future. The results of this study are presented below.

Ibbotson-Sinquefield Real Rates of Return (1926 - 1999)	
Stocks	8.0%
Long-term government bonds	2.0%
Long-term corporate bonds	2.5%
Treasury bills	0.7%

Applying the Association's target asset allocation to the real rates of return in the table above produces a real rate of return of approximately 6.0% (assuming an equal proportion of government and corporate bonds, and a 8.0% return on alternative investments). This rate, however, should be adjusted to reflect administrative expenses as well as potential adverse future experience.

After making these adjustments, we believe that a real rate of return of 3.75% provides a reasonable degree of conservatism when used with a 4.50% inflation rate. This leads to an 8.25% or an 8.00% investment return assumption.

The return on assets, net of expenses, experienced by the Fund since 1982 is shown below. The increase in the Consumer Price Index is also shown for comparative purposes.

Net Return on Assets vs. Increase in Consumer Price Index			
Year Ended	Net Return @ Book Value	Net Return @ Market Value	Increase in Consumer Price Index *
June 30, 1982	9.8%		7.1%
June 30, 1983	10.4%		2.6%
June 30, 1984	10.2%		4.2%
June 30, 1985	9.8%		3.8%
June 30, 1986	12.9%		1.8%
June 30, 1987	14.7%		3.7%
June 30, 1988	12.2%		4.0%
June 30, 1989	8.4%		5.2%

Net Return on Assets vs. Increase in Consumer Price Index			
Year Ended	Net Return @ Book Value	Net Return @ Market Value	Increase in Consumer Price Index*
June 30, 1990	10.8%		4.7%
June 30, 1991	9.0%		4.7%
June 30, 1992	12.0%	12.8%	3.1%
June 30, 1993	14.2%	12.3%	3.0%
June 30, 1994	11.6%	1.9%	2.5%
June 30, 1995	9.5%	15.6%	3.0%
June 30, 1996	11.0%	14.0%	2.8%
June 30, 1997	N/A	20.0%	2.3%
June 30, 1998	N/A	19.3%	1.7%
June 30, 1999	N/A	7.6%	2.0%
June 30, 2000	N/A	9.2%	3.7%
9-Year Average	N/A	12.4%	2.7%

*Based on All Urban Consumers - U.S. City Average, June indices.

Recommendation

Based on the information provided in this section, we recommend that the 8.25% long term interest rate assumption compounded biannually be used.

Merit and Longevity Increases

The merit and longevity component of the total salary scale assumption reflects increases in members' salaries due to promotions, advances in pay grades, etc. These increases are dependent on an individual's membership and are graded downward as members age.

The overall effect of the merit and longevity increases is to add approximately 1.00% to the total salary scale assumption. Combined with the 4.50% inflation rate, the total recommended salary scale assumption amounts to 5.50%.

SECTION IV: CONTRIBUTION RATES

A comparison between the current employer and employee contribution rates and the rates recalculated in this study utilizing the same actuarial assumptions as those used to conduct the July 1, 1998 valuation is shown below. In addition, we show the employer and employee contribution rates that would result from using the recommended noneconomic assumptions (Study 2) and the rates that would result from using a lower interest and inflation rate assumption (Study 3).

	EMPLOYER		EMPLOYEE	
	% of Payroll	Annual Amount*	% of Payroll	Annual Amount*
Current Rates *8.25% interest, 4.75% inflation*				
Before Transfer	6.38%	$17,445,000	4.97%	$13,602,000
Recalculated Rates				
Study 1 (31676.12 and 31664) - Based on: *8.25% interest, 4.75% inflation, current noneconomic assumptions*				
Before Transfer	10.15%	$27,753,000	5.19%	$14,191,000
Study 2 (31676.12 and 31664) - Based on: *8.25% interest, 4.50% inflation, recommended noneconomic assumptions*				
Before Transfer	7.67%	$20,972,000	4.80%	$13,124,000
Study 3 (31676.14 and 31664) - Based on: *8.25% interest, 4.50% inflation, recommended noneconomic assumptions*				
Before Transfer	8.62%	$23,569,000	4.78%	$13,070,000
Study 4 (2.5% Formulas) - Based on: *8.00% interest, 4.50% inflation, recommended noneconomic assumptions*				
Before Transfer	11.91%	$32,565,000	6.55%	$17,909,000

*Based on June 30, 2000 payroll.

MEMBER CONTRIBUTION RATES

Member Basic Contributions

Sections 31621.5 and 31621.3 set forth the basis for the determination of the normal rates of contribution for General members under Sections 31676.12 and 31676.14, respectively. Section 31639.5 sets forth the basis for the normal rates of contribution for Safety members.

The law further provides that the contribution rates of members will be based on the age nearest birthday at the time of entrance into the Retirement Association. Section 31453 states that no adjustment will be included in the rates of contribution for time prior to the effective date of any revisions. Note that the law was changed in 1976 to remove the sex differential in member contribution rates.

The basic employee contribution rates for General members were calculated on a unisex basis using the 1994 Group Annuity Mortality Table for Males with a 2 year setback. The Safety basic employee rates are based upon the 1994 Group Annuity Mortality Table for Males with no set back. These reflect the new recommended mortality assumptions.

Employee basic contribution rates for Study 4 reflect the 2.5% benefit formulas effective January 1, 2001.

Cost of Living Contributions

The employee portion of the cost-of-living provision is expressed as a percentage of the employees' normal contribution rates. The current cost of living percentage, before transfers, is 55.45% for all members. This cost of living percentage increases to 53.34% for Study 4. The decrease in the cost of living percentage from the prior valuation to Study 4 reflects the changes in actuarial assumptions and the new benefit levels.

A summary of the average basic and cost of living employee contribution rates based on Study 1, Study 2, and Study 3 is provided below. Rates at sample ages are also shown.

AVERAGE MEMBER BASIC AND COST OF LIVING CONTRIBUTION RATES		
	General	Safety
Current Rates		
Before Transfer	4.82%	5.75%
After Transfer	3.10%	3.70%
Recalculated Rates		
Study 1		
Before Transfer	5.03%	5.97%
Study 2		
Before Transfer	4.58%	5.77%
Study 3		
Before Transfer	6.49%	6.81%

SAMPLE GENERAL MEMBER CONTRIBUTION RATES* Before Transfers			
Entry Age	Study 1	Study 2	Study 3
25	4.69%	4.22%	5.98%
35	5.41%	4.95%	7.01%
59	7.69%	6.80%	9.65%

*These are half rates payable by the member. Contribution rates for the first $350.00 of monthly salary are one-third lower for members covered by Social Security.

SAMPLE SAFETY MEMBER CONTRIBUTION RATES* Before Transfers			
Entry Age	Study 1	Study 2	Study 3
25	5.96%	5.71%	6.76%
35	6.81%	6.68%	7.90%
49	8.32%	8.42%	9.94%

*These are half rates payable by the member. Contribution rates for the first $350.00 of monthly salary are one-third lower for members covered by Social Security.

Schedule 5 in the Appendix contains the complete set of recommended members' basic and cost-of-living contribution rates. The interest rate, mortality table, inflation rate, and cost-of-living benefit are indicated on the bottom of the schedules.

EMPLOYER CONTRIBUTION RATES

Employer contributions have been determined under the Entry Age Normal Actuarial Cost Method, permitted by Section 31453.5. The Entry Age Normal method defines the Normal Cost as the level percentage of salary necessary to fund the projected future benefit over the period from the date of entry to the date of separation from active service. The Actuarial Accrued Liability is the cost allocated to years prior to the actuarial valuation date; it is the excess of the total value of benefits over the value of future member contributions and the value of future Normal Costs. The difference between the Actuarial Accrued Liability and the plan assets is called the Unfunded Actuarial Accrued Liability which is funded (amortized) as a level percentage of projected future payroll over 10 years from June 30, 2000.

The following chart specifies the employer contributions expressed as a level percentage of payroll for the current rates and the rates recommended in this valuation (Study 4). The recommended rates do not reflect any reduction based on the balance of the transfers made through 6/30/99. Please note that as of 6/30/00 the outstanding balance of the transfers was $18.8 million for members and $57.8 million for the employers.

TOTAL EMPLOYER CONTRIBUTION RATES (before transfers) Current and Recommended (Study 4)						
	General Members		Safety Members		All Members*	
	Current	Recommended**	Current	Recommended**	Current	Recommended**
Total Rate	5.42%	9.32%	11.17%	24.88%	6.38%	11.91%

*Weighted by June 30, 2000 payroll.

**Net of any transfers.

The overall increase in total employer contribution rates was primarily attributable benefit improvements.

RECOMMENDATIONS

We recommend that the Board adopt Study 4 contribution rates as shown in this section. These rates reflect the recommended noneconomic and economic actuarial assumptions, the 2.5% benefit formulas effective January 1, 2001 and the $15 per year of service supplemental retiree benefit. They are based on the Entry Age Normal Actuarial Cost Method with an unfunded actuarial accrued liability amortized as a level percentage of payroll over 10 years from June 30, 2000, and utilize a smoothed market value of assets. This combination of assumptions and methods reflects our best judgment of future long term experience for the Association.

Employer contribution rates at the recommended level expressed as a percentage of payroll are shown below. Please note that these rates do not reflect the balance of any transfers.

	GENERAL	SAFETY
Total Employer Rate before transfers	9.32%	24.88%

The recommended employee contribution rates are shown in Schedule 5 of the Appendix.

RETIREE HEALTH INSURANCE BENEFITS

As requested, we have calculated the liabilities associated with the current monthly retiree supplemental health benefits ($45 plus $6.50 per year of service up to an $240.00 maximum for employees hired before 1/1/90 and $8.00 per year of service up to an $240.00 maximum for employees hired on or after 1/1/90). Our results are based upon the current retirees and members retiring in the future from the current active and inactive group.

The present values determined as of July 1, 2000 are shown below. These amounts reflect the current economic actuarial assumptions and the new recommended noneconomic actuarial assumptions. Note that new employees hired after July 1, 2000 are excluded from this analysis.

RETIREE HEALTH INSURANCE BENEFITS	
Present Value of Benefits	
Current Actives and Inactives	$46,340,000
Current Retirees	54,914,000
Total Present Value	101,254,000
Less: Retiree Health Insurance Reserve	92,259,000
Net Unfunded	$8,995,000

Presently, the assets supporting the supplemental benefits are held in a health insurance reserve. As of June 30, 2000 (the valuation date of the present value of benefits), the health insurance reserve amounted to $92,259,000, including $28.4 million which represents the proportionate share of the $253 million undistributed earnings.

SECTION 31874.3(b) SUPPLEMENTAL BENEFITS

Section 31874.3(b) of the Government Code authorizes the Board to provide supplemental benefit increases to retirees whose accumulated unused COLA equals, or exceeds, 25%. In Table 1 below, we show the unused cost-of-living accumulations for retirees that meet the 25% eligibility criteria defined by Section 31874.3(b).

TABLE 1	
Retirement Date	Accumulated Unused COLA Through April 1, 2001 (Section 31870.1)
On or Before 4/1/73	72.0%
4/2/73 to 4/1/74	71.5%
4/2/74 to 4/1/75	68.5%
4/2/75 to 4/1/76	61.5%
4/2/76 to 4/1/77	54.5%
4/2/77 to 4/1/78	52.0%
4/2/78 to 4/1/79	47.5%
4/2/79 to 4/1/80	41.0%
4/2/80 to 4/1/81	35.5%
4/2/81 and after	not eligible

As shown in Table 1 above, all retirees with effective retirement dates on or before April 1, 1981 would be eligible to receive a supplemental COL benefit based on the unused COLA through April 1, 2001.

Supplemental Benefit Formula

In Table 2 on below, we show the percentage increase in benefits for the eligible retirees.

TABLE 2		
Retired on or Before	Accumulated Unused COLA through April 1, 2000	Percentage Increase Based on the 25% Floor
4/1/73	72.0%	47.0%
4/1/74	71.5%	46.5%
4/1/75	68.5%	43.5%
4/1/76	61.5%	36.5%
4/1/77	54.5%	29.5%
4/1/78	52.0%	27.0%
4/1/79	47.5%	22.5%
4/1/80	41.0%	16.0%
4/1/81	35.5%	10.5%

To illustrate the amount of supplemental benefits, we take for example, a member who retired January 1, 1973 and is currently receiving $1,000 per month in basic and COL benefits. This member's unused COLA is 47%.

This member would receive a 47% (72% - 25%) increase, or $470 ($1,000 *.47%) per month.

Summary of Costs

The annual benefits and corresponding lump sum costs needed to prefund these benefits on an ongoing basis (i.e., the lifetimes of the member and beneficiary) for members retired on 4/1/81 and earlier are shown on the following page.

For purposes of our calculations, we have assumed the following:

- the annual supplemental benefits will not increase, (i.e., the benefit will not be revised to reflect future inflation nor future losses in purchasing power nor COLA increases);
- the eligibility will remain the same (i.e., no new retirees will be included in the future);

- the supplemental COL benefit will be continued to the eligible spouse based on the option chosen at retirement; and
- the current economic and new recommended noneconomic assumptions.

	Number Eligible	Annual Benefit	Present Value of Benefits
25% Floor	784	$1,955,000	$11,929,000

A reserve to fund this benefit amounted to $10,033,000 as of June 30, 2000. Based on the current retiree population eligible for this benefit, the additional amount needed to prefund this benefit is $1,896,000 ($11,929,000 – $10,033,000), as of June 30, 2000.

The costs shown will increase if future Board actions are taken to provide any additional cost-of-living supplements to affected individuals or to extend this supplement to other retired members.

ACTUARIAL VALUE OF ASSETS

For the June 30, 1998 valuation, the Association adopted the use of a five-year smoothed market value basis. Under this method, differences between assumed and actual investment return are being spread over five years. That is, only 20% is recognized in any one year.

The actuarial value of assets was determined as follows:

(Dollar Amounts In Thousands)

1. Net Market Value of Assets as of 6/30/94 $783,165

2. Additions

FY End 6/30	(a) Contributions	(b) Benefit Payments	(c) Expected Investment Return	(d) Actual Investment Return (Net of Expenses)	(e) Additional Earnings ((d) – (c))	(f) 5-Year Cumulative Additional Earnings	(g) Recognized Additional Earnings .20 x (f)
1995	$29,430	$36,639	$65,640	$121,938	$56,298	$56,298	$11,260
1996	34,506	38,878	71,628	125,040	53,412	109,710	21,942
1997	38,753	47,034	78,974	202,920	123,946	233,656	46,731
1998	209,718	46,588	92,212	249,280	157,068	390,724	78,145
1999	13,780	48,766	115,817	104,420	(11,415)	379,309	75,862
2000	9,198	54,498	128,576	132,303	3,727	326,738	65,348
Total	$335,385	$272,403	$552,847				$299,288

Total Additions = (a) – (b) + (c) + (g) $915,117

3. Actuarial Value of Assets as of 6/30/00 = (1) + (2) $1,698,282

The net market value of assets as of June 30, 2000 is $1,782,030,000. The difference between the actuarial value and the market value of assets, or $83,748,000, becomes the market stabilization reserve. This reserve will tend to stabilize asset fluctuations in the future.

For contribution rate purposes, the actuarial value of assets has been reduced by approximately $76.7 million to reflect the balance of *past* transfers made to the Advance Reserves. Of this amount, $2.6 million is the remaining balance of the 1989 on-going COL transfer for employees.

In addition, certain reserves are excluded from the actuarial value of assets used in developing employer contribution rates. These are the Supplemental COL, Retiree Health Insurance, and Undistributed Earnings reserves.

The $253 million undistributed earnings as of 6/30/2000 was distributed into the Advance Reserve and the Retiree Health Insurance Reserve in proportion to the Study 4 liabilities as follows: County Advance Reserves: $224.2 million, Retiree Health Insurance Reserve: $28.4 million.

Special Reserve for Interest Fluctuation

The Special Reserve for Interest Fluctuation at market value is $17,820,000 as of June 30, 2000. This reserve has been funded by investment income that has exceeded the interest crediting benchmark over the years. It will be utilized to supplement investment income in shortfall periods. The following describes its importance in the operation of the 1937 Act and the setting of actuarial interest rates.

There are two aspects to the application of the actuarial interest rate in 1937 Act retirement systems: (1) The expected long-term total rate of return on the funds, and (2) a short-term benchmark for the semiannual crediting of interest on the fund's reserves.

With respect to the second application, six-month returns on the fund are volatile, due to the short measuring period. In some six-month periods, the returns will exceed the benchmark, and in others they will fall short. Given that the actuarial rate serves as a benchmark, there is a natural tendency to minimize the probability of a shortfall by setting a lower benchmark. The restricted balance counteracts this tendency by serving as a stabilizing mechanism which allows the county retirement systems to consistently maintain a higher level of interest crediting on reserve accounts that are used to determine employer contribution rates.

Thus, the restricted balance mechanism is a factor in the actuarial interest rate setting process. We can focus on the expected long-term total rate of return in setting the interest rate assumption rather than on the short-term downside risks.

ACTUARIAL BALANCE SHEET

We first determine the amount and timing of all future payments that will be made by the Association. We then discount these payments at 8.25% (8.42% compounded biannually) to June 30, 2000, the date of the valuation, thereby determining their present value.

Second, in the upper portion, we determine how this liability will be met. Item 1 in the Balance Sheet represents the amount of assets already accumulated by the Association at Actuarial Value. Item 2 is the present value of the contributions anticipated to be received in the future from the current members. Item 3 is the present value of future employer normal costs with respect to current members.

Finally, we compare the existing assets plus the present value of the future normal costs and future member contributions to the present value of the benefits to be paid from the Association. This shortfall (or balancing item) is known as the Unfunded Actuarial Accrued Liability of your Association. In the text we will abbreviate it as UAAL. The UAAL is amortized as a level percentage of payroll for the next 10 years from June 30, 2000.

ACTUARIAL BALANCE SHEET AS OF JUNE 30, 2000	
Assets	
1. Actuarial value of assets	$1,698,282,000
2. Present value of future contributions by members*	127,164,000
3. Present value of future employer contributions for normal cost*	183,002,000
4. Present value of other future employer contributions (UAAL)	21,623,000
5. Total actuarial assets	$2,030,071,000
Liabilities	
6. Present value of retirement allowances payable to retired members and their survivors	$622,130,000
7. Present value of service retirement allowances payable to presently active members and their survivors	1,033,151,000
8. Present value of allowances payable to vested terminated members and their survivors	157,462,000
9. Present value of disability retirement allowances payable to presently active members and their survivors	59,267,000
10. Present value of death benefits payable on behalf of presently active members	14,202,000
11. Present value of members' contributions to be returned upon withdrawal	41,567,000
12. Undistributed earnings	0
13. Retiree health insurance reserve	92,259,000
14. Supplemental COLA reserve	10,033,000
15. Total actuarial liabilities	$2,030,071,000

* Reduced by the remaining employee and employer transfers of $18,862,000 and $57,800,000 respectively.

FUNDING RATIO GASB 25

The Government Accounting Standards Board Statement No. 25 (GASB 25) requires that the funding progress be shown based on the same funding method which was used to develop the system's contribution requirements. The table below shows the funding ratios based on the Entry Age Normal cost funding method. We also show the required employer contributions under GASB 25.

SCHEDULE OF FUNDING PROGESS GASB 25 (Dollar amounts in thousands)						
Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded AAL (UAAL)	Funded Ratio	Covered Payroll	UAAL as a Percentage of Covered Payroll
7/1/92*	$ 669,215	$ 831,356	$ 162,141	80.5%	$ 194,641	83.3%
7/1/94	$ 795,748	$ 1,008,658	$ 212,910	78.9%	$ 217,439	97.9%
7/1/96	$ 1,296,256	$ 1,470,331	$ 174,075	88.2%	$ 191,114	91.1%
7/1/98	$ 1,647,935	$ 1,549,166	($ 98,769)	106.4%	$ 219,398	(45.0%)
7/1/00	$1,698,282	$1,719,905	$21,623	98.7%	$273,426	7.9%

*Prepared by the prior actuary and unaudited by Buck Consultants.

SCHEDULE OF FUNDING PROGESS GASB 25 (Dollar amounts in thousands)		
Year Ended	Annual Required Contribution	Percentage Contribution
6/30/92	$ 18,771	100%
6/30/94	$ 21,428	100%
6/30/96	$ 26,468	100%
6/30/98	$ 202,550*	100%
6/30/00	$0	100%

*Includes proceeds from Pension Obligation Bonds.

For comparative purposes, we have provided below a summary of the current GASB 25 ratios and the underlying interest rate assumptions for all of the 1937 Act counties.

County	Valuation Date	Interest Rate	GASB 25 Ratio
Alameda	01/01/00	8.25%	109%
Contra Costa	01/01/98	8.50%	88%
Fresno	07/01/00	8.25%	99%
Imperial	07/01/97	8.00%	80%
Kern	01/01/98	8.25%	98%
Los Angeles	07/01/97	8.00%	101%
Marin	07/01/97	8.25%	83%
Mendocino	07/01/00	8.00%	82%
Merced	07/01/99	8.00%	101%
Orange	01/01/98	8.00%	104%
Sacramento	07/01/97	8.00%	101%
San Bernardino	07/01/99	8.00%	108%
San Diego	07/01/97	8.25%	108%
San Joaquin	01/01/00	8.25%	108%
San Mateo	07/01/97	8.25%	83%
Santa Barbara	01/01/00	8.00%	100%
Sonoma	01/01/00	8.25%	99%
Stanislaus	07/01/00	8.00%	102%
Tulare	07/01/98	8.25%	102%
Ventura	07/01/98	8.25%	115%
Average		8.15%	99%

SECTION VI - APPENDIX

SCHEDULE 1

SUMMARY OF ACTUARIAL ASSUMPTIONS

The Entry Age Normal Actuarial Cost Method was used in conjunction with the following actuarial assumptions. The UAAL is being funded over 10 years from the June 30, 2000 valuation date.

1.	Interest:	8.25% per annum, compounded biannually
2.	Interest Credited to Employee Accounts:	8.25% per annum, compounded biannually
3.	Inflation:	4.50% per annum.
4.	Salary Scale:	See Schedule 9.
5.	Asset Valuation:	Smoothed market value.
6.	Spouses and Dependents:	90% of male employees and 50% of female employees assumed married at retirement, with wives assumed three years younger than husbands.
7.	Rates of Termination of Employment:	See Schedule 6.
8.	Years of Life Expectancy After Retirement:	See Schedule 7.
9.	Years of Life Expectancy After Disability:	See Schedule 7.
10.	Life Expectancy After Retirement for Employee Contribution Rate Purposes	
	- General Members:	1994 Group Annuity Table for Males, set back two years.
	- Safety Members:	1994 Group Annuity Table for Males with no set back.
11.	Reciprocity Assumption:	50% of members who terminate with a vested benefit are assumed to enter a reciprocal system.
12.	Deferral Age for Vested Terminations:	63 for General members; 55 for Safety.
13.	Sex:	All Safety members are assumed to be male.

SCHEDULE 2

SUMMARY OF MAJOR PLAN PROVISIONS

1. ELIGIBILITY

First of month following date of employment.

2. DEFINITION OF SALARY

Highest 12 consecutive months of compensation earnable.

3. SERVICE RETIREMENT

- Normal retirement age - 60 and 55 for the General and Safety 2.5% benefit formulas respectively.

- Early retirement

  Age 50 and 10 years, or any age with 30 years for General, and any age with 20 years for Safety.

- Benefit

  1/40 times final average salary per year of service.

- Benefit Adjustments

  Reduced for retirement before 55 and 50 for the General and Safety 2.5% benefit formulas respectively.

  Increased for retirement after 55 and 50 for the General and Safety 2.5% benefit formulas respectively.

4. DISABILITY RETIREMENT

- Non-service connected

  2.25% of final average salary per year of service, with a maximum of 33-1/3% if projected service is used (age 60 for General, age 55 for Safety), or 90% of the accrued service retirement benefit without a benefit adjustment, or service retirement benefit (if eligible).

- Service-connected

  Greater of 50% of final average salary or service retirement benefit (if eligible).

5. DEATH BEFORE RETIREMENT

- Refund of contributions plus 1/12 of salary per year of service up to 6 years.
- If eligible for disability or service retirement

  - 60% of member's accrued allowance.
- If service-connected

  - 50% of salary.

6. DEATH AFTER RETIREMENT

- Service retirement or ordinary disability

  - 60% of member's allowance payable to an eligible spouse.
- Service disability

  - 100% of member's allowance payable to an eligible spouse.

7. VESTING

- After five years of service.
- Must leave contributions on deposit.

8. MEMBERS' CONTRIBUTIONS

- Based on entry age.

9. COST-OF-LIVING

- "Automatic" 3% COLA for all members.

SCHEDULE 3

AGE AND SERVICE DISTRIBUTION WITH ANNUAL AVERAGE SALARY
OF ACTIVE GENERAL MEMBERS
AS OF JUNE 30, 2000

MALES

CURRENT AGE	YEARS OF SERVICE							
	0-4	5-9	10-14	15-19	20-24	25-29	30 & Over	TOTAL
Below 19	5	0	0	0	0	0	0	5
	14,423	0	0	0	0	0	0	14,423
20-24	57	0	0	0	0	0	0	57
	24,142	0	0	0	0	0	0	24,142
25-29	204	23	1	0	0	0	0	228
	30,385	35,405	28,990	0	0	0	0	30,885
30-34	144	75	11	0	0	0	0	230
	35,384	39,635	31,645	0	0	0	0	36,591
35-39	121	85	57	11	0	0	0	274
	36,622	43,146	41,715	39,378	0	0	0	39,816
40-44	109	71	85	26	16	0	0	307
	39,806	43,393	45,198	44,882	39,625	0	0	42,549
45-49	96	85	70	54	63	24	0	392
	37,628	41,362	48,682	47,650	49,749	48,733	0	44,420
50-54	95	74	51	47	75	89	19	450
	41,221	44,583	46,349	49,509	51,749	52,108	58,846	47,873
55-59	39	30	34	29	33	52	44	261
	36,586	45,314	48,702	49,996	49,423	49,016	54,822	47,831
60-64	10	13	12	2	8	10	13	68
	48,880	58,841	45,549	46,189	61,970	50,750	55,754	53,246
65-69	1	2	5	0	1	0	0	9
	140,166	95,719	26,237	0	25,870	0	0	54,295
70 & Over	1	2	0	1	0	0	0	4
	78,757	28,528	0	78,757	0	0	0	53,643
TOTAL	882	460	326	170	196	175	76	2,285
	35,346	42,876	45,098	47,771	50,010	50,649	55,987	42,294

SCHEDULE 3

AGE AND SERVICE DISTRIBUTION WITH ANNUAL AVERAGE SALARY
OF ACTIVE GENERAL MEMBERS
AS OF JUNE 30, 2000

FEMALES

CURRENT AGE	YEARS OF SERVICE							
	0-4	5-9	10-14	15-19	20-24	25-29	30 & Over	TOTAL
Below 19	3	0	0	0	0	0	0	3
	7,795	0	0	0	0	0	0	7,795
20-24	161	1	0	0	0	0	0	162
	22,950	26,832	0	0	0	0	0	22,974
25-29	360	51	2	0	0	0	0	413
	27,292	32,175	35,061	0	0	0	0	27,933
30-34	292	138	40	0	0	0	0	470
	29,164	35,221	31,380	0	0	0	0	31,131
35-39	221	146	119	30	0	0	0	516
	28,602	34,328	38,480	33,487	0	0	0	32,784
40-44	207	129	124	83	46	0	0	589
	30,748	37,421	39,373	40,305	39,864	0	0	36,084
45-49	206	132	144	95	62	35	2	676
	31,495	33,211	35,454	38,069	40,247	41,768	47,942	34,981
50-54	150	124	127	89	49	64	23	626
	30,385	35,620	37,106	40,196	42,289	46,225	42,840	37,189
55-59	68	47	76	36	32	24	22	305
	31,283	35,126	37,181	38,858	39,305	39,101	43,535	36,580
60-64	17	28	30	20	14	12	5	126
	31,749	37,420	33,274	31,928	30,546	31,026	34,333	33,301
65-69	3	5	7	2	2	2	0	21
	22,064	37,383	29,105	32,669	37,011	66,770	0	34,750
70 & Over	0	1	1	0	1	0	0	3
	0	90,575	26,598	0	58,328	0	0	58,500
TOTAL	1,688	802	670	355	206	137	52	3,910
	28,747	35,093	36,804	38,441	39,898	42,807	42,512	33,572

SCHEDULE 3

AVERAGE ANNUAL BENEFIT AND MEMBERSHIP DISTRIBUTION OF RETIRED GENERAL MEMBERS AS OF JUNE 30, 2000

MALES

CURRENT AGE	YEARS OF RETIREMENT							
	0-4	5-9	10-14	15-19	20-24	25-29	30 & Over	TOTAL
Below 45	6	4	0	0	0	0	0	10
	7,805	6,976	0	0	0	0	0	7,473
45-49	1	1	2	0	0	0	0	4
	18,520	18,140	12,460	0	0	0	0	15,395
50-54	71	1	3	1	0	0	0	76
	10,595	11,652	10,696	9,213	0	0	0	10,595
55-59	70	35	1	2	3	1	0	112
	17,600	12,819	12,309	8,490	8,617	9,455	0	15,583
60-64	68	58	27	5	0	1	0	159
	27,882	21,537	8,418	18,320	0	4,620	0	21,815
65-69	49	79	59	39	2	1	0	229
	19,521	25,747	14,952	8,675	8,178	1,824	0	18,468
70-74	6	34	74	38	17	1	3	173
	6,914	22,892	22,573	12,522	9,749	4,562	4,635	18,210
75-79	1	5	36	72	30	13	1	158
	15,914	25,446	18,873	19,529	11,166	4,434	2,658	16,607
80-84	0	1	8	35	49	9	0	102
	0	33,085	16,932	14,845	15,878	6,417	0	14,940
85 & Over	0	0	0	7	21	14	7	49
	0	0	0	14,224	13,038	6,610	5,339	10,271
TOTAL	272	218	210	199	122	40	11	1,072
	18,233	21,689	17,448	14,860	13,072	5,710	4,903	16,965

SCHEDULE 3

AVERAGE ANNUAL BENEFIT AND MEMBERSHIP DISTRIBUTION OF RETIRED GENERAL MEMBERS AS OF JUNE 30, 2000

FEMALES

CURRENT AGE	YEARS OF RETIREMENT							
	0-4	5-9	10-14	15-19	20-24	25-29	30 & Over	TOTAL
Below 45	12	1	1	0	0	0	0	14
	10,294	5,073	3,697	0	0	0	0	9,450
45-49	8	1	3	2	0	0	0	14
	12,257	12,042	19,587	19,421	0	0	0	14,836
50-54	130	7	3	0	2	0	0	142
	10,203	13,314	9,492	0	9,504	0	0	10,331
55-59	136	65	5	3	1	1	0	211
	12,733	10,542	11,135	6,649	5,946	9,698	0	11,887
60-64	108	61	45	5	5	3	0	227
	14,640	15,627	7,843	6,263	11,395	4,216	0	13,164
65-69	63	118	60	41	10	3	1	296
	14,971	16,214	9,162	7,417	10,340	6,408	5,323	12,967
70-74	9	81	90	54	36	4	2	276
	12,142	13,521	13,073	10,210	7,018	2,834	3,901	11,609
75-79	0	19	71	106	62	17	3	278
	0	12,142	13,729	12,560	7,880	4,526	5,916	11,223
80-84	0	2	14	59	90	32	7	204
	0	12,584	12,733	12,966	9,076	4,182	6,524	9,631
85 & Over	0	0	1	9	60	65	32	167
	0	0	7,250	12,115	8,288	5,233	4,629	6,598
TOTAL	466	355	293	279	266	125	45	1,829
	12,689	14,121	11,557	11,294	8,424	4,831	4,993	11,226

SCHEDULE 3

AVERAGE ANNUAL BENEFIT AND MEMBERSHIP DISTRIBUTION OF RETIRED SAFETY MEMBERS AS OF JUNE 30, 2000

TOTAL

CURRENT AGE	YEARS OF RETIREMENT							
	0-4	5-9	10-14	15-19	20-24	25-29	30 & Over	TOTAL
Below 45	6	5	1	1	0	0	0	13
	23,185	13,818	22,837	20,799	0	0	0	19,372
45-49	6	5	2	1	0	0	0	14
	19,465	18,859	22,912	22,690	0	0	0	19,971
50-54	18	14	14	1	1	0	0	48
	26,008	18,837	20,109	16,125	13,944	0	0	21,739
55-59	36	19	11	2	1	0	0	69
	36,345	18,328	17,970	15,638	5,617	0	0	27,409
60-64	7	18	7	6	1	1	0	40
	40,616	28,903	22,359	12,843	24,803	11,813	0	26,869
65-69	4	4	21	12	4	1	0	46
	10,489	42,874	26,724	15,874	14,248	11,616	0	22,473
70-74	2	0	6	15	14	3	0	40
	9,404	0	43,050	32,227	14,227	9,481	0	24,703
75-79	0	0	1	3	22	9	0	35
	0	0	75,936	27,801	21,664	11,236	0	21,059
80-84	0	0	0	1	4	6	3	14
	0	0	0	11,412	15,185	14,091	6,019	12,483
85 & Over	0	0	0	0	1	7	3	11
	0	0	0	0	6,369	10,773	10,667	10,344
TOTAL	79	65	63	42	48	27	6	330
	30,095	22,571	25,394	22,301	17,589	11,591	8,343	22,995

SCHEDULE 4

SUMMARY OF ANNUAL RETIREMENT ALLOWANCES
As of June 30, 2000

GENERAL MEMBERS

	Number	Annual Allowance
Service		
Males	938	$ 17,006,545
Females	1,461	17,013,350
Total	2,399	$ 34,019,895
Disability		
Males	64	$ 744,748
Females	76	728,625
Total	140	$ 1,473,373
Beneficiaries		
Males	70	$ 434,575
Females	292	2,758,264
Total	362	$ 3,192,839
Total	2,901	$ 38,686,107

SAFETY MEMBERS

	Number	Annual Allowance
Service		
Males	201	$ 5,348,829
Females	19	270,617
Total	220	$ 5,619,446
Disability		
Males	48	$ 1,032,660
Females	14	264,032
Total	62	$ 1,296,692
Beneficiaries		
Males	1	$ 6,446
Females	47	659,258
Total	48	$ 665,704
Total	330	$ 7,581,842

SCHEDULE 5

GENERAL MEMBERS' CONTRIBUTION RATES

(expressed as a percentage of monthly compensation)

Current Rates - Before Transfer

Entry Age	BASIC		COL		Entry Age	BASIC		COL	
	First $350.00	Over $350.00	First $350.00	Over $350.00		First $350.00	Over $350.00	First $350.00	Over $350.00
16	1.85%	2.77%	1.10%	1.65%	38	2.37%	3.55%	1.41%	2.11%
17	1.85	2.78	1.10	1.65	39	2.40	3.60	1.43	2.14
18	1.86	2.79	1.11	1.66	40	2.44	3.66	1.45	2.18
19	1.87	2.80	1.11	1.66	41	2.47	3.71	1.47	2.21
20	1.88	2.82	1.12	1.68	42	2.51	3.77	1.49	2.24
21	1.89	2.84	1.13	1.69	43	2.55	3.83	1.52	2.28
22	1.91	2.86	1.13	1.70	44	2.59	3.88	1.54	2.31
23	1.92	2.88	1.14	1.71	45	2.63	3.94	1.56	2.34
24	1.94	2.91	1.15	1.73	46	2.67	4.00	1.59	2.38
25	1.96	2.94	1.17	1.75	47	2.71	4.06	1.61	2.41
26	1.99	2.98	1.18	1.77	48	2.75	4.12	1.63	2.45
27	2.01	3.01	1.19	1.79	49	2.79	4.18	1.66	2.49
28	2.03	3.05	1.21	1.81	50	2.83	4.24	1.68	2.52
29	2.06	3.09	1.23	1.84	51	2.87	4.31	1.71	2.56
30	2.09	3.14	1.25	1.87	52	2.91	4.37	1.73	2.60
31	2.12	3.18	1.26	1.89	53	2.95	4.43	1.75	2.63
32	2.15	3.23	1.28	1.92	54	2.99	4.49	1.78	2.67
33	2.19	3.28	1.30	1.95	55	3.04	4.56	1.81	2.71
34	2.22	3.33	1.32	1.98	56	3.08	4.62	1.83	2.75
35	2.26	3.39	1.35	2.02	57	3.13	4.69	1.86	2.79
36	2.29	3.44	1.37	2.05	58	3.17	4.76	1.89	2.83
37	2.33	3.49	1.38	2.07	59 / +	3.21	4.82	1.91	2.87

INTEREST:	8.25%
INFLATION:	4.75%
COLA:	3.00%
MORTALITY:	83 GA (Male, -4)

SCHEDULE 5

SAFETY MEMBERS' CONTRIBUTION RATES

(expressed as a percentage of monthly compensation)

Recalculated (Study 1) - Before Transfer

Entry Age	BASIC		COL		Entry Age	BASIC		COL	
	First $350.00	Over $350.00	First $350.00	Over $350.00		First $350.00	Over $350.00	First $350.00	Over $350.00
18	2.32%	3.48%	1.38%	2.07%	34	2.81%	4.21%	1.67%	2.50%
19	2.34	3.51	1.39	2.09	35	2.85	4.27	1.69	2.54
20	2.36	3.54	1.40	2.10	36	2.89	4.33	1.71	2.57
21	2.39	3.58	1.42	2.13	37	2.93	4.40	1.75	2.62
22	2.41	3.62	1.43	2.15	38	2.97	4.46	1.77	2.65
23	2.44	3.66	1.45	2.18	39	3.02	4.53	1.79	2.69
24	2.47	3.70	1.47	2.20	40	3.07	4.60	1.82	2.73
25	2.49	3.74	1.48	2.22	41	3.11	4.66	1.85	2.77
26	2.53	3.79	1.50	2.25	42	3.15	4.73	1.87	2.81
27	2.56	3.84	1.52	2.28	43	3.20	4.80	1.90	2.85
28	2.59	3.88	1.54	2.31	44	3.25	4.87	1.93	2.90
29	2.62	3.93	1.56	2.34	45	3.29	4.94	1.96	2.94
30	2.66	3.99	1.58	2.37	46	3.34	5.01	1.99	2.98
31	2.69	4.04	1.60	2.40	47	3.39	5.08	2.01	3.02
32	2.73	4.10	1.63	2.44	48	3.43	5.15	2.04	3.06
33	2.77	4.15	1.65	2.47	49 / +	3.48	5.22	2.07	3.10

INTEREST:	8.25%
INFLATION:	4.75%
COLA:	3.00%
MORTALITY:	83 GA (Male, -1)

SCHEDULE 5

GENERAL MEMBERS' CONTRIBUTION RATES

(expressed as a percentage of monthly compensation)

Recalculated (Study 1) - Before Transfer

Entry Age	BASIC		COL		Entry Age	BASIC		COL	
	First $350.00	Over $350.00	First $350.00	Over $350.00		First $350.00	Over $350.00	First $350.00	Over $350.00
16	1.85%	2.77%	1.10%	1.65%	38	2.37%	3.55%	1.41%	2.11%
17	1.85	2.78	1.10	1.65	39	2.40	3.60	1.43	2.14
18	1.86	2.79	1.11	1.66	40	2.44	3.66	1.45	2.18
19	1.87	2.80	1.11	1.66	41	2.47	3.71	1.47	2.21
20	1.88	2.82	1.12	1.68	42	2.51	3.77	1.49	2.24
21	1.89	2.84	1.13	1.69	43	2.55	3.83	1.52	2.28
22	1.91	2.86	1.13	1.70	44	2.59	3.88	1.54	2.31
23	1.92	2.88	1.14	1.71	45	2.63	3.94	1.56	2.34
24	1.94	2.91	1.15	1.73	46	2.67	4.00	1.59	2.38
25	1.96	2.94	1.17	1.75	47	2.71	4.06	1.61	2.41
26	1.99	2.98	1.18	1.77	48	2.75	4.12	1.63	2.45
27	2.01	3.01	1.19	1.79	49	2.79	4.18	1.66	2.49
28	2.03	3.05	1.21	1.81	50	2.83	4.24	1.68	2.52
29	2.06	3.09	1.23	1.84	51	2.87	4.31	1.71	2.56
30	2.09	3.14	1.25	1.87	52	2.91	4.37	1.73	2.60
31	2.12	3.18	1.26	1.89	53	2.95	4.43	1.75	2.63
32	2.15	3.23	1.28	1.92	54	2.99	4.49	1.78	2.67
33	2.19	3.28	1.30	1.95	55	3.04	4.56	1.81	2.71
34	2.22	3.33	1.32	1.98	56	3.08	4.62	1.83	2.75
35	2.26	3.39	1.35	2.02	57	3.13	4.69	1.86	2.79
36	2.29	3.44	1.37	2.05	58	3.17	4.76	1.89	2.83
37	2.33	3.49	1.38	2.07	59 / +	3.21	4.82	1.91	2.87

INTEREST:	8.25%
INFLATION:	4.75%
COLA:	3.00%
MORTALITY:	83 GA (Male, -4)

SCHEDULE 5

SAFETY MEMBERS' CONTRIBUTION RATES

(expressed as a percentage of monthly compensation)

Rates Based on 31664 Formula and New Assumptions

Before Transfer

Entry Age	BASIC		COL		Entry Age	BASIC		COL	
	First $350.00	Over $350.00	First $350.00	Over $350.00		First $350.00	Over $350.00	First $350.00	Over $350.00
18	2.15%	3.23%	1.34%	2.01%	34	2.70%	4.05%	1.68%	2.52%
19	2.17	3.26	1.35	2.03	35	2.75	4.12	1.71	2.56
20	2.20	3.30	1.37	2.05	36	2.79	4.19	1.74	2.61
21	2.23	3.34	1.39	2.08	37	2.84	4.26	1.77	2.65
22	2.25	3.38	1.40	2.10	38	2.89	4.33	1.80	2.70
23	2.29	3.43	1.43	2.14	39	2.93	4.40	1.83	2.74
24	2.32	3.48	1.45	2.17	40	2.99	4.48	1.86	2.79
25	2.35	3.52	1.46	2.19	41	3.03	4.55	1.89	2.83
26	2.39	3.58	1.49	2.23	42	3.09	4.63	1.92	2.88
27	2.42	3.63	1.51	2.26	43	3.14	4.71	1.95	2.93
28	2.45	3.68	1.53	2.29	44	3.19	4.78	1.99	2.98
29	2.49	3.74	1.55	2.33	45	3.24	4.86	2.02	3.03
30	2.53	3.80	1.58	2.37	46	3.29	4.94	2.05	3.08
31	2.57	3.86	1.60	2.40	47	3.35	5.02	2.08	3.12
32	2.61	3.92	1.63	2.44	48	3.41	5.11	2.12	3.18
33	2.65	3.98	1.65	2.48	49 / +	3.46	5.19	2.15	3.23

INTEREST:	8.42%
INFLATION:	4.50%
COLA:	3.00%
MORTALITY:	94 GA (Male)

SCHEDULE 5

GENERAL MEMBERS' CONTRIBUTION RATES

(expressed as a percentage of monthly compensation)

Rates Based on 2.5% @ 55 Formula and New Assumptions

Before Transfer

Entry Age	BASIC		COL		Entry Age	BASIC		COL	
	First $350.00	Over $350.00	First $350.00	Over $350.00		First $350.00	Over $350.00	First $350.00	Over $350.00
16	2.42%	3.63%	1.29%	1.94%	36	3.10%	4.65%	1.65%	2.48%
17	2.43	3.65	1.30	1.95	37	3.15	4.73	1.68	2.52
18	2.44	3.66	1.30	1.95	38	3.21	4.82	1.71	2.57
19	2.45	3.68	1.31	1.96	39	3.27	4.90	1.74	2.61
20	2.47	3.71	1.32	1.98	40	3.32	4.98	1.77	2.66
21	2.49	3.73	1.33	1.99	41	3.38	5.07	1.80	2.70
22	2.51	3.77	1.34	2.01	42	3.44	5.16	1.83	2.75
23	2.54	3.81	1.35	2.03	43	3.50	5.25	1.87	2.80
24	2.57	3.85	1.37	2.05	44	3.56	5.34	1.90	2.85
25	2.60	3.90	1.39	2.08	45	3.62	5.43	1.93	2.90
26	2.63	3.95	1.41	2.11	46	3.68	5.52	1.96	2.94
27	2.67	4.00	1.42	2.13	47	3.74	5.61	1.99	2.99
28	2.71	4.06	1.45	2.17	48	3.80	5.70	2.03	3.04
29	2.75	4.13	1.47	2.20	49	3.87	5.80	2.06	3.09
30	2.79	4.19	1.49	2.23	50	3.93	5.89	2.09	3.14
31	2.84	4.26	1.51	2.27	51	3.99	5.99	2.13	3.20
32	2.89	4.33	1.54	2.31	52	4.06	6.09	2.17	3.25
33	2.94	4.41	1.57	2.35	53	4.13	6.19	2.20	3.30
34	2.99	4.49	1.59	2.39	54 / +	4.19	6.29	2.24	3.36
35	3.05	4.57	1.63	2.44					

INTEREST:	8.42%
INFLATION:	4.50%
COLA:	3.00%
MORTALITY:	94 GA (Male, -2)

SCHEDULE 5

SAFETY MEMBERS' CONTRIBUTION RATES

(expressed as a percentage of monthly compensation)

Rates Based on 2.5% @ 50 and New Assumptions

Before Transfer

Entry Age	BASIC		COL		Entry Age	BASIC		COL	
	First $350.00	Over $350.00	First $350.00	Over $350.00		First $350.00	Over $350.00	First $350.00	Over $350.00
18	2.69%	4.03%	1.43%	2.15%	34	3.37%	5.06%	1.80%	2.70%
19	2.72	4.08	1.45	2.18	35	3.43	5.15	1.83	2.75
20	2.75	4.12	1.47	2.20	36	3.49	5.23	1.86	2.79
21	2.78	4.17	1.48	2.22	37	3.55	5.32	1.89	2.84
22	2.82	4.23	1.51	2.26	38	3.61	5.41	1.93	2.89
23	2.85	4.28	1.52	2.28	39	3.67	5.51	1.96	2.94
24	2.89	4.34	1.54	2.31	40	3.73	5.60	1.99	2.99
25	2.94	4.41	1.57	2.35	41	3.79	5.69	2.03	3.04
26	2.98	4.47	1.59	2.38	42	3.86	5.79	2.06	3.09
27	3.03	4.54	1.61	2.42	43	3.92	5.88	2.09	3.14
28	3.07	4.61	1.64	2.46	44	3.99	5.98	2.13	3.19
29	3.12	4.68	1.67	2.50	45	4.05	6.08	2.16	3.24
30	3.17	4.75	1.69	2.53	46	4.12	6.18	2.20	3.30
31	3.21	4.82	1.71	2.57	47	4.19	6.28	2.23	3.35
32	3.27	4.90	1.74	2.61	48	4.25	6.38	2.27	3.40
33	3.32	4.98	1.77	2.66	49 / +	4.32	6.48	2.31	3.46

INTEREST:	8.42%
INFLATION:	4.50%
COLA:	3.00%
MORTALITY:	94 GA (Male)

SCHEDULE 6

PROBABILITIES OF SEPARATION FROM ACTIVE SERVICE

The following pages indicate the probability of separation from active service for each of eight separate sources of termination:

- *Withdrawal:* member terminates and elects refund of member contributions.
- *Vested termination:* member terminates and contributions are left on deposit.
- *Ordinary death:* member dies prior to eligibility for retirement; death not employment-related.
- *Ordinary disability:* member receives disability retirement; disability not employment-related.
- *Service retirement:* member retires after satisfaction of requirements of age and/or service for reasons other than disability.
- *Duty disability:* member receives disability retirement; disability is employment-related.
- *Duty death:* member dies prior to retirement; death is employment-related.
- *Death while eligible:* member dies prior to retirement but after satisfaction of age and/or service requirements for service retirement or ordinary disability.

The probabilities shown for each cause of termination represent the probability that a given member will terminate at a particular age for the indicated reason. For example, if the probability of withdrawal at age 25 is .1550, then we are assuming that 15.50% of the active members at age 25 will terminate without vested rights during the next year.

SCHEDULE 6
PROBABILITIES OF SEPARATION FROM ACTIVE SERVICE
(Current Assumptions)
GENERAL MEMBERS -- MALES

Age	Withdrawal	Ordinary Death	Ordinary Disability	Service	Death While Eligible	Duty Death	Duty Disability	Terminated Vested
20	0.15500	0.00020	0.00000	0.00000	0.00000	0.00010	0.00005	0.00045
21	0.15500	0.00020	0.00000	0.00000	0.00000	0.00010	0.00005	0.00045
22	0.15500	0.00020	0.00000	0.00000	0.00000	0.00010	0.00005	0.00090
23	0.15000	0.00020	0.00000	0.00000	0.00000	0.00010	0.00005	0.00135
24	0.15000	0.00020	0.00000	0.00000	0.00000	0.00010	0.00005	0.00180
25	0.15000	0.00030	0.00007	0.00000	0.00013	0.00010	0.00010	0.00225
26	0.15000	0.00030	0.00007	0.00000	0.00013	0.00010	0.00010	0.00270
27	0.14500	0.00030	0.00007	0.00000	0.00013	0.00010	0.00010	0.00360
28	0.14500	0.00030	0.00007	0.00000	0.00013	0.00010	0.00010	0.00450
29	0.14000	0.00030	0.00007	0.00000	0.00013	0.00010	0.00010	0.00540
30	0.13000	0.00040	0.00007	0.00000	0.00013	0.00010	0.00010	0.00630
31	0.11500	0.00040	0.00007	0.00000	0.00013	0.00010	0.00010	0.00720
32	0.10000	0.00040	0.00007	0.00000	0.00013	0.00010	0.00010	0.00810
33	0.08000	0.00040	0.00014	0.00000	0.00026	0.00010	0.00010	0.00900
34	0.07000	0.00040	0.00014	0.00000	0.00026	0.00010	0.00010	0.01080
35	0.06000	0.00050	0.00014	0.00000	0.00026	0.00010	0.00015	0.01350
36	0.05500	0.00050	0.00014	0.00000	0.00026	0.00010	0.00015	0.01575
37	0.05000	0.00050	0.00021	0.00000	0.00026	0.00010	0.00015	0.01710
38	0.04600	0.00050	0.00021	0.00000	0.00026	0.00010	0.00015	0.01935
39	0.04200	0.00060	0.00028	0.00000	0.00026	0.00010	0.00015	0.02025
40	0.03900	0.00060	0.00035	0.00000	0.00039	0.00010	0.00020	0.02070
41	0.03600	0.00060	0.00042	0.00000	0.00039	0.00010	0.00020	0.02070
42	0.03300	0.00070	0.00049	0.00000	0.00039	0.00010	0.00020	0.02070
43	0.03000	0.00070	0.00056	0.00000	0.00052	0.00010	0.00025	0.01980
44	0.02700	0.00080	0.00063	0.00000	0.00052	0.00010	0.00025	0.01890
45	0.02300	0.00080	0.00077	0.00000	0.00065	0.00010	0.00030	0.01800
46	0.01900	0.00090	0.00091	0.00000	0.00065	0.00010	0.00035	0.01710
47	0.01500	0.00100	0.00105	0.00000	0.00078	0.00010	0.00040	0.01620
48	0.01200	0.00110	0.00119	0.00000	0.00078	0.00010	0.00045	0.01440
49	0.01000	0.00120	0.00133	0.00000	0.00091	0.00010	0.00050	0.01260
50	0.01000	0.00130	0.00147	0.03500	0.00104	0.00010	0.00055	0.01080
51	0.01000	0.00140	0.00161	0.02700	0.00117	0.00010	0.00065	0.00900
52	0.01000	0.00150	0.00182	0.02000	0.00130	0.00020	0.00075	0.00720
53	0.01000	0.00160	0.00203	0.02000	0.00143	0.00020	0.00085	0.00630
54	0.01000	0.00170	0.00224	0.04000	0.00156	0.00020	0.00095	0.00585
55	0.01000	0.00180	0.00245	0.05500	0.00169	0.00020	0.00105	0.00585
56	0.01000	0.00190	0.00266	0.06300	0.00182	0.00020	0.00115	0.00585
57	0.01000	0.00200	0.00280	0.07600	0.00195	0.00020	0.00125	0.00585
58	0.01000	0.00210	0.00294	0.09000	0.00208	0.00020	0.00135	0.00585
59	0.01000	0.00220	0.00301	0.13000	0.00221	0.00030	0.00145	0.00585
60	0.01000	0.00240	0.00308	0.15000	0.00234	0.00030	0.00155	0.00540
61	0.01000	0.00260	0.00315	0.18000	0.00247	0.00030	0.00160	0.00450
62	0.01000	0.00280	0.00322	0.40000	0.00260	0.00030	0.00165	0.00360
63	0.01000	0.00300	0.00329	0.24000	0.00286	0.00030	0.00170	0.00270
64	0.01000	0.00320	0.00336	0.25000	0.00312	0.00040	0.00175	0.00180
65	0.00000	0.00340	0.00000	0.35000	0.00351	0.00040	0.00000	0.00000
66	0.00000	0.00360	0.00000	0.35000	0.00390	0.00040	0.00000	0.00000
67	0.00000	0.00380	0.00000	0.35000	0.00442	0.00040	0.00000	0.00000
68	0.00000	0.00400	0.00000	0.45000	0.00507	0.00040	0.00000	0.00000
69	0.00000	0.00420	0.00000	0.60000	0.00585	0.00040	0.00000	0.00000
70	0.00000	0.00000	0.00000	1.00000	0.00000	0.00000	0.00000	0.00000

SCHEDULE 6
PROBABILITIES OF SEPARATION FROM ACTIVE SERVICE
(Current Assumptions)
GENERAL MEMBERS – FEMALES

Age	Withdrawal	Ordinary Death	Ordinary Disability	Service	Death While Eligible	Duty Death	Duty Disability	Terminated Vested
20	0.16500	0.00010	0.00000	0.00000	0.00000	0.00000	0.00010	0.00270
21	0.16500	0.00010	0.00000	0.00000	0.00000	0.00000	0.00010	0.00270
22	0.16000	0.00010	0.00000	0.00000	0.00000	0.00000	0.00010	0.00270
23	0.15500	0.00010	0.00000	0.00000	0.00000	0.00000	0.00010	0.00270
24	0.15500	0.00010	0.00000	0.00000	0.00000	0.00000	0.00010	0.00450
25	0.15500	0.00020	0.00010	0.00000	0.00008	0.00000	0.00010	0.00450
26	0.15500	0.00020	0.00010	0.00000	0.00008	0.00000	0.00010	0.00450
27	0.15000	0.00020	0.00010	0.00000	0.00008	0.00000	0.00010	0.00450
28	0.15000	0.00020	0.00010	0.00000	0.00008	0.00000	0.00010	0.00450
29	0.14500	0.00030	0.00010	0.00000	0.00008	0.00000	0.00020	0.00450
30	0.13500	0.00030	0.00010	0.00000	0.00008	0.00000	0.00020	0.00450
31	0.12000	0.00030	0.00010	0.00000	0.00008	0.00000	0.00020	0.00450
32	0.10000	0.00030	0.00010	0.00000	0.00008	0.00000	0.00020	0.00450
33	0.08500	0.00040	0.00010	0.00000	0.00008	0.00000	0.00020	0.00450
34	0.07000	0.00040	0.00010	0.00000	0.00008	0.00000	0.00020	0.00900
35	0.06500	0.00040	0.00020	0.00000	0.00008	0.00000	0.00020	0.01620
36	0.06000	0.00050	0.00020	0.00000	0.00008	0.00000	0.00020	0.01980
37	0.05500	0.00050	0.00020	0.00000	0.00008	0.00000	0.00020	0.01980
38	0.05000	0.00050	0.00030	0.00000	0.00008	0.00000	0.00020	0.01800
39	0.05000	0.00050	0.00030	0.00000	0.00008	0.00000	0.00030	0.01710
40	0.04500	0.00060	0.00030	0.00000	0.00008	0.00000	0.00030	0.01665
41	0.04300	0.00060	0.00040	0.00000	0.00008	0.00000	0.00030	0.01620
42	0.04200	0.00060	0.00040	0.00000	0.00008	0.00000	0.00030	0.01575
43	0.03800	0.00070	0.00050	0.00000	0.00008	0.00000	0.00030	0.01575
44	0.03500	0.00070	0.00050	0.00000	0.00008	0.00000	0.00030	0.01530
45	0.03200	0.00070	0.00060	0.00000	0.00015	0.00000	0.00040	0.01530
46	0.03000	0.00080	0.00070	0.00000	0.00015	0.00000	0.00040	0.01485
47	0.02900	0.00080	0.00080	0.00000	0.00015	0.00000	0.00050	0.01440
48	0.02800	0.00090	0.00090	0.00000	0.00015	0.00000	0.00050	0.01395
49	0.02700	0.00090	0.00100	0.00000	0.00022	0.00000	0.00050	0.01305
50	0.02600	0.00100	0.00110	0.04000	0.00022	0.00000	0.00060	0.01170
51	0.02500	0.00100	0.00120	0.03000	0.00022	0.00000	0.00060	0.00990
52	0.02400	0.00110	0.00130	0.03000	0.00030	0.00000	0.00070	0.00810
53	0.02300	0.00110	0.00140	0.03000	0.00030	0.00000	0.00080	0.00630
54	0.02200	0.00120	0.00150	0.03000	0.00030	0.00000	0.00090	0.00450
55	0.02100	0.00120	0.00160	0.08000	0.00030	0.00000	0.00100	0.00450
56	0.01900	0.00130	0.00170	0.03000	0.00038	0.00000	0.00110	0.00720
57	0.01700	0.00140	0.00180	0.08000	0.00038	0.00000	0.00120	0.00630
58	0.01500	0.00150	0.00190	0.10000	0.00038	0.00000	0.00130	0.00540
59	0.01400	0.00160	0.00210	0.12000	0.00045	0.00000	0.00140	0.00450
60	0.01300	0.00180	0.00230	0.14000	0.00045	0.00000	0.00150	0.00450
61	0.01300	0.00190	0.00250	0.10000	0.00045	0.00000	0.00170	0.00450
62	0.01300	0.00200	0.00270	0.30000	0.00052	0.00000	0.00200	0.00450
63	0.01300	0.00210	0.00290	0.12500	0.00052	0.00000	0.00220	0.00450
64	0.01300	0.00220	0.00310	0.12500	0.00052	0.00000	0.00250	0.00450
65	0.00000	0.00240	0.00000	0.45000	0.00060	0.00000	0.00000	0.00000
66	0.00000	0.00250	0.00000	0.20000	0.00060	0.00000	0.00000	0.00000
67	0.00000	0.00260	0.00000	0.30000	0.00060	0.00000	0.00000	0.00000
68	0.00000	0.00270	0.00000	0.30000	0.00068	0.00000	0.00000	0.00000
69	0.00000	0.00280	0.00000	0.30000	0.00068	0.00000	0.00000	0.00000
70	0.00000	0.00000	0.00000	1.00000	0.00000	0.00000	0.00000	0.00000

SCHEDULE 6
PROBABILITIES OF SEPARATION FROM ACTIVE SERVICE
(Current Assumptions)
SAFETY MEMBERS

Age	Withdrawal	Ordinary Death	Ordinary Disability	Service	Death While Eligible	Duty Death	Duty Disability	Terminated Vested
20	0.13000	0.00015	0.00000	0.00000	0.00000	0.00015	0.00060	0.00100
21	0.12000	0.00015	0.00000	0.00000	0.00000	0.00015	0.00060	0.00110
22	0.11000	0.00015	0.00000	0.00000	0.00000	0.00015	0.00060	0.00120
23	0.10000	0.00015	0.00000	0.00000	0.00000	0.00015	0.00070	0.00130
24	0.09500	0.00015	0.00000	0.00000	0.00000	0.00015	0.00070	0.00140
25	0.09000	0.00022	0.00020	0.00000	0.00008	0.00022	0.00080	0.00200
26	0.08200	0.00022	0.00020	0.00000	0.00008	0.00022	0.00090	0.00300
27	0.07400	0.00022	0.00030	0.00000	0.00015	0.00022	0.00100	0.00500
28	0.07100	0.00022	0.00030	0.00000	0.00015	0.00022	0.00110	0.01000
29	0.06800	0.00022	0.00030	0.00000	0.00015	0.00022	0.00120	0.01700
30	0.06400	0.00030	0.00030	0.00000	0.00015	0.00030	0.00130	0.02500
31	0.06000	0.00030	0.00040	0.00000	0.00015	0.00030	0.00140	0.03400
32	0.05600	0.00030	0.00040	0.00000	0.00015	0.00030	0.00160	0.03000
33	0.05100	0.00030	0.00040	0.00000	0.00015	0.00030	0.00180	0.02700
34	0.04600	0.00030	0.00050	0.00000	0.00015	0.00030	0.00210	0.02400
35	0.04100	0.00038	0.00060	0.00000	0.00015	0.00038	0.00230	0.02200
36	0.03600	0.00038	0.00060	0.00000	0.00015	0.00038	0.00250	0.02000
37	0.03100	0.00038	0.00070	0.00000	0.00015	0.00038	0.00280	0.01800
38	0.02800	0.00038	0.00080	0.00000	0.00015	0.00038	0.00310	0.01600
39	0.02500	0.00038	0.00090	0.00000	0.00015	0.00038	0.00350	0.01400
40	0.02200	0.00045	0.00100	0.00000	0.00022	0.00045	0.00390	0.01200
41	0.01900	0.00045	0.00100	0.00000	0.00022	0.00045	0.00430	0.01000
42	0.01500	0.00045	0.00110	0.00000	0.00022	0.00045	0.00470	0.00800
43	0.01200	0.00052	0.00120	0.00000	0.00022	0.00052	0.00520	0.00600
44	0.01000	0.00052	0.00120	0.00000	0.00022	0.00052	0.00580	0.00400
45	0.00900	0.00060	0.00130	0.02000	0.00030	0.00060	0.00640	0.00300
46	0.00800	0.00060	0.00140	0.02000	0.00030	0.00060	0.00710	0.00200
47	0.00700	0.00068	0.00140	0.02000	0.00038	0.00068	0.00790	0.00100
48	0.00600	0.00068	0.00150	0.02000	0.00045	0.00068	0.00880	0.00080
49	0.00500	0.00075	0.00160	0.02500	0.00052	0.00075	0.00970	0.00050
50	0.00500	0.00075	0.00160	0.03000	0.00060	0.00075	0.01060	0.00000
51	0.00400	0.00082	0.00170	0.03000	0.00068	0.00082	0.01150	0.00000
52	0.00400	0.00082	0.00180	0.05000	0.00075	0.00090	0.01250	0.00000
53	0.00300	0.00090	0.00190	0.07000	0.00082	0.00097	0.01350	0.00000
54	0.00000	0.00090	0.00200	0.09000	0.00090	0.00097	0.01450	0.00000
55	0.00000	0.00097	0.00200	0.15000	0.00097	0.00105	0.01550	0.00000
56	0.00000	0.00097	0.00210	0.10000	0.00105	0.00112	0.01650	0.00000
57	0.00000	0.00105	0.00220	0.10000	0.00112	0.00120	0.01750	0.00000
58	0.00000	0.00105	0.00220	0.25000	0.00120	0.00127	0.01850	0.00000
59	0.00000	0.00112	0.00230	0.30000	0.00127	0.00135	0.01950	0.00000
60	0.00000	0.00000	0.00000	1.00000	0.00000	0.00000	0.00000	0.00000

SCHEDULE 6
PROBABILITIES OF SEPARATION FROM ACTIVE SERVICE
(Recommended Assumptions)
GENERAL MEMBERS -- MALES

Age	Withdrawal	Ordinary Death	Ordinary Disability	Service	Death While Eligible	Duty Death	Duty Disability	Terminated Vested
20	0.15500	0.00020	0.00000	0.00000	0.00000	0.00010	0.00005	0.00058
21	0.15000	0.00020	0.00000	0.00000	0.00000	0.00010	0.00005	0.00058
22	0.14500	0.00020	0.00000	0.00000	0.00000	0.00010	0.00005	0.00117
23	0.13800	0.00020	0.00000	0.00000	0.00000	0.00010	0.00005	0.00175
24	0.13100	0.00020	0.00000	0.00000	0.00000	0.00010	0.00005	0.00234
25	0.12400	0.00030	0.00005	0.00000	0.00013	0.00010	0.00010	0.00292
26	0.11700	0.00030	0.00005	0.00000	0.00013	0.00010	0.00010	0.00351
27	0.11000	0.00030	0.00005	0.00000	0.00013	0.00010	0.00010	0.00468
28	0.10300	0.00030	0.00005	0.00000	0.00013	0.00010	0.00010	0.00585
29	0.09600	0.00030	0.00005	0.00000	0.00013	0.00010	0.00010	0.00702
30	0.09000	0.00040	0.00005	0.00000	0.00013	0.00010	0.00010	0.00819
31	0.08300	0.00040	0.00005	0.00000	0.00013	0.00010	0.00010	0.00936
32	0.07600	0.00040	0.00005	0.00000	0.00013	0.00010	0.00010	0.01053
33	0.07000	0.00040	0.00010	0.00000	0.00026	0.00010	0.00010	0.01170
34	0.06300	0.00040	0.00010	0.00000	0.00026	0.00010	0.00010	0.01404
35	0.05700	0.00050	0.00010	0.00000	0.00026	0.00010	0.00015	0.01755
36	0.05200	0.00050	0.00010	0.00000	0.00026	0.00010	0.00015	0.02048
37	0.04800	0.00050	0.00016	0.00000	0.00026	0.00010	0.00015	0.02223
38	0.04500	0.00050	0.00016	0.00000	0.00026	0.00010	0.00015	0.02515
39	0.04200	0.00060	0.00021	0.00000	0.00026	0.00010	0.00015	0.02632
40	0.03900	0.00060	0.00026	0.00000	0.00039	0.00010	0.00020	0.02691
41	0.03600	0.00060	0.00032	0.00000	0.00039	0.00010	0.00020	0.02691
42	0.03300	0.00070	0.00037	0.00000	0.00039	0.00010	0.00020	0.02691
43	0.03000	0.00070	0.00042	0.00000	0.00052	0.00010	0.00025	0.02574
44	0.02700	0.00080	0.00047	0.00000	0.00052	0.00010	0.00025	0.02457
45	0.02300	0.00080	0.00058	0.00000	0.00065	0.00010	0.00030	0.02340
46	0.01900	0.00090	0.00068	0.00000	0.00065	0.00010	0.00035	0.02223
47	0.01500	0.00100	0.00079	0.00000	0.00078	0.00010	0.00040	0.02106
48	0.01200	0.00110	0.00089	0.00000	0.00078	0.00010	0.00045	0.01872
49	0.01000	0.00120	0.00100	0.00000	0.00091	0.00010	0.00050	0.01638
50	0.01000	0.00130	0.00110	0.03500	0.00104	0.00010	0.00055	0.01404
51	0.01000	0.00140	0.00121	0.02700	0.00117	0.00010	0.00065	0.01170
52	0.01000	0.00150	0.00137	0.02000	0.00130	0.00020	0.00075	0.00936
53	0.01000	0.00160	0.00152	0.02000	0.00143	0.00020	0.00085	0.00819
54	0.01000	0.00170	0.00168	0.04000	0.00156	0.00020	0.00095	0.00760
55	0.01000	0.00180	0.00184	0.05500	0.00169	0.00020	0.00105	0.00760
56	0.01000	0.00190	0.00200	0.06300	0.00182	0.00020	0.00115	0.00760
57	0.01000	0.00200	0.00210	0.07600	0.00195	0.00020	0.00125	0.00760
58	0.01000	0.00210	0.00221	0.09000	0.00208	0.00020	0.00135	0.00760
59	0.01000	0.00220	0.00226	0.13000	0.00221	0.00030	0.00145	0.00760
60	0.01000	0.00240	0.00231	0.15000	0.00234	0.00030	0.00155	0.00702
61	0.01000	0.00260	0.00236	0.18000	0.00247	0.00030	0.00160	0.00585
62	0.01000	0.00280	0.00241	0.40000	0.00260	0.00030	0.00165	0.00468
63	0.01000	0.00300	0.00247	0.24000	0.00286	0.00030	0.00170	0.00351
64	0.01000	0.00320	0.00252	0.25000	0.00312	0.00040	0.00175	0.00234
65	0.00000	0.00340	0.00000	0.35000	0.00351	0.00040	0.00000	0.00000
66	0.00000	0.00360	0.00000	0.35000	0.00390	0.00040	0.00000	0.00000
67	0.00000	0.00380	0.00000	0.35000	0.00442	0.00040	0.00000	0.00000
68	0.00000	0.00400	0.00000	0.45000	0.00507	0.00040	0.00000	0.00000
69	0.00000	0.00420	0.00000	0.60000	0.00585	0.00040	0.00000	0.00000
70	0.00000	0.00000	0.00000	1.00000	0.00000	0.00000	0.00000	0.00000

SCHEDULE 6
PROBABILITIES OF SEPARATION FROM ACTIVE SERVICE
(Recommended Assumptions)
GENERAL MEMBERS – FEMALES

Age	Withdrawal	Ordinary Death	Ordinary Disability	Service	Death While Eligible	Duty Death	Duty Disability	Terminated Vested
20	0.16500	0.00010	0.00000	0.00000	0.00000	0.00000	0.00005	0.00270
21	0.16500	0.00010	0.00000	0.00000	0.00000	0.00000	0.00005	0.00270
22	0.16000	0.00010	0.00000	0.00000	0.00000	0.00000	0.00005	0.00270
23	0.15500	0.00010	0.00000	0.00000	0.00000	0.00000	0.00005	0.00270
24	0.15500	0.00010	0.00000	0.00000	0.00000	0.00000	0.00005	0.00450
25	0.15000	0.00020	0.00010	0.00000	0.00008	0.00000	0.00005	0.00450
26	0.13000	0.00020	0.00010	0.00000	0.00008	0.00000	0.00005	0.00450
27	0.11500	0.00020	0.00010	0.00000	0.00008	0.00000	0.00005	0.00450
28	0.10500	0.00020	0.00010	0.00000	0.00008	0.00000	0.00005	0.00450
29	0.10200	0.00030	0.00010	0.00000	0.00008	0.00000	0.00010	0.00450
30	0.09500	0.00030	0.00010	0.00000	0.00008	0.00000	0.00010	0.00450
31	0.08400	0.00030	0.00010	0.00000	0.00008	0.00000	0.00010	0.00450
32	0.07000	0.00030	0.00010	0.00000	0.00008	0.00000	0.00010	0.00450
33	0.06000	0.00040	0.00010	0.00000	0.00008	0.00000	0.00010	0.00450
34	0.04900	0.00040	0.00010	0.00000	0.00008	0.00000	0.00010	0.00900
35	0.04600	0.00040	0.00020	0.00000	0.00008	0.00000	0.00010	0.01620
36	0.04200	0.00050	0.00020	0.00000	0.00008	0.00000	0.00010	0.01980
37	0.03900	0.00050	0.00020	0.00000	0.00008	0.00000	0.00010	0.01980
38	0.03700	0.00050	0.00030	0.00000	0.00008	0.00000	0.00010	0.01800
39	0.03500	0.00050	0.00030	0.00000	0.00008	0.00000	0.00015	0.01710
40	0.03200	0.00060	0.00030	0.00000	0.00008	0.00000	0.00015	0.01665
41	0.03000	0.00060	0.00040	0.00000	0.00008	0.00000	0.00015	0.01620
42	0.02900	0.00060	0.00040	0.00000	0.00008	0.00000	0.00015	0.01575
43	0.02700	0.00070	0.00050	0.00000	0.00008	0.00000	0.00015	0.01575
44	0.02500	0.00070	0.00050	0.00000	0.00008	0.00000	0.00015	0.01530
45	0.02500	0.00070	0.00060	0.00000	0.00015	0.00000	0.00020	0.01530
46	0.02400	0.00080	0.00070	0.00000	0.00015	0.00000	0.00020	0.01485
47	0.02400	0.00080	0.00080	0.00000	0.00015	0.00000	0.00020	0.01440
48	0.02300	0.00090	0.00090	0.00000	0.00015	0.00000	0.00025	0.01395
49	0.02300	0.00090	0.00100	0.00000	0.00022	0.00000	0.00025	0.01305
50	0.02200	0.00100	0.00110	0.04000	0.00022	0.00000	0.00030	0.01170
51	0.02200	0.00100	0.00120	0.03000	0.00022	0.00000	0.00030	0.00990
52	0.02100	0.00110	0.00130	0.03000	0.00030	0.00000	0.00035	0.00810
53	0.02100	0.00110	0.00140	0.03000	0.00030	0.00000	0.00040	0.00630
54	0.02000	0.00120	0.00150	0.03000	0.00030	0.00000	0.00045	0.00450
55	0.01900	0.00120	0.00160	0.08000	0.00030	0.00000	0.00050	0.00450
56	0.01800	0.00130	0.00170	0.03000	0.00038	0.00000	0.00055	0.00720
57	0.01700	0.00140	0.00180	0.08000	0.00038	0.00000	0.00060	0.00630
58	0.01500	0.00150	0.00190	0.10000	0.00038	0.00000	0.00065	0.00540
59	0.01400	0.00160	0.00210	0.12000	0.00045	0.00000	0.00070	0.00450
60	0.01300	0.00180	0.00230	0.14000	0.00045	0.00000	0.00075	0.00450
61	0.01300	0.00190	0.00250	0.10000	0.00045	0.00000	0.00085	0.00450
62	0.01300	0.00200	0.00270	0.30000	0.00052	0.00000	0.00100	0.00450
63	0.01300	0.00210	0.00290	0.12500	0.00052	0.00000	0.00110	0.00450
64	0.01300	0.00220	0.00310	0.12500	0.00052	0.00000	0.00125	0.00450
65	0.00000	0.00240	0.00000	0.45000	0.00060	0.00000	0.00000	0.00000
66	0.00000	0.00250	0.00000	0.20000	0.00060	0.00000	0.00000	0.00000
67	0.00000	0.00260	0.00000	0.30000	0.00060	0.00000	0.00000	0.00000
68	0.00000	0.00270	0.00000	0.30000	0.00068	0.00000	0.00000	0.00000
69	0.00000	0.00280	0.00000	0.30000	0.00068	0.00000	0.00000	0.00000
70	0.00000	0.00000	0.00000	1.00000	0.00000	0.00000	0.00000	0.00000

SCHEDULE 6
PROBABILITIES OF SEPARATION FROM ACTIVE SERVICE
(Recommended Assumptions)
SAFETY MEMBERS

Age	Withdrawal	Ordinary Death	Ordinary Disability	Service	Death While Eligible	Duty Death	Duty Disability	Terminated Vested
20	0.10500	0.00015	0.00000	0.00000	0.00000	0.00015	0.00060	0.00100
21	0.09500	0.00015	0.00000	0.00000	0.00000	0.00015	0.00060	0.00110
22	0.09000	0.00015	0.00000	0.00000	0.00000	0.00015	0.00060	0.00120
23	0.08500	0.00015	0.00000	0.00000	0.00000	0.00015	0.00070	0.00130
24	0.08000	0.00015	0.00000	0.00000	0.00000	0.00015	0.00070	0.00140
25	0.07500	0.00022	0.00020	0.00000	0.00008	0.00022	0.00080	0.00200
26	0.07200	0.00022	0.00020	0.00000	0.00008	0.00022	0.00090	0.00300
27	0.07000	0.00022	0.00030	0.00000	0.00015	0.00022	0.00100	0.00500
28	0.06800	0.00022	0.00030	0.00000	0.00015	0.00022	0.00110	0.01000
29	0.06600	0.00022	0.00030	0.00000	0.00015	0.00022	0.00120	0.01700
30	0.06400	0.00030	0.00030	0.00000	0.00015	0.00030	0.00130	0.02500
31	0.06000	0.00030	0.00040	0.00000	0.00015	0.00030	0.00140	0.03400
32	0.05500	0.00030	0.00040	0.00000	0.00015	0.00030	0.00160	0.03000
33	0.04900	0.00030	0.00040	0.00000	0.00015	0.00030	0.00180	0.02700
34	0.04300	0.00030	0.00050	0.00000	0.00015	0.00030	0.00210	0.02400
35	0.03700	0.00038	0.00060	0.00000	0.00015	0.00038	0.00230	0.02200
36	0.03100	0.00038	0.00060	0.00000	0.00015	0.00038	0.00250	0.02000
37	0.02800	0.00038	0.00070	0.00000	0.00015	0.00038	0.00280	0.01800
38	0.02500	0.00038	0.00080	0.00000	0.00015	0.00038	0.00310	0.01600
39	0.02200	0.00038	0.00090	0.00000	0.00015	0.00038	0.00350	0.01400
40	0.01900	0.00045	0.00100	0.00000	0.00022	0.00045	0.00390	0.01200
41	0.01700	0.00045	0.00100	0.00000	0.00022	0.00045	0.00430	0.01000
42	0.01500	0.00045	0.00110	0.00000	0.00022	0.00045	0.00470	0.00800
43	0.01200	0.00052	0.00120	0.00000	0.00022	0.00052	0.00520	0.00600
44	0.01000	0.00052	0.00120	0.00000	0.00022	0.00052	0.00580	0.00400
45	0.00900	0.00060	0.00130	0.02000	0.00030	0.00060	0.00640	0.00300
46	0.00800	0.00060	0.00140	0.02000	0.00030	0.00060	0.00710	0.00200
47	0.00700	0.00068	0.00140	0.02000	0.00038	0.00068	0.00790	0.00100
48	0.00600	0.00068	0.00150	0.02000	0.00045	0.00068	0.00880	0.00080
49	0.00500	0.00075	0.00160	0.02500	0.00052	0.00075	0.00970	0.00050
50	0.00500	0.00075	0.00160	0.03000	0.00060	0.00075	0.01060	0.00000
51	0.00400	0.00082	0.00170	0.03000	0.00068	0.00082	0.01150	0.00000
52	0.00400	0.00082	0.00180	0.05000	0.00075	0.00090	0.01250	0.00000
53	0.00300	0.00090	0.00190	0.07000	0.00082	0.00097	0.01350	0.00000
54	0.00000	0.00090	0.00200	0.09000	0.00090	0.00097	0.01450	0.00000
55	0.00000	0.00097	0.00200	0.15000	0.00097	0.00105	0.01550	0.00000
56	0.00000	0.00097	0.00210	0.10000	0.00105	0.00112	0.01650	0.00000
57	0.00000	0.00105	0.00220	0.10000	0.00112	0.00120	0.01750	0.00000
58	0.00000	0.00105	0.00220	0.25000	0.00120	0.00127	0.01850	0.00000
59	0.00000	0.00112	0.00230	0.30000	0.00127	0.00135	0.01950	0.00000
60	0.00000	0.00000	0.00000	1.00000	0.00000	0.00000	0.00000	0.00000

SCHEDULE 7

YEARS OF LIFE EXPECTANCY AFTER SERVICE RETIREMENT

	General				General		
Age	Male	Female	Safety	Age	Male	Female	Safety
50	30.69	33.94	30.69	81	7.89	9.14	7.89
51	29.77	32.99	29.77	82	7.44	8.58	7.44
52	28.85	32.05	28.85	83	7.00	8.05	7.00
53	27.95	31.11	27.95	84	6.59	7.54	6.59
54	27.04	30.17	27.04	85	6.19	7.06	6.19
55	26.15	29.24	26.15	86	5.80	6.59	5.80
56	25.27	28.31	25.27	87	5.43	6.15	5.43
57	24.39	27.40	24.39	88	5.07	5.73	5.07
58	23.52	26.49	23.52	89	4.73	5.34	4.73
59	22.67	25.59	22.67	90	4.42	4.98	4.42
60	21.83	24.70	21.83	91	4.13	4.64	4.13
61	21.00	23.82	21.00	92	3.86	4.33	3.86
62	20.18	22.96	20.18	93	3.61	4.04	3.61
63	19.39	22.11	19.39	94	3.37	3.76	3.37
64	18.60	21.28	18.60	95	3.16	3.51	3.16
65	17.84	20.46	17.84	96	2.98	3.28	2.98
66	17.10	19.65	17.10	97	2.81	3.06	2.81
67	16.37	18.86	16.37	98	2.66	2.86	2.66
68	15.66	18.08	15.66	99	2.52	2.67	2.52
69	14.97	17.31	14.97	100	2.39	2.50	2.39
70	14.29	16.54	14.29	101	2.26	2.34	2.26
71	13.63	15.78	13.63	102	2.15	2.19	2.15
72	12.98	15.04	12.98	103	2.04	2.06	2.04
73	12.34	14.31	12.34	104	1.93	1.94	1.93
74	11.72	13.60	11.72	105	1.84	1.83	1.84
75	11.12	12.90	11.12	106	1.75	1.74	1.75
76	10.53	12.22	10.53	107	1.68	1.66	1.68
77	9.96	11.57	9.96	108	1.62	1.59	1.62
78	9.40	10.93	9.40	109	1.57	1.54	1.57
79	8.88	10.31	8.88	110	1.52	1.50	1.52
80	8.37	9.71	8.37	111	--	--	--

1994 GA (x, y+1) for General Members

1994 GA (x) for Safety Members

SCHEDULE 7

YEARS OF LIFE EXPECTANCY AFTER DISABILITY RETIREMENT

GENERAL MEMBERS

Age	Years of Life Expectancy	Age	Years of Life Expectancy	Age	Years of Life Expectancy
20	38.73	51	20.59	82	6.27
21	37.98	52	20.11	83	5.94
22	37.26	53	19.63	84	5.63
23	36.56	54	19.16	85	5.34
24	35.87	55	18.68	86	5.06
25	35.19	56	18.22	87	4.80
26	34.53	57	17.75	88	4.55
27	33.87	58	17.29	89	4.31
28	33.23	59	16.83	90	4.09
29	32.60	60	16.37	91	3.87
30	31.98	61	15.91	92	3.66
31	31.37	62	15.45	93	3.46
32	30.76	63	14.99	94	3.26
33	30.17	64	14.53	95	3.07
34	29.58	65	14.07	96	2.89
35	29.00	66	13.60	97	2.71
36	28.43	67	13.13	98	2.54
37	27.87	68	12.66	99	2.37
38	27.31	69	12.18	100	2.20
39	26.76	70	11.70	101	2.04
40	26.21	71	11.21	102	1.88
41	25.67	72	10.72	103	1.72
42	25.14	73	10.22	104	1.55
43	24.61	74	9.73	105	1.38
44	24.09	75	9.24	106	1.21
45	23.57	76	8.76	107	1.04
46	23.06	77	8.28	108	.88
47	22.56	78	7.83	109	.72
48	22.06	79	7.41	110	.50
49	21.57	80	7.00		
50	21.08	81	6.63		

1981 Disability (General)

SCHEDULE 7

YEARS OF LIFE EXPECTANCY AFTER DISABILITY RETIREMENT

SAFETY MEMBERS

Age	Years of Life Expectancy	Age	Years of Life Expectancy	Age	Years of Life Expectancy
20	49.29	51	22.80	81	6.63
21	48.39	52	22.03	82	6.27
22	47.48	53	21.26	83	5.94
23	46.58	54	20.50	84	5.63
24	45.68	55	19.77	85	5.34
25	44.79	56	19.06	86	5.06
26	43.89	57	18.40	87	4.80
27	43.01	58	17.78	88	4.55
28	42.12	59	17.20	89	4.31
29	41.24	60	16.64	90	4.09
30	40.36	61	16.11	91	3.87
31	39.48	62	15.59	92	3.66
32	38.61	63	15.08	93	3.46
33	37.74	64	14.58	94	3.26
34	36.88	65	14.09	95	3.07
35	36.02	66	13.61	96	2.89
36	35.16	67	13.13	97	2.71
37	34.31	68	12.66	98	2.54
38	33.46	69	12.18	99	2.37
39	32.61	70	11.70	100	2.20
40	31.77	71	11.21	101	2.04
41	30.93	72	10.72	102	1.88
42	30.09	73	10.22	103	1.72
43	29.26	74	9.73	104	1.55
44	28.43	75	9.24	105	1.38
45	27.61	76	8.75	106	1.21
46	26.80	77	8.28	107	1.04
47	25.99	78	7.83	108	.88
48	25.18	79	7.41	109	.72
49	24.38	80	7.00	110	.50
50	23.59				

1981 Disability (Safety)

SCHEDULE 8

GLOSSARY OF TERMS

Following is a glossary of some of the commonly used actuarial terms.

Actuarial Accrued Liability	The portion, as determined by a particular cost method, of the total present value of benefits that is attributable to past service credit
Actuarial Gain (Loss)	A measure of the difference between actual and expected experience based upon a set of actuarial assumptions. Examples include higher than expected salary increases (loss) and a higher return on fund assets than anticipated (gain).
Actuarial Present Value	Also referred to as the present value of benefits. It is the value, as of a specified date, of an amount payable in the future, where the amount has been adjusted to reflect both the time value of money and the probability that the payment is actually made.
Amortization or UAAL Payment	That portion of the pension plan contribution which is designed to pay off (amortize) the unfunded actuarial accrued liability in a systematic fashion. Equivalently, it is a series of periodic payments required to pay off a debt.
Annual Amount	Estimated contributions due for the year in order to ensure the orderly funding of the pension plan (equal to the contribution rate multiplied by the annual payroll). The annual amount is comprised of normal cost and UAAL payments.
Entry Age Actuarial Cost Method	This method assumes that the annual costs are the level premiums needed from entry age until retirement age to fund the ultimate retirement benefit. These premiums are expressed as a percentage of salary. The portion of this actuarial present value allocated to a valuation year is called the normal cost.

Final Average Salary	The average amount of compensation earned over a specified number of consecutive months preceding retirement during which compensation was highest.
Funding Policy	The policy for the amounts and timing of contributions to be made by the employer, members, and any other sources to provide the benefits promised by the pension plan.
Noneconomic Actuarial Assumptions	Probabilities that members will separate from active service for causes such as retirement, disability, death and withdrawal, as well as rates of post-retirement mortality. The probabilities reflect the experience of the Association membership.
Normal Cost	The ongoing annual cost allocated to the system by a particular actuarial cost method for providing benefits (future cost). Normal cost payments are made during the working lifetime of the member.
Unfunded Actuarial Accrued Liability	The excess of the actuarial accrued liability over the actuarial value of assets.
Vested Benefit	The benefit an employee is entitled to even if the employee separates from active service prior to normal retirement age.

SCHEDULE 9

RATIO OF CURRENT COMPENSATION TO COMPENSATION ANTICIPATED AT RETIREMENT

	GENERAL		SAFETY			GENERAL		SAFETY	
Age	Study 1	Study 2, 3 & 4	Study 1	Study 2, 3 & 4	Age	Study 1	Study 2, 3 & 4	Study 1	Study 2, 3 & 4
20	.055	.062	.108	.118	46	.291	.308	.487	.503
21	.061	.069	.117	.128	47	.306	.323	.513	.529
22	.067	.076	.125	.137	48	.322	.339	.539	.555
23	.074	.083	.134	.146	49	.338	.356	.568	.583
24	.080	.090	.143	.156	50	.357	.374	.597	.612
25	.087	.097	.153	.166	51	.376	.394	.629	.643
26	.094	.105	.162	.176	52	.395	.413	.662	.675
27	.101	.112	.173	.187	53	.416	.433	.697	.709
28	.109	.120	.183	.198	54	.438	.455	.734	.745
29	.117	.128	.195	.210	55	.462	.479	.773	.782
30	.124	.137	.207	.222	56	.486	.503	.814	.822
31	.133	.146	.219	.235	57	.512	.528	.858	.864
32	.141	.155	.232	.248	58	.539	.554	.902	.907
33	.149	.163	.246	.262	59	.568	.583	.950	.952
34	.157	.171	.260	.277	60	.597	.612	1.000	1.000
35	.165	.179	.275	.292	61	.628	.642		
36	.173	.188	.290	.307	62	.662	.675		
37	.183	.198	.306	.323	63	.697	.709		
38	.193	.208	.322	.340	64	.734	.745		
39	.203	.218	.339	.357	65	.773	.782		
40	.213	.229	.357	.374	66	.814	.822		
41	.225	.241	.376	.393	67	.857	.863		
42	.237	.253	.396	.413	68	.902	.907		
43	.249	.265	.417	.434	69	.950	.952		
44	.262	.279	.439	.456	70	1.000	1.000		
45	.276	.293	.461	.478					

Study 1: Salary scale assumption reflects 4.75% for inflation and graded merit and longevity.

Study 2, 3 & 4: Salary scale assumption reflects 4.50% for inflation and graded merit and longevity.

SCHEDULE 10

ASSET STATEMENT

FRESNO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
STATEMENTS OF PLAN NET ASSETS
JUNE 30, 2000 AND 1999
(amounts expressed in thousands)

	2000	1999
ASSETS:		
Cash and cash equivalents	$ 76,719	$ 92,993
Securities lending short-term investment pool	278,081	199,198
Total cash and cash equivalents (Note 3)	354,800	292,191
Receivables:		
Investment trades receivable (Note 4)	105,605	159,333
Interest and dividends receivable	7,307	8,753
Note receivable (Note 5)	640	640
Contributions and other receivables	3,988	3,567
Securities lending receivable	1,710	792
Total receivables	119,250	173,085
Investments, at fair value (Note 3):		
Domestic stocks	662,764	726,936
Domestic bonds	234,338	272,374
International stocks	393,306	317,577
Mortgage backed securities	178,889	136,035
Private markets	139,438	102,484
Global Bond Index Fund	49,835	48,315
Global bonds	52,080	59,561
Total investments	1,710,650	1,663,282
Fixed assets, net of accumulated depreciation of $101 and $67, respectively	351	347
Prepaid expenses	23	0
Total assets	2,185,074	2,128,905
LIABILITIES:		
Investment trades payable (Note 4)	121,171	180,395
Obligations for reverse repurchase agreement (Note 3)	0	50,685
Cash collateral payable for securities lending (Note 3)	278,081	199,198
Accounts payable	2,287	2,854
Securities lending bank and broker fees	1,505	746
Total liabilities	403,044	433,878
NET ASSETS HELD IN TRUST FOR PENSION BENEFITS (Note 6)	$ 1,782,030	$ 1,695,027