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

March 18, 1999

Mr. Gary Peterson
Fresno County
Employees' Retirement Association
2281 Tulare Street, Room 102
Fresno, California 93721

Re: June 30, 1998 Actuarial Report

Dear Gary:

Enclosed please find thirty (30) bound copies of our Actuarial Valuation Report as of June 30, 1998. We have also enclosed one (1) unbound copy in case you need to make additional sets.

If you have any questions, please let us know.

Sincerely,

Krystyna H. Upstill
Principal and Consulting Actuary

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

March 18, 1999

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, 1998.

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.
Consulting Actuary

KHU/MM:abd

Buck Consultants, Inc.
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FRESNO COUNTY

EMPLOYEES' RETIREMENT ASSOCIATION

REPORT ON THE ACTUARIAL VALUATION AS OF JUNE 30, 1998

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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, 1998, 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 and 31664, respectively, of the County Employees Retirement Law of 1937.

Effective March 19, 1998, the County issued a $183,632,000 Pension Obligation Bond. The costs developed for this report reflect the issuance of the bond.

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 10,153 to 10,583. Active membership increased by 6.6% and total covered payroll increased by 14.8%.

The number of retired members went up by 1.4% and the retired pension roll increased by 5.6%.

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, 1996 through June 30, 1998. 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.

In our report we calculated the contribution rates based on the current 4.75% long term level of inflation as well as on an inflation rate of 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 continued. Combining the inflation with the real rate of return results in long-term investment return assumptions of 8.25% and 8.00%, respectively.

We incorporated the same inflation assumption levels 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, 1996 valuation is shown on the following page. 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*				
Total Rate	11.52%	$ 25,273,000	4.84%	$ 10,628,000
POB Rate	- 8.79%	- $ 19,281,000		
Net Rate	2.73%	$ 5,992,000	3.21%	$ 7,045,000
Recalculated Rates				
Study 1 - Based on: *8.25% interest, 4.75% inflation, current noneconomic assumptions*				
Before Transfer	6.31%	$ 13,847,000	4.96%	$ 10,877,000
Study 2 - Based on: *8.25% interest, 4.75% inflation, recommended noneconomic assumptions*				
Before Transfer	6.41%	$ 14,053,000	4.98%	$ 10,925,000
Study 3 - Based on: *8.00% interest, 4.50% inflation, recommended noneconomic assumptions*				
Before Transfer	7.87%	$ 17,266,000	5.13%	$ 11,265,000

*Based on June 30, 1998 payroll.

The overall decrease in total employer contribution rates before the change in noneconomic assumptions (Study 1) was primarily attributable to favorable investment experience.

Section V - Assets and Liabilities

Actuarial Value of Assets

We recommend the use of a five-year smoothed market value of the Fund's assets for purposes of determining the employer contribution rates. Under the current method realized and unrealized gains and losses are spread over three years, i.e. only 33-1/3% is recognized in any one year; under the proposed 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, 1998 the net actuarial value of assets was $1,392,965,000 and the net market value of assets was $1,625,611,000. The return on investments, net of expenses, was 20.0% as of June 30, 1997 and 19.3% as of June 30, 1998, on a market value basis.

Actuarial Balance Sheet

The actuarial balance sheet compares the present value of all future benefits anticipated 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%)

*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, 1998 actuarial valuation of your Association was based on the following data. For comparison, we also show a summary of the June 30, 1996 statistical information.

SUMMARY OF ACTIVE MEMBERSHIP			
	June 30, 1998	June 30, 1996	Percentage Change During the Period
General			
Number	5,200	4,856	7.1%
Annual Payroll*	$ 181,813,000	$ 158,601,000	14.6%
Average Monthly Salary	$ 2,914	$ 2,722	7.1%
Average Age	43.54	42.63	2.1%
Average Service	9.82	9.35	5.0%
Safety			
Number	857	826	3.8%
Annual Payroll*	$ 37,585,000	$ 32,513,000	15.6%
Average Monthly Salary	$ 3,655	$ 3,280	11.4%
Average Age	40.16	39.18	2.5%
Average Service	10.63	9.83	8.1%
Total			
Number	6,057	5,682	6.6%
Annual Payroll*	$ 219,398,000	$ 191,114,000	14.8%
Average Monthly Salary	$ 3,019	$ 2,803	7.7%
Average Age	43.06	42.13	2.2%
Average Service	9.93	9.42	5.4%

SUMMARY OF INACTIVE MEMBERSHIP			
	June 30, 1998	June 30, 1996	Percentage Change During the Period
General			
Number*	1,378	1,393	(1.1)%
Safety			
Number*	104	77	35.1%
Total			
Number*	1,482	1,470	0.8%

*Excludes pending withdrawals.

SUMMARY OF RETIRED MEMBERSHIP			
	June 30, 1998	June 30, 1996	Percentage Change During the Period
General			
Number	2,746	2,721	0.9%
Annual Allowance	$ 34,042,000	$ 32,505,000	4.7%
Average Monthly Allowance	$ 1,033	$ 995	3.8%
Safety			
Number	298	280	6.4%
Annual Allowance	$ 5,899,000	$ 5,327,000	10.7%
Average Monthly Allowance	$ 1,650	$ 1,585	4.1%
Total			
Number	3,044	3,001	1.4%
Annual Allowance	$ 39,941,000	$ 37,832,000	5.6%
Average Monthly Allowance	$ 1,093	$ 1,051	4.0%

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, 1998 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, 1996 and ending June 30, 1998. 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 and female members to more accurately reflect the actual experience of this group. The Safety member rates were not adjusted based on the four-year experience trends.

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

Observed rates of *service retirement* over the two-year and four-year periods were lower than those currently in use for Safety members. Adjustments were made to almost all of the Safety retirement rates to reflect the lower incidence of service retirement.

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		
	Actual Separations	Expected Separations
Withdrawal		
General Male	103	143
General Female	189	327
Safety	33	50
Ordinary Death		
General Male	4	4
General Female	6	4
Safety	0	1

SUMMARY OF ACTUARIAL INVESTIGATION WITH RESPECT TO RATES OF SEPARATION FROM ACTIVE SERVICE		
	Actual Separations	Expected Separations
Duty Death		
General Male	0	0*
General Female	0	0
Safety	0	1
Death While Eligible		
General Male	2	3
General Female	0	1
Safety	2	0*
Ordinary Disability**		
General Male	3	4
General Female	1	4
Safety	1	1
Duty Disability***		
General Male	2	2
General Female	1	3
Safety	12	5
Service Retirement		
General Male	77	81
General Female	78	95
Safety	12	44
Deferred Retirement		
General Male	75	45
General Female	117	64
Safety	15	17

*Less than one person.

**Includes one pending Safety disability.

***Includes three pending Safety and one pending General female disability.

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

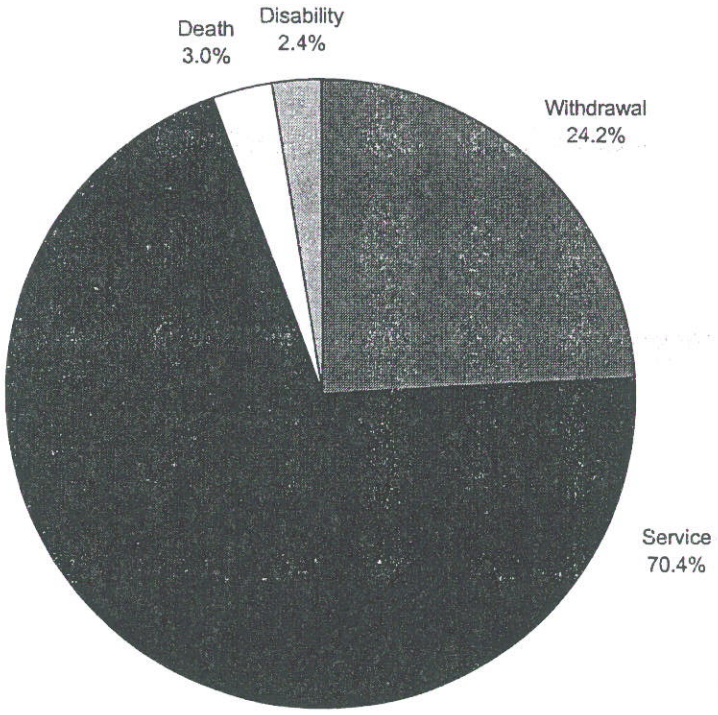
Current Assumptions

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	38	33	2	2	0	0	0	0	0
25-29	164	120	22	18	1	1	0	1	0
30-34	188	95	52	34	2	2	0	2	1
35-39	268	89	111	53	4	4	1	4	2
40-44	319	64	184	49	6	5	1	7	3
45-49	394	45	286	35	7	7	1	9	4
50-54	373	29	304	17	6	6	1	7	3
55-59	204	10	180	5	3	3	0	3	1
60-64	53	1	50	0	1	1	0	0	0
65 & OVER	11	0	11	0	0	0	0	0	0
TOTAL	2,012	486	1,202	213	30	27	4	34	15
		24.2%	59.8%	10.6%	1.5%	1.3%	0.2%	1.7%	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

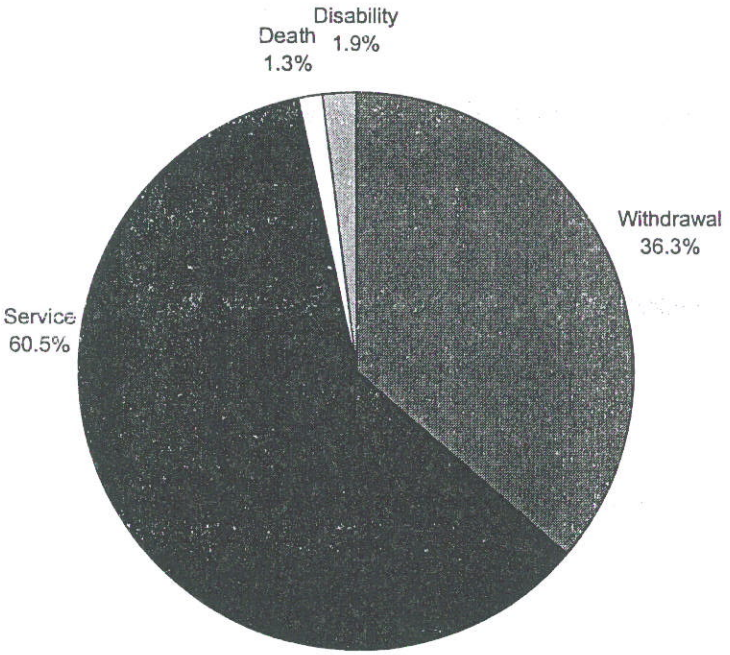
Current Assumptions

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	71	64	3	3	0	0	0	0	0
25-29	288	236	25	23	1	0	0	1	1
30-34	357	229	70	50	3	1	0	2	2
35-39	471	219	160	77	5	1	0	5	3
40-44	565	183	285	75	7	2	0	8	5
45-49	632	139	413	53	8	2	0	9	6
50-54	468	66	363	21	6	1	0	7	4
55-59	237	17	207	6	2	1	0	3	2
60-64	83	3	78	1	1	0	0	1	0
65 & OVER	16	0	16	0	0	0	0	0	0
TOTAL	3,188	1,157	1,621	308	34	8	0	36	24
		36.3%	50.8%	9.7%	1.1%	0.2%	0.0%	1.1%	0.8%

* 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

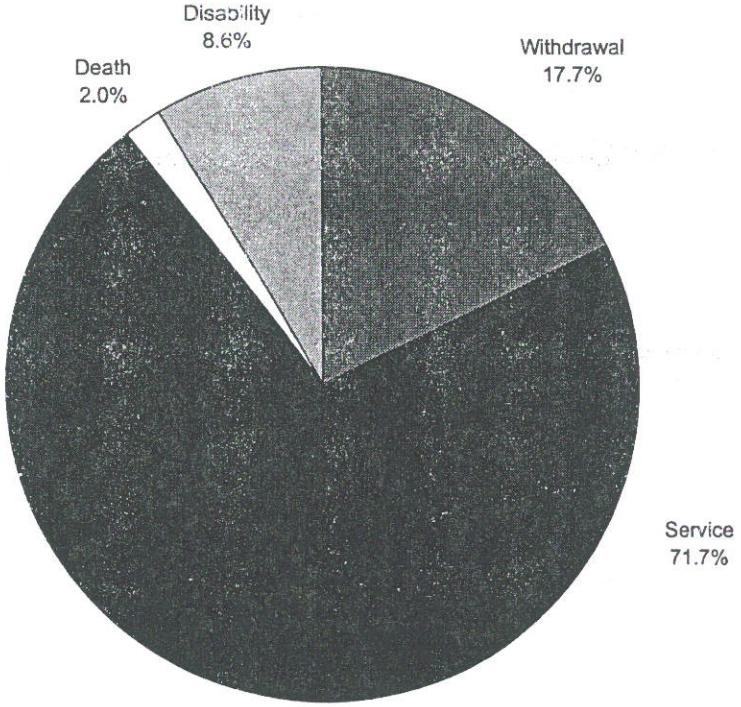
Current Assumptions

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	15	9	3	2	0	0	0	0	1
25-29	120	56	34	21	1	0	1	1	6
30-34	164	50	71	26	1	1	1	3	11
35-39	142	24	89	11	1	1	1	3	13
40-44	128	9	99	3	1	1	1	2	12
45-49	134	4	114	0	1	1	1	2	11
50-54	116	1	105	0	1	1	1	1	7
55 & OVER	38	0	37	0	0	0	0	0	1
TOTAL	857	152	551	63	6	5	6	12	62
		17.7%	64.3%	7.4%	0.7%	0.6%	0.7%	1.4%	7.2%

* 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

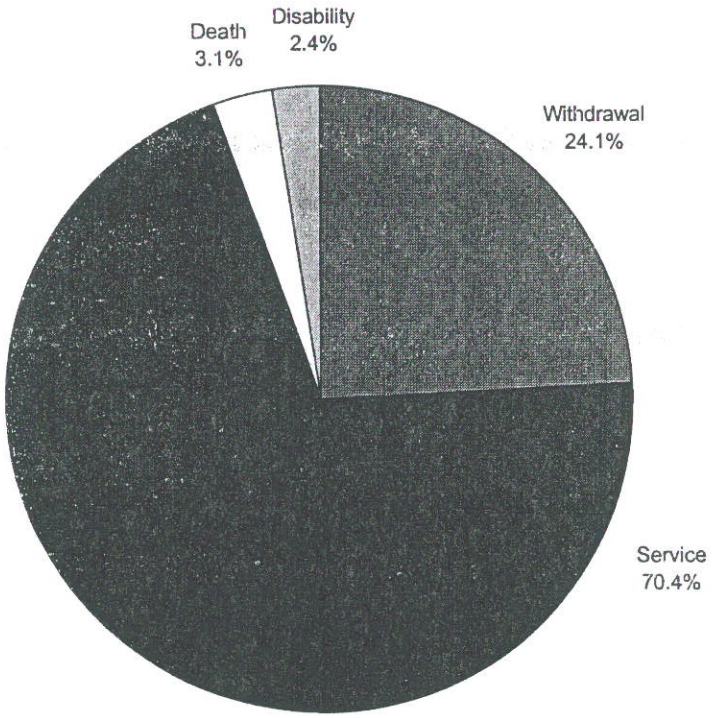
Recommended Assumptions

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	38	33	3	2	0	0	0	0	0
25-29	164	119	23	18	1	1	0	1	1
30-34	188	95	52	34	2	2	0	2	1
35-39	268	89	111	53	4	4	1	4	2
40-44	319	64	184	49	6	5	1	7	3
45-49	394	45	286	35	7	7	1	9	4
50-54	373	29	304	17	6	6	1	7	3
55-59	204	10	180	5	3	3	0	3	1
60-64	53	1	50	0	1	1	0	0	0
65 & OVER	11	0	11	0	0	0	0	0	0
TOTAL	2,012	485	1,202	214	31	27	4	34	15
		24.1%	59.9%	10.6%	1.5%	1.3%	0.2%	1.7%	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

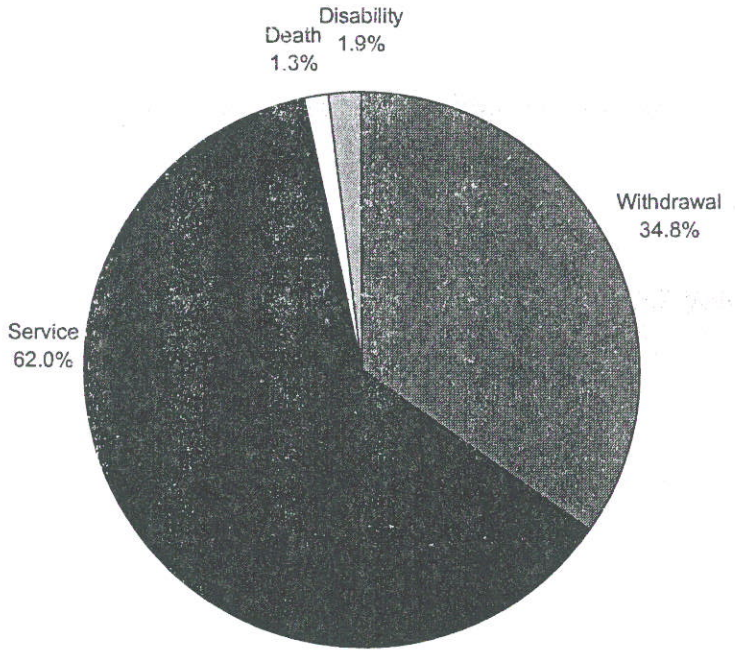
Recommended Assumptions

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	71	63	4	4	0	0	0	0	0
25-29	288	224	33	27	2	0	0	1	1
30-34	357	209	83	57	3	1	0	3	2
35-39	471	207	169	80	6	1	0	5	3
40-44	565	182	286	75	7	2	0	8	5
45-49	632	139	414	53	8	2	0	9	6
50-54	468	66	363	21	6	1	0	7	4
55-59	237	17	207	6	2	1	0	3	2
60-64	83	3	78	1	1	0	0	1	0
65 & OVER	16	0	16	0	0	0	0	0	0
TOTAL	3,188	1,109	1,652	324	35	8	0	37	24
		34.8%	51.8%	10.2%	1.1%	0.2%	0.0%	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



SAFETY MEMBERS

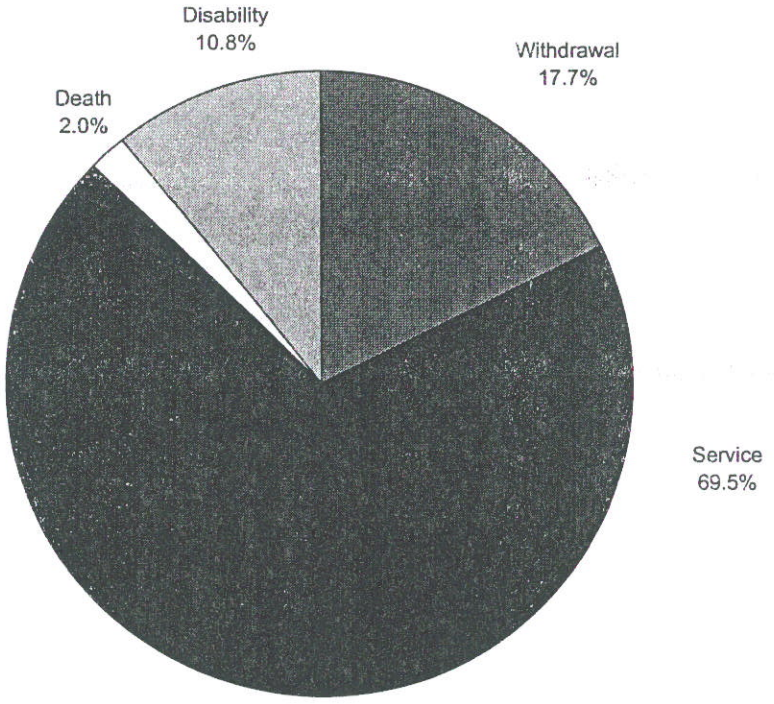
Recommended Assumptions

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	15	9	3	2	0	0	0	0	1
25-29	120	56	32	21	1	0	1	1	7
30-34	164	50	68	26	1	1	1	3	14
35-39	142	24	85	11	1	1	1	3	16
40-44	128	9	95	3	1	1	1	2	15
45-49	134	4	110	0	1	1	1	2	15
50-54	116	1	102	0	1	1	1	1	10
55 & OVER	38	0	36	0	0	0	0	0	1
TOTAL	857	152	532	63	6	5	6	13	80
		17.7%	62.1%	7.4%	0.7%	0.6%	0.7%	1.5%	9.3%

* 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

The results of the experience analysis are as follows:

NUMBER OF DEATHS AFTER SERVICE RETIREMENT		
	Actual	Expected
General Males and Male Beneficiaries*	61	71
General Females and Female Beneficiaries**	79	88
Safety Members***	13	8

*For the 4-year period the actual and expected numbers were 126 and 134, respectively.

**For the 4-year period the actual and expected numbers were 174 and 166, respectively.

***10 out of the 13 deaths occurred during fiscal year 1997/98. The actual and expected numbers for 1996/97 fiscal year were 3 and 4, respectively.

Based on these results, we recommend that no changes be made in the mortality table used for General or Safety members.

Recommended 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

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

In 1976, the law was changed to remove the sex differential in employee contribution rates. Therefore, employee contribution rates continue to be based on the following unisex mortality tables, which were adopted for use during the July 1, 1994 valuation.

Mortality Tables for Employee Contribution Rates

General Members	1983 Group Annuity Mortality Table for Males, set back 4 years
Safety Members	1983 Group Annuity Mortality Table for Males, set back 1 year

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

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

Mortality Tables for Retirement Allowance Calculations

General Members & Beneficiaries	1983 Group Annuity Mortality Table for Males, set back 4 years
Safety Members	1983 Group Annuity Mortality Table for Males, set back 1 year
Safety Beneficiaries	1983 Group Annuity Mortality Table for Females, with no adjustment

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
General Members*	11	14
Safety Members	2	2

*For the 4-year period the actual and expected numbers were 26 and 28, respectively.

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 5.25%.

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 4.53%.

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	4.50%	San Bernardino	4.75%
Fresno	**4.75%**	San Diego	4.00%
Imperial	5.00%	San Joaquin	4.50%
Kern	4.50%	San Mateo	4.50%
Los Angeles	4.00%	Santa Barbara	4.75%
Marin	4.50%	Sonoma	4.50%
Mendocino	4.75%	Stanislaus	4.50%
Merced	4.50%	Tulare	4.75%
Orange	4.50%	Ventura	4.50%

Based on the information presented in this section, we recommend that the current inflation rate assumption of 4.75% continue to be used at this time.

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, 1998 (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 1926-1997 called Stocks, Bonds and Inflation: Simulations of the Future. The results of this study are presented below.

Ibbotson-Sinquefield Real Rates of Return (1926 - 1997)	
Stocks	7.7%
Long-term government bonds	2.1%
Long-term corporate bonds	2.6%
Treasury bills	0.6%

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 5.7% (assuming an equal proportion of government and corporate bonds, and a 7.0% 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 3.50% provides a reasonable degree of conservatism when used with a 4.75% or 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%
June 30, 1990	10.8%		4.7%

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, 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%
17-Year Average	N/A	N/A	3.5%
7-Year Average	N/A	13.7%	2.6%

*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 continue to 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 4.75% inflation rate, the total recommended salary scale assumption amounts to 5.75%.

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, 1996 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				
Total Rate	11.52%	$ 25,273,000	4.84%	$ 10,628,000
POB Rate	- 8.79%	- $ 19,281,000		
Net Rate	2.73%	$ 5,992,000	3.21%	$ 7,045,000
Recalculated Rates				
Study 1 - Based on:				
8.25% interest, 4.75% inflation, current noneconomic assumptions				
Before Transfer	6.31%	$ 13,847,000	4.96%	$ 10,877,000
Study 2 - Based on:				
8.25% interest, 4.75% inflation, recommended noneconomic assumptions				
Before Transfer	6.41%	$ 14,053,000	4.98%	$ 10,925,000
Study 3 - Based on:				
8.00% interest, 4.50% inflation, recommended noneconomic assumptions				
Before Transfer	7.87%	$ 17,266,000	5.13%	$ 11,265,000

*Based on June 30, 1998 payroll.

MEMBER CONTRIBUTION RATES

Member Basic Contributions

Section 31621.5 sets forth the basis for the determination of the normal rates of contribution for General members. 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 1983 Group Annuity Mortality Table for Males with a 4 year setback. The Safety basic employee rates are based upon the 1983 Group Annuity Mortality Table for Males set back 1 year. These are the same as the assumptions currently in use.

Employee basic contribution rates for Study 3 have increased for General and Safety members due to a lower future interest rate assumption. This increase was partially offset by the lower future inflation assumption.

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 51.04% for all members. These cost of living percentages increase to 54.57% for Study 1, 55.45% for Study 2, and 56.93% for Study 3. The increase in the cost of living percentage from the prior valuation to Study 1 is due to the older entry age for the new hires. The change in the noneconomic assumptions is the reason for the decrease in the cost of living percentage from Study 1 to Study 2. The lower interest rate assumption used in Study 3 causes the cost of living percentage to increase from Study 2 to Study 3.

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	4.69%	5.59%
After Transfer	3.11%	3.70%
Recalculated Rates		
Study 1		
Before Transfer	4.80%	5.72%
Study 2		
Before Transfer	4.82%	5.75%
Study 3		
Before Transfer	4.97%	5.93%

SAMPLE GENERAL MEMBER CONTRIBUTION RATES* Before Transfers			
Entry Age	Study 1	Study 2	Study 3
25	4.54%	4.57%	4.71%
35	5.24%	5.27%	5.43%
59	7.45%	7.49%	7.72%

*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	5.78%	5.81%	6.01%
35	6.60%	6.64%	6.86%
49	8.07%	8.11%	8.40%

*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 12 years from June 30, 1998.

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 2). The recommended rates do not reflect any reduction based on the balance of the transfer made for the four-year period ending June 30, 2001.

TOTAL EMPLOYER CONTRIBUTION RATES
Current and Recommended (Study 2)

	General Members		Safety Members		All Members*	
	Current	Recommended**	Current	Recommended**	Current	Recommended**
Total Rate	10.81%	5.42%	14.95%	11.17%	11.52%	6.41%
POB Rate	- 8.74%	N/A	- 9.02%	N/A	- 8.79%	N/A
Net Rate	2.07%	5.42%	5.93%	11.17%	2.73%	6.41%

*Weighted by June 30, 1998 payroll.

**Does not reflect the balance of the July 1, 1997 transfer.

The overall decrease in total employer contribution rates before the change in noneconomic assumptions (Study 1) was primarily attributable to favorable investment experience.

RECOMMENDATIONS

We recommend that the Board adopt Study 2 contribution rates as of June 30, 1998 as shown in this section. These rates reflect the recommended noneconomic actuarial assumptions and the current economic actuarial assumptions. 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 12 years from June 30, 1998, 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 the July 1, 1997 transfer. The balance is equivalent to 6.36% of total payroll for the next three years.

	GENERAL	SAFETY
Rate Net of POB Contribution	5.42%	11.17%
POB Rate	8.74%	9.02%
Total Employer Rate	14.16%	20.19%

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 $1.50 per year of service up to an $90.00 maximum for employees hired before 1/1/90 and $3.00 per year of service up to an $90.00 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, 1998 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, 1998 are excluded from this analysis.

RETIREE HEALTH INSURANCE BENEFITS	
Present Value of Benefits	
Current Actives and Inactives	$ 17,567,000
Current Retirees	$ 23,041,000
Total Present Value	$ 40,608,000
Less: Retiree Health Insurance Reserve	$ 39,625,000
Net Present Value	$ 983,000

Presently, the assets supporting the supplemental benefits are held in a health insurance reserve. As of June 30, 1998 (the valuation date of the present value of benefits), the health insurance reserve amounted to $39,625,000. Thus, as of that date, the reserve was not sufficient to provide for the continuation of the benefits for current retirees and for current employees when they retire.

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, 1998 (Section 31870.1)
On or Before 4/1/73	69.0%
4/2/73 to 4/1/74	68.5%
4/2/74 to 4/1/75	65.5%
4/2/75 to 4/1/76	58.5%
4/2/76 to 4/1/77	51.5%
4/2/77 to 4/1/78	49.0%
4/2/78 to 4/1/79	44.5%
4/2/79 to 4/1/80	38.0%
4/2/80 to 4/1/81	32.5%
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, 1998.

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, 1998	Percentage Increase Based on the 25% Floor
4/1/73	69.0%	44.0%
4/1/74	68.5%	43.5%
4/1/75	65.5%	40.5%
4/1/76	58.5%	33.5%
4/1/77	51.5%	26.5%
4/1/78	49.0%	24.0%
4/1/79	44.5%	19.5%
4/1/80	38.0%	13.0%
4/1/81	32.5%	7.5%

To illustrate the amount of supplemental benefits, we take for example, a member who retired January 1, 1973 and is currently receiving $1,000.00 per month in basic and COL benefits. This member's unused COLA is 69.0%.

This member would receive a 44.0% (69.0% - 25.0%) increase, or $440.00 ($1,000.00 * 44.0%) 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	876	$ 1,829,000	$ 11,879,000

A reserve to fund this benefit amounted to $11,065,000 as of June 30,1998. Based on the current retiree population eligible for this benefit, the additional amount needed to prefund this benefit is $814,000 ($11,879,000 – $11,065,000), as of June 30, 1998.

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, 1996 valuation, the Association used a three-year smoothed market value of assets for purposes of calculating the required employer contribution rates. Under this method, the realized and unrealized gains and losses are spread over three years. For this valuation, we recommend that this method be changed to a five-year smoothed market value basis. Under the recommended 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	$59,298	$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
Total	$312,407	$169,139	$308,454				$158,078

Total Additions = (a) – (b) + (c) + (g) — $609,800

3. Actuarial Value of Assets as of 6/30/98 = (1) + (2) — $1,392,965

The net market value of assets as of June 30, 1998 is $1,625,611,000. The difference between the actuarial value and the market value of assets, or $232,646,000, 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 $46 million to reflect the balance of *past* transfers made to the Cost of Living Reserve. Of this amount, $43 million is set aside for fiscal years 1998/99 to 2000/01 employer and employee contribution offsets, and $3 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 in developing employer contribution rates. These are the Supplemental COL, Retiree Health Insurance, and Undistributed Earnings reserves.

Special Reserve for Interest Fluctuation

The Special Reserve for Interest Fluctuation at market value is $16,256,000 as of June 30, 1998. 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% per annum to June 30, 1998, 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 12 years from June 30, 1998.

ACTUARIAL BALANCE SHEET AS OF JUNE 30, 1998	
Assets	
1. Actuarial value of assets	$ 1,647,935,000
2. Present value of future contributions by members	80,837,000
3. Present value of future employer contributions for normal cost	165,837,000
4. Present value of other future employer contributions (UAAL)	(98,769,000)
5. Total actuarial assets	$ 1,795,840,000
Liabilities	
6. Present value of retirement allowances payable to retired members and their survivors	$ 456,118,000
7. Present value of service retirement allowances payable to presently active members and their survivors	714,015,000
8. Present value of allowances payable to vested terminated members and their survivors	119,243,000
9. Present value of disability retirement allowances payable to presently active members and their survivors	48,840,000
10. Present value of death benefits payable on behalf of presently active members	11,560,000
11. Present value of members' contributions to be returned upon withdrawal	33,080,000
12. Accounts payable	4,802,000
13. Trades payable	250,168,000
14. Undistributed earnings	107,324,000
15. Retiree health insurance reserve	39,625,000
16. Supplemental COLA reserve	11,065,000
17. Total actuarial liabilities	$ 1,795,840,000

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%)

*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%

*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	01/01/98	8.00%	104%
Contra Costa	01/01/98	8.25%	88%
Fresno	**07/01/98**	**8.25%**	**106%**
Imperial	07/01/97	8.00%	80%
Kern	07/01/98	8.25%	98%
Los Angeles	07/01/97	8.00%	101%
Marin	07/01/97	8.00%	83%
Mendocino	07/01/98	8.00%	87%
Merced	07/01/97	8.00%	80%
Orange	01/01/98	8.00%	104%
Sacramento	07/01/97	8.00%	101%
San Bernardino	07/01/98	8.00%	116%
San Diego	07/01/97	8.25%	108%
San Joaquin	01/01/98	8.25%	105%
San Mateo	07/01/97	8.00%	83%
Santa Barbara	01/01/98	8.00%	92%
Sonoma	01/01/98	8.25%	100%
Stanislaus	07/01/97	8.00%	130%
Tulare	07/01/98	8.00%	102%
Ventura	07/01/97	8.25%	112%
Average		8.09%	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 12 years from the June 30, 1998 valuation date.

1.	Interest:	8.25% per annum.
2.	Interest Credited to Employee Accounts:	8.25% per annum.
3.	Inflation:	4.75% 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:	1983 Group Annuity Table for Males, set back four years.
	- Safety Members:	1983 Group Annuity Table for Males set back one year.
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 - 57 and 50 for Section 31676.12 and Section 31664, 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

  1/50 times final average salary per year of service.

- Benefit Adjustments

  Reduced for retirement before 57 and 50 for Section 31676.12 and Section 31664, respectively.

  Increased for retirement after 57 and 50 for Section 31676.12 and Section 31664, respectively.

4. DISABILITY RETIREMENT

- Non-service connected

  1.8% of final average salary per year of service, with a maximum of 33-1/3% if projected service is used (age 62 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, 1998

MALES

CURRENT AGE	YEARS OF SERVICE							
	0-4	5-9	10-14	15-19	20-24	25-29	30 & Over	TOTAL
Below 19	2	0	0	0	0	0	0	2
	16,511	0	0	0	0	0	0	16,511
20-24	36	0	0	0	0	0	0	36
	23,209	0	0	0	0	0	0	23,209
25-29	136	28	0	0	0	0	0	164
	29,757	28,961	0	0	0	0	0	29,621
30-34	109	71	8	0	0	0	0	188
	31,185	34,599	30,655	0	0	0	0	32,452
35-39	117	106	36	9	0	0	0	268
	33,345	39,135	39,762	35,145	0	0	0	36,558
40-44	98	94	57	52	18	0	0	319
	35,478	40,023	43,671	43,758	36,206	0	0	39,672
45-49	78	96	58	63	84	15	0	394
	35,928	39,995	43,727	46,853	47,697	49,863	0	42,854
50-54	47	71	40	38	98	64	15	373
	39,312	47,248	43,116	46,683	47,054	46,667	56,080	45,952
55-59	31	23	30	23	32	39	26	204
	42,408	48,020	43,700	41,692	48,730	48,193	49,523	46,154
60-64	6	11	7	4	8	5	12	53
	46,652	50,810	35,588	76,184	42,508	39,599	55,331	48,957
65-69	2	2	2	2	0	0	0	8
	49,427	33,774	25,220	24,895	0	0	0	33,329
70 & Over	1	1	0	1	0	0	0	3
	116,064	33,197	0	67,091	0	0	0	72,117
TOTAL	663	503	238	192	240	123	53	2,012
	33,412	40,032	42,173	45,302	46,537	47,253	52,694	40,158

SCHEDULE 3

AGE AND SERVICE DISTRIBUTION WITH ANNUAL AVERAGE SALARY
OF ACTIVE GENERAL MEMBERS
AS OF JUNE 30, 1998

FEMALES

CURRENT AGE	YEARS OF SERVICE							
	0-4	5-9	10-14	15-19	20-24	25-29	30 & Over	TOTAL
Below 19	2	0	0	0	0	0	0	2
	16,328	0	0	0	0	0	0	16,328
20-24	69	0	0	0	0	0	0	69
	21,995	0	0	0	0	0	0	21,995
25-29	244	44	0	0	0	0	0	288
	25,890	27,296	0	0	0	0	0	26,105
30-34	191	137	28	1	0	0	0	357
	29,955	30,791	28,674	31,148	0	0	0	30,179
35-39	184	170	82	34	1	0	0	471
	27,543	33,294	36,034	32,053	40,066	0	0	31,449
40-44	158	168	101	97	39	2	0	565
	28,109	33,091	35,791	36,695	35,110	31,733	0	32,934
45-49	152	172	129	81	64	32	2	632
	26,746	32,394	33,014	34,591	39,126	40,044	29,484	32,504
50-54	98	127	93	45	53	34	18	468
	29,890	32,864	34,092	36,636	42,227	39,396	42,119	34,739
55-59	48	53	44	32	33	14	13	237
	26,205	32,921	32,790	33,016	35,074	33,614	38,772	32,211
60-64	11	22	22	8	9	8	3	83
	29,545	34,060	28,797	29,539	29,332	35,055	59,921	32,149
65-69	0	5	4	3	0	1	0	13
	0	39,894	22,835	29,198	0	49,166	0	32,890
70 & Over	0	2	0	0	1	0	0	3
	0	54,585	0	0	113,480	0	0	74,217
TOTAL	1,157	900	503	301	200	91	36	3,188
	27,377	32,430	33,737	34,921	38,432	38,292	41,692	31,686

SCHEDULE 3

AGE AND SERVICE DISTRIBUTION WITH ANNUAL AVERAGE SALARY
OF ACTIVE SAFETY MEMBERS
AS OF JUNE 30, 1998

CURRENT AGE	YEARS OF SERVICE							
	0-4	5-9	10-14	15-19	20-24	25-29	30 & Over	TOTAL
Below 19	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
20-24	15	0	0	0	0	0	0	15
	28,300	0	0	0	0	0	0	28,300
25-29	106	14	0	0	0	0	0	120
	34,323	35,913	0	0	0	0	0	34,509
30-34	81	78	5	0	0	0	0	164
	34,585	42,195	41,954	0	0	0	0	38,429
35-39	32	63	34	13	0	0	0	142
	34,406	41,108	46,118	52,084	0	0	0	41,802
40-44	16	39	20	38	15	0	0	128
	35,927	43,641	47,924	51,112	57,434	0	0	47,180
45-49	10	36	8	27	36	17	0	134
	33,836	41,236	41,548	49,178	58,284	62,806	0	49,619
50-54	16	13	9	10	26	32	10	116
	41,195	39,654	39,049	47,084	57,228	62,465	64,617	52,844
55-59	4	8	3	0	7	7	1	30
	44,103	42,887	57,408	0	44,583	64,935	162,448	54,027
60-64	1	4	0	1	1	1	0	8
	47,606	40,833	0	35,698	35,698	60,551	0	42,861
65-69	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
70 & Over	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
TOTAL	281	255	79	89	85	57	11	857
	34,738	41,538	45,472	50,041	56,417	62,836	73,511	43,857

SCHEDULE 3

AVERAGE ANNUAL BENEFIT AND MEMBERSHIP DISTRIBUTION OF RETIRED GENERAL MEMBERS AS OF JUNE 30, 1998

MALES

CURRENT AGE	YEARS OF RETIREMENT							
	0-4	5-9	10-14	15-19	20-24	25-29	30 & Over	TOTAL
Below 45	3	4	0	0	0	0	0	7
	10,202	2,452	0	0	0	0	0	5,773
45-49	2	3	2	0	0	0	0	7
	14,474	12,242	11,723	0	0	0	0	12,731
50-54	53	1	1	3	1	0	0	59
	11,451	10,661	11,602	6,924	8,912	0	0	11,167
55-59	60	29	3	1	0	0	0	93
	18,257	10,083	10,989	13,712	0	0	0	15,425
60-64	85	59	39	3	2	0	0	188
	25,428	20,333	7,753	24,389	3,391	0	0	19,911
65-69	33	83	60	22	3	1	2	204
	16,899	22,322	14,229	7,777	18,219	1,719	3,922	17,154
70-74	8	37	75	43	10	4	2	179
	12,903	22,851	19,474	13,601	5,895	3,377	5,976	17,198
75-79	1	8	42	78	18	9	2	158
	974	8,401	17,198	17,061	7,360	4,746	2,075	14,561
80-84	0	1	7	35	36	6	0	85
	0	31,186	12,852	14,125	11,379	3,014	0	12,274
85 & Over	0	0	1	3	15	15	6	40
	0	0	16,385	11,592	11,277	6,738	3,531	8,564
TOTAL	245	225	230	188	85	35	12	1,020
	18,715	19,315	15,275	14,487	9,889	5,060	3,761	15,912

SCHEDULE 3

AVERAGE ANNUAL BENEFIT AND MEMBERSHIP DISTRIBUTION OF RETIRED GENERAL MEMBERS AS OF JUNE 30, 1998

FEMALES

CURRENT AGE	YEARS OF RETIREMENT							
	0-4	5-9	10-14	15-19	20-24	25-29	30 & Over	TOTAL
Below 45	4	3	4	0	0	0	0	11
	15,978	4,914	12,046	0	0	0	0	11,531
45-49	5	2	1	1	2	0	0	11
	6,890	11,913	25,093	26,534	8,959	0	0	11,620
50-54	118	4	1	2	1	1	0	127
	10,292	8,189	3,489	4,178	5,605	9,142	0	10,030
55-59	128	43	4	2	2	0	0	179
	11,900	9,095	13,105	6,170	9,745	0	0	11,165
60-64	101	71	35	6	3	3	0	219
	16,052	12,483	6,821	6,714	13,972	3,974	0	12,970
65-69	81	93	60	38	8	5	0	285
	14,344	12,928	9,813	6,922	9,909	4,307	0	11,638
70-74	16	79	117	56	25	10	1	304
	8,392	12,617	12,712	7,491	6,663	4,639	2,232	10,701
75-79	0	20	66	109	53	8	0	256
	0	14,057	13,037	10,734	5,999	2,387	0	10,346
80-84	0	2	7	59	86	28	6	188
	0	4,677	11,900	9,733	7,204	4,958	5,121	7,745
85 & Over	0	0	0	6	59	58	23	146
	0	0	0	8,406	5,913	4,553	4,084	5,187
TOTAL	453	317	295	279	239	113	30	1,726
	12,701	12,108	11,484	9,193	6,766	4,522	4,230	10,312

SCHEDULE 3

AVERAGE ANNUAL BENEFIT AND MEMBERSHIP DISTRIBUTION OF RETIRED SAFETY MEMBERS AS OF JUNE 30, 1998

TOTAL

CURRENT AGE	YEARS OF RETIREMENT							
	0-4	5-9	10-14	15-19	20-24	25-29	30 & Over	TOTAL
Below 45	5	5	2	1	0	0	0	13
	19,593	9,821	22,905	19,606	0	0	0	16,345
45-49	11	8	3	0	0	0	0	22
	14,241	20,244	18,446	0	0	0	0	16,997
50-54	20	19	7	0	1	0	0	47
	21,347	15,566	16,375	0	13,144	0	0	18,095
55-59	19	12	8	2	1	0	0	42
	30,627	19,087	14,198	14,820	5,294	0	0	22,845
60-64	9	17	8	4	2	0	0	40
	26,911	28,607	15,145	12,644	16,594	0	0	23,336
65-69	4	3	21	15	3	1	0	47
	15,530	22,093	27,996	14,089	14,991	5,766	0	20,817
70-74	1	0	4	22	13	3	0	43
	3,400	0	61,540	22,870	13,604	9,228	0	22,261
75-79	0	0	0	8	8	10	0	26
	0	0	0	24,197	18,786	9,399	0	16,841
80-84	0	0	0	0	8	5	0	13
	0	0	0	0	11,673	14,897	0	12,913
85 & Over	0	0	0	0	0	5	0	5
	0	0	0	0	0	9,747	0	9,747
TOTAL	69	64	53	52	36	24	0	298
	22,771	20,132	24,238	19,382	14,365	10,444	0	19,865

SCHEDULE 4

SUMMARY OF ANNUAL RETIREMENT ALLOWANCES
As of June 30, 1998

GENERAL MEMBERS

		Number		Annual Allowance
Service				
	Males	887	$	15,175,025
	Females	1,374		14,896,472
	Total	2,261	$	30,071,497
Disability				
	Males	69	$	715,130
	Females	75		625,286
	Total	144	$	1,340,416
Beneficiaries				
	Males	64	$	351,571
	Females	277		2,289,197
	Total	341	$	2,640,768
Total		2,746	$	34,052,681

SAFETY MEMBERS

		Number		Annual Allowance
Service				
	Males	170	$	3,878,414
	Females	16		196,095
	Total	186	$	4,074,509
Disability				
	Males	50	$	1,059,475
	Females	9		135,378
	Total	59	$	1,194,853
Beneficiaries				
	Males	3	$	14,681
	Females	50		635,835
	Total	53	$	650,516
Total		298	$	5,919,878

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%	0.94%	1.41%	38	2.37%	3.55%	1.21%	1.81%
17	1.85	2.78	0.95	1.42	39	2.40	3.60	1.23	1.84
18	1.86	2.79	0.95	1.42	40	2.44	3.66	1.25	1.87
19	1.87	2.80	0.95	1.43	41	2.47	3.71	1.26	1.89
20	1.88	2.82	0.96	1.44	42	2.51	3.77	1.28	1.92
21	1.89	2.84	0.97	1.45	43	2.55	3.83	1.30	1.95
22	1.91	2.86	0.97	1.46	44	2.59	3.88	1.32	1.98
23	1.92	2.88	0.98	1.47	45	2.63	3.94	1.34	2.01
24	1.94	2.91	0.99	1.49	46	2.67	4.00	1.36	2.04
25	1.96	2.94	1.00	1.50	47	2.71	4.06	1.38	2.07
26	1.99	2.98	1.01	1.52	48	2.75	4.12	1.40	2.10
27	2.01	3.01	1.03	1.54	49	2.79	4.18	1.42	2.13
28	2.03	3.05	1.04	1.56	50	2.83	4.24	1.44	2.16
29	2.06	3.09	1.05	1.58	51	2.87	4.31	1.47	2.20
30	2.09	3.14	1.07	1.60	52	2.91	4.37	1.49	2.23
31	2.12	3.18	1.08	1.62	53	2.95	4.43	1.51	2.26
32	2.15	3.23	1.10	1.65	54	2.99	4.49	1.53	2.29
33	2.19	3.28	1.11	1.67	55	3.04	4.56	1.55	2.33
34	2.22	3.33	1.13	1.70	56	3.08	4.62	1.57	2.36
35	2.26	3.39	1.15	1.73	57	3.13	4.69	1.59	2.39
36	2.29	3.44	1.17	1.76	58	3.17	4.76	1.62	2.43
37	2.33	3.49	1.19	1.78	59 / +	3.21	4.82	1.64	2.46

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)

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
18	2.32%	3.48%	1.19%	1.78%	34	2.81%	4.21%	1.43%	2.15%
19	2.34	3.51	1.19	1.79	35	2.85	4.27	1.45	2.18
20	2.36	3.54	1.21	1.81	36	2.89	4.33	1.47	2.21
21	2.39	3.58	1.22	1.83	37	2.93	4.40	1.50	2.25
22	2.41	3.62	1.23	1.85	38	2.97	4.46	1.52	2.28
23	2.44	3.66	1.25	1.87	39	3.02	4.53	1.54	2.31
24	2.47	3.70	1.26	1.89	40	3.07	4.60	1.57	2.35
25	2.49	3.74	1.27	1.91	41	3.11	4.66	1.59	2.38
26	2.53	3.79	1.29	1.93	42	3.15	4.73	1.61	2.41
27	2.56	3 84	1.31	1.96	43	3.20	4.80	1.63	2.45
28	2.59	3.88	1.32	1.98	44	3.25	4.87	1.66	2.49
29	2.62	3.93	1.34	2.01	45	3.29	4.94	1.68	2.52
30	2.66	3.99	1.36	2.04	46	3.34	5.01	1.71	2.56
31	2.69	4.04	1.37	2.06	47	3.39	5.08	1.73	2.59
32	2.73	4.10	1.39	2.09	48	3.43	5.15	1.75	2.63
33	2.77	4.15	1.41	2.12	49 / +	3.48	5.22	1.77	2.66

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)

Recommended Rates - Before Transfer

	BASIC		COL			BASIC		COL	
Entry Age	First $350.00	Over $350.00	First $350.00	Over $350.00	Entry Age	First $350.00	Over $350.00	First $350.00	Over $350.00
16	1.85%	2.77%	1.03%	1.54%	38	2.37%	3.55%	1.31	1.97%
17	1.85	2.78	1.03	1.54	39	2.40	3.60	1.33	2.00
18	1.86	2.79	1.03	1.55	40	2.44	3.66	1.35	2.03
19	1.87	2.80	1.03	1.55	41	2.47	3.71	1.37	2.06
20	1.88	2.82	1.04	1.56	42	2.51	3.77	1.39	2.09
21	1.89	2.84	1.05	1.57	43	2.55	3.83	1.41	2.12
22	1.91	2.86	1.06	1.59	44	2.59	3.88	1.43	2.15
23	1.92	2.88	1.07	1.60	45	2.63	3.94	1.45	2.18
24	1.94	2.91	1.07	1.61	46	2.67	4.00	1.48	2.22
25	1.96	2.94	1.09	1.63	47	2.71	4.06	1.50	2.25
26	1.99	2.98	1.10	1.65	48	2.75	4.12	1.52	2.28
27	2.01	3.01	1.11	1.67	49	2.79	4.18	1.55	2.32
28	2.03	3.05	1.13	1.69	50	2.83	4.24	1.57	2.35
29	2.06	3.09	1.14	1.71	51	2.87	4.31	1.59	2.39
30	2.09	3.14	1.16	1.74	52	2.91	4.37	1.61	2.42
31	2.12	3.18	1.17	1.76	53	2.95	4.43	1.64	2.46
32	2.15	3.23	1.19	1.79	54	2.99	4.49	1.66	2.49
33	2.19	3.28	1.21	1.82	55	3.04	4.56	1.69	2.53
34	2.22	3.33	1.23	1.85	56	3.08	4.62	1.71	2.56
35	2.26	3.39	1.25	1.88	57	3.13	4.69	1.73	2.60
36	2.29	3.44	1.27	1.91	58	3.17	4.76	1.76	2.64
37	2.33	3.49	1.29	1.94	59 / +	3.21	4.82	1.78	2.67

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)

Recommended 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
18	2.32%	3.48%	1.29%	1.93%	34	2.81%	4.21%	1.55%	2.33%
19	2.34	3.51	1.30	1.95	35	2.85	4.27	1.58	2.37
20	2.36	3.54	1.31	1.96	36	2.89	4.33	1.60	2.40
21	2.39	3.58	1.33	1.99	37	2.93	4.40	1.63	2.44
22	2.41	3.62	1.34	2.01	38	2.97	4.46	1.65	2.47
23	2.44	3.66	1.35	2.03	39	3.02	4.53	1.67	2.51
24	2.47	3.70	1.37	2.05	40	3.07	4.60	1.70	2.55
25	2.49	3.74	1.38	2.07	41	3.11	4.66	1.72	2.58
26	2.53	3.79	1.40	2.10	42	3.15	4.73	1.75	2.62
27	2.56	3.84	1.42	2.13	43	3.20	4.80	1.77	2.66
28	2.59	3.88	1.43	2.15	44	3.25	4.87	1.80	2.70
29	2.62	3.93	1.45	2.18	45	3.29	4.94	1.83	2.74
30	2.66	3.99	1.47	2.21	46	3.34	5.01	1.85	2.78
31	2.69	4.04	1.49	2.24	47	3.39	5.08	1.88	2.82
32	2.73	4.10	1.51	2.27	48	3.43	5.15	1.91	2.86
33	2.77	4.15	1.53	2.30	49 / +	3.48	5.22	1.93	2.89

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

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	0.16000	0.00020	0.00000	0.00000	0.00000	0.00010	0.00005	0.00045
21	0.16000	0.00020	0.00000	0.00000	0.00000	0.00010	0.00005	0.00045
22	0.16000	0.00020	0.00000	0.00000	0.00000	0.00010	0.00005	0.00090
23	0.15500	0.00020	0.00000	0.00000	0.00000	0.00010	0.00005	0.00135
24	0.15500	0.00020	0.00000	0.00000	0.00000	0.00010	0.00005	0.00180
25	0.15500	0.00030	0.00007	0.00000	0.00013	0.00010	0.00010	0.00225
26	0.15500	0.00030	0.00007	0.00000	0.00013	0.00010	0.00010	0.00270
27	0.15000	0.00030	0.00007	0.00000	0.00013	0.00010	0.00010	0.00360
28	0.15000	0.00030	0.00007	0.00000	0.00013	0.00010	0.00010	0.00450
29	0.14500	0.00030	0.00007	0.00000	0.00013	0.00010	0.00010	0.00540
30	0.13500	0.00040	0.00007	0.00000	0.00013	0.00010	0.00010	0.00630
31	0.12000	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	0.17000	0.00010	0.00000	0.00000	0.00000	0.00000	0.00010	0.00270
21	0.17000	0.00010	0.00000	0.00000	0.00000	0.00000	0.00010	0.00270
22	0.16500	0.00010	0.00000	0.00000	0.00000	0.00000	0.00010	0.00270
23	0.16500	0.00010	0.00000	0.00000	0.00000	0.00000	0.00010	0.00270
24	0.16500	0.00010	0.00000	0.00000	0.00000	0.00000	0.00010	0.00450
25	0.16500	0.00020	0.00010	0.00000	0.00008	0.00000	0.00020	0.00450
26	0.16500	0.00020	0.00010	0.00000	0.00008	0.00000	0.00020	0.00450
27	0.16000	0.00020	0.00010	0.00000	0.00008	0.00000	0.00020	0.00450
28	0.16000	0.00020	0.00010	0.00000	0.00008	0.00000	0.00020	0.00450
29	0.16000	0.00030	0.00010	0.00000	0.00008	0.00000	0.00020	0.00450
30	0.15000	0.00030	0.00010	0.00000	0.00008	0.00000	0.00020	0.00450
31	0.13500	0.00030	0.00010	0.00000	0.00008	0.00000	0.00020	0.00450
32	0.12000	0.00030	0.00010	0.00000	0.00008	0.00000	0.00020	0.00450
33	0.11000	0.00040	0.00010	0.00000	0.00008	0.00000	0.00020	0.00450
34	0.10000	0.00040	0.00010	0.00000	0.00008	0.00000	0.00020	0.00900
35	0.09000	0.00040	0.00020	0.00000	0.00008	0.00000	0.00030	0.01620
36	0.08000	0.00050	0.00020	0.00000	0.00008	0.00000	0.00030	0.01980
37	0.07000	0.00050	0.00020	0.00000	0.00008	0.00000	0.00030	0.01980
38	0.06500	0.00050	0.00030	0.00000	0.00008	0.00000	0.00030	0.01800
39	0.06000	0.00050	0.00030	0.00000	0.00008	0.00000	0.00030	0.01710
40	0.05500	0.00060	0.00030	0.00000	0.00008	0.00000	0.00030	0.01665
41	0.04800	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	0.00040	0.01575
44	0.03500	0.00070	0.00050	0.00000	0.00008	0.00000	0.00040	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	0.00150	0.00450
60	0.01300	0.00180	0.00230	0.14000	0.00045	0.00000	0.00170	0.00450
61	0.01300	0.00190	0.00250	0.10000	0.00045	0.00000	0.00190	0.00450
62	0.01300	0.00200	0.00270	0.30000	0.00052	0.00000	0.00210	0.00450
63	0.01300	0.00210	0.00290	0.12500	0.00052	0.00000	0.00230	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	0.00048	0.00100
21	0.12000	0.00015	0.00000	0.00000	0.00000	0.00015	0.00048	0.00110
22	0.11000	0.00015	0.00000	0.00000	0.00000	0.00015	0.00048	0.00120
23	0.10000	0.00015	0.00000	0.00000	0.00000	0.00015	0.00056	0.00130
24	0.09500	0.00015	0.00000	0.00000	0.00000	0.00015	0.00056	0.00140
25	0.09000	0.00022	0.00020	0.00000	0.00008	0.00022	0.00064	0.00200
26	0.08200	0.00022	0.00020	0.00000	0.00008	0.00022	0.00072	0.00300
27	0.07400	0.00022	0.00030	0.00000	0.00015	0.00022	0.00080	0.00500
28	0.07100	0.00022	0.00030	0.00000	0.00015	0.00022	0.00088	0.01000
29	0.06800	0.00022	0.00030	0.00000	0.00015	0.00022	0.00096	0.01700
30	0.06400	0.00030	0.00030	0.00000	0.00015	0.00030	0.00104	0.02500
31	0.06000	0.00030	0.00040	0.00000	0.00015	0.00030	0.00112	0.03400
32	0.05600	0.00030	0.00040	0.00000	0.00015	0.00030	0.00128	0.03000
33	0.05100	0.00030	0.00040	0.00000	0.00015	0.00030	0.00144	0.02700
34	0.04600	0.00030	0.00050	0.00000	0.00015	0.00030	0.00168	0.02400
35	0.04100	0.00038	0.00060	0.00000	0.00015	0.00038	0.00184	0.02200
36	0.03600	0.00038	0.00060	0.00000	0.00015	0.00038	0.00200	0.02000
37	0.03100	0.00038	0.00070	0.00000	0.00015	0.00038	0.00224	0.01800
38	0.02800	0.00038	0.00080	0.00000	0.00015	0.00038	0.00248	0.01600
39	0.02500	0.00038	0.00090	0.00000	0.00015	0.00038	0.00280	0.01400
40	0.02200	0.00045	0.00100	0.00000	0.00022	0.00045	0.00312	0.01200
41	0.01900	0.00045	0.00100	0.00000	0.00022	0.00045	0.00344	0.01000
42	0.01500	0.00045	0.00110	0.00000	0.00022	0.00045	0.00376	0.00800
43	0.01200	0.00052	0.00120	0.00000	0.00022	0.00052	0.00416	0.00600
44	0.01000	0.00052	0.00120	0.00000	0.00022	0.00052	0.00464	0.00400
45	0.00900	0.00060	0.00130	0.03000	0.00030	0.00060	0.00512	0.00300
46	0.00800	0.00060	0.00140	0.02000	0.00030	0.00060	0.00568	0.00200
47	0.00700	0.00068	0.00140	0.02000	0.00038	0.00068	0.00632	0.00100
48	0.00600	0.00068	0.00150	0.02000	0.00045	0.00068	0.00704	0.00080
49	0.00500	0.00075	0.00160	0.03000	0.00052	0.00075	0.00776	0.00050
50	0.00500	0.00075	0.00160	0.07000	0.00060	0.00075	0.00848	0.00000
51	0.00400	0.00082	0.00170	0.05000	0.00068	0.00082	0.00920	0.00000
52	0.00400	0.00082	0.00180	0.05000	0.00075	0.00090	0.01000	0.00000
53	0.00300	0.00090	0.00190	0.07000	0.00082	0.00097	0.01080	0.00000
54	0.00000	0.00090	0.00200	0.09000	0.00090	0.00097	0.01160	0.00000
55	0.00000	0.00097	0.00200	0.15000	0.00097	0.00105	0.01240	0.00000
56	0.00000	0.00097	0.00210	0.15000	0.00105	0.00112	0.01320	0.00000
57	0.00000	0.00105	0.00220	0.15000	0.00112	0.00120	0.01400	0.00000
58	0.00000	0.00105	0.00220	0.30000	0.00120	0.00127	0.01480	0.00000
59	0.00000	0.00112	0.00230	0.30000	0.00127	0.00135	0.01560	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	0.00045
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
(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	0.00010	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
(Recommended 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 7

YEARS OF LIFE EXPECTANCY AFTER SERVICE RETIREMENT

	General				General		
Age	Male	Female	Safety	Age	Male	Female	Safety
50	29.18	34.92	30.08	81	7.21	9.63	7.64
51	28.30	33.97	29.18	82	6.81	9.09	7.21
52	27.42	33.03	28.30	83	6.43	8.57	6.81
53	26.55	32.10	27.42	84	6.07	8.07	6.43
54	25.68	31.16	26.55	85	5.73	7.58	6.07
55	24.83	30.23	25.68	86	5.41	7.11	5.73
56	23.98	29.31	24.83	87	5.10	6.66	5.41
57	23.13	28.39	23.98	88	4.82	6.23	5.10
58	22.29	27.48	23.13	89	4.54	5.81	4.82
59	21.46	26.57	22.29	90	4.28	5.41	4.54
60	20.64	25.67	21.46	91	4.04	5.02	4.28
61	19.83	24.78	20.64	92	3.80	4.66	4.04
62	19.02	23.89	19.83	93	3.58	4.31	3.80
63	18.23	23.02	19.02	94	3.37	3.98	3.58
64	17.45	22.15	18.23	95	3.16	3.67	3.37
65	16.69	21.29	17.45	96	2.98	3.37	3.16
66	15.95	20.43	16.69	97	2.80	3.10	2.98
67	15.23	19.59	15.95	98	2.62	2.84	2.80
68	14.52	18.76	15.23	99	2.45	2.60	2.62
69	13.84	17.94	14.52	100	2.28	2.36	2.45
70	13.18	17.13	13.84	101	2.11	2.14	2.28
71	12.54	16.34	13.18	102	1.95	1.94	2.11
72	11.92	15.57	12.54	103	1.78	1.74	1.95
73	11.31	14.81	11.92	104	1.61	1.55	1.78
74	10.72	14.08	11.31	105	1.43	1.37	1.61
75	10.15	13.38	10.72	106	1.26	1.19	1.43
76	9.60	12.69	10.15	107	1.09	1.03	1.26
77	9.08	12.03	9.60	108	.92	.87	1.09
78	8.57	11.40	9.08	109	.74	.71	.92
79	8.10	10.79	8.57	110	.50	.50	.74
80	7.64	10.20	8.10	111	--	--	--

1983 GA (x, y) for General Members

1983 GA (x - 1) 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

Age	GENERAL		SAFETY		Age	GENERAL		SAFETY	
	Study 1 & 2	Study 3	Study 1 & 2	Study 3		Study 1 & 2	Study 3	Study 1 & 2	Study 3
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 & 2: Salary scale assumption reflects 4.75% for inflation and graded merit and longevity.

Study 3: 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, 1998 AND 1997
(amounts expressed in thousands)

	1998	1997
ASSETS:		
Cash and cash equivalents	$ 71,527	$ 71,912
Securities lending short-term investment pool	22	125,711
Total cash and cash equivalents (Note 3)	71,549	197,623
Receivables:		
Investment trades receivable (Note 4)	226,498	133,192
Interest and dividends receivable	8,255	6,746
Note receivable (Note 5)	544	3,211
Contributions and other receivables	3,645	2,763
Securities lending receivable	30	588
Total receivables	238,972	146,500
Investments, at fair value (Note 3):		
Domestic stocks	698,831	575,633
Domestic bonds	329,080	192,180
International stocks	280,427	146,476
Mortgage backed securities	122,567	112,723
Private markets	77,696	66,821
Global bonds	61,169	68,861
Total investments	1,569,770	1,162,694
Fixed assets, net of accumulated depreciation of $53 and $44, respectively	290	243
Other assets	--	21
Total assets	1,880,581	1,507,081
LIABILITIES:		
Investment trades payable (Note 4)	250,168	165,566
Cash collateral payable for securities lending (Note 3)	22	125,711
Accounts payable	4,755	2,074
Securities lending bank and broker fees	25	529
Total liabilities	254,970	293,880
NET ASSETS HELD IN TRUST FOR PENSION BENEFITS (A schedule of funding progress is presented on page 22)	$ 1,625,611	$ 1,213,201

See accompanying notes to financial statements.