SAN JOSE FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM

ACTUARIAL REPORT

Prepared for the
Board of Administration
as of
July 1, 1993

W F CORROON

W F Corroon
50 Fremont Street
24th Floor
San Francisco, CA
Zip Code: 94105-2236
Telephone 415-979-0600
Fax 415-979-0177

May 13, 1994

Board of Administration
Federated City Employees'
Retirement System
801 North First Street, Room 216
San Jose, California 95110

Ladies and Gentlemen:

Pursuant to our agreement with you, we have completed an actuarial valuation and experience analysis of the Federated City Employees' Retirement System as of July 1, 1993. We are pleased to submit our report on the results of the valuation.

The study was based upon employee data supplied by the Retirement Office.

This report describes in detail both the results and the recommendations arising from the study.

We look forward to discussing this report with the Board and wish to express our appreciation for the cooperation extended to us by the Administrator of the System and the members of his staff during the course of this survey.

Respectfully submitted,

Rick G. Mayo, E.A., M.A.A.A.
Senior Vice President and Actuary

RGM:abd

Enclosure

SAN JOSE FEDERATED CITY

JULY 1, 1993

TABLE OF CONTENTS

SECTION

1

SUMMARY

(I) SUMMARY OF RESULTS AS OF JULY 1, 1993

Demographic Data

Actives:	
Number	3,360
Payroll	$ 145,781,000
Inactives:	
Number	170
Retirees:	
Number	1,497
Annual Pension Roll*	$ 25,642,000

*Assets***

Book Value	$ 523,887,000
Market Value	568,030,000
Adjusted Book Value	525,512,000

Funded Status

GASB #5 Pension Benefit Obligation (PBO)	$ 629,713,000
Ratio of Net Assets at Book to PBO	81%

Contribution Rates

	City	Employees
Current Contributions:		
Rates	15.59%	6.88%
Annual Amount based on July 1, 1993 Payroll	$ 22,727,000	$ 10,030,000
Recommended Contributions:		
Rates	18.43%	8.40%
Annual Amount based on July 1, 1993 Payroll	$ 26,867,000	$ 12,246,000

* Includes permanent cost of living.
** Unaudited.

(ii) SUMMARY OF ASSUMPTIONS AND FUNDING METHODS

The funding method and the recommended actuarial assumptions are shown below:

Agrees with 1994 annual report (note 6 in finl stmt section)

Assumptions

Valuation Interest Rate	8.25%
Post-Retirement Mortality	
(a) Service	
Males	1983 Group Annuity Mortality Table for Males
Females	1983 Group Annuity Mortality Table for Females, set forward one year
(b) Disability	1981 Disability Mortality Table
Pre-Retirement Mortality	Based upon the 7/1/93 Experience Analysis
Withdrawal Rates	Based upon the 7/1/93 Experience Analysis
Disability Rates	Based upon the 7/1/93 Experience Analysis
Service Retirement Rates	Based upon the 7/1/93 Experience Analysis
Salary Scale	Total increases of 6.00% per year (5.00% inflation plus merit and longevity scale based on age)
Assets	At Adjusted Book Value

1994 annual report (note 6 in finl stmt section), lists salary increase of 5%

Funding Methods

The City's liability for pension benefits is being funded on a modified Entry Age Normal Method with an Unfunded Actuarial Accrued Liability (UAAL). The amortization period for the Supplemental Present Value is 26 years from the July 1, 1993 valuation date except for the portion due to the 1987 Early Retirement Incentive Program which is being funded over 24 years from July 1, 1993.

5

Liabilities for medical and dental benefits are partially funded. Anticipated costs for the next 15 years are amortized on a level percentage of the next 15-year anticipated payroll.

SECTION

II

STATISTICAL INFORMATION

(i) SUMMARY OF STATISTICAL INFORMATION

Our results for the July 1, 1993 actuarial valuation of the System are based on the following data. For comparison purposes, we also show figures as of July 1, 1991.

	July 1, 1991	July 1, 1993	Percentage Increase (Decrease) During the Two-Year Period
Active Members			
Number	3,528	3,360	(5%)
Total annual payroll *	$ 135,849,000	$ 145,781,000	7%
Average monthly salary *	$ 3,209	$ 3,616	13%
Retired Members			
Number	1,220	1,497	23%
Total annual pension roll (basic)	$ 14,329,000	$ 21,223,000	48%
Average monthly allowance (basic)	$ 979	$ 1,181	21%
Total annual pension roll (basic and COL)	$ 17,353,000	$ 25,642,000	48%
Average monthly allowance (basic and COL)	$ 1,185	$ 1,427	20%
Inactive Vested Members			
Number	146	170	16%
Assets			
Basic Retirement Fund	$ 317,904,000	$ 397,488,000	25%
Cost of Living Fund	99,203,000	126,399,000	27%
Total Fund	$ 417,107,000	$ 523,887,000	26%

* The salary for part-time employees as of July 1, 1993 reflects the actual pay rate multiplied by the average of 34.29 hours worked per biweekly pay period. An average of 24.03 hours was used in 1991.

Exhibits 1 - 4 on the following pages show more detail of the active and retired data.

EXHIBIT 1

ANNUAL SALARY* AND MEMBERSHIP DISTRIBUTION OF ACTIVE MEMBERS

MALES

As of June 30, 1993

PRESENT AGE	YEARS OF SERVICE							
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 & OVER	TOTAL
BELOW 20								
20 -24	32 928,784							32 928,784
25 - 29	106 3,758,357	39 1,423,379						145 5,181,736
30 - 34	159 6,357,412	112 4,861,678	38 1,598,796					309 12,817,886
35 - 39	110 5,091,616	94 4,542,446	80 3,573,279	39 1,627,993				323 14,835,334
40 - 44	96 4,300,526	107 5,240,709	67 3,402,507	72 3,132,960	29 1,387,695	3 134,451		374 17,598,848
45 - 49	74 3,489,723	63 3,175,184	53 2,454,689	73 3,896,318	77 4,105,432	13 693,308		353 17,814,654
50 - 54	32 1,665,624	41 2,262,853	30 1,501,737	34 1,762,336	44 2,368,266	18 1,057,804	2 120,265	201 10,738,885
55 - 59	18 865,906	26 1,242,257	16 819,790	18 874,800	6 298,938	4 260,187	2 85,488	90 4,447,366
60 - 64	6 199,576	13 615,411	9 473,365	10 433,159	7 333,528	1 49,254		46 2,104,293
65 - 69	1 83,845	4 214,490	1 31,450	3 132,079				9 461,864
70 & OVER	2 74,610			1 50,003			1 54,038	4 178,651
TOTAL	636 26,815,979	499 23,578,407	294 13,855,613	250 11,909,648	163 8,493,859	39 2,195,004	5 259,791	1,886 87,108,301

Average Age	41.25
Average Service	9.50
Average Entry Age	31.75

* The salary for part-time members reflects the actual rate of pay.

EXHIBIT 2

ANNUAL SALARY* AND MEMBERSHIP DISTRIBUTION OF ACTIVE MEMBERS

FEMALES

As of June 30, 1993

PRESENT AGE	YEARS OF SERVICE							
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 & OVER	TOTAL
BELOW 20								
20 -24	21 709,113							21 709,113
25 - 29	123 4,386,805	30 1,036,776						153 5,423,581
30 - 34	137 5,527,409	75 2,759,698	22 868,045					234 9,155,152
35 - 39	109 4,388,370	81 3,394,800	41 1,571,527	11 446,284				242 9,800,981
40 - 44	91 3,458,957	87 3,660,053	34 1,424,348	52 2,191,729	15 597,097			279 11,332,184
45 - 49	57 2,301,233	78 3,303,717	43 1,781,610	37 1,812,220	26 1,296,946	4 143,769		245 10,639,495
50 - 54	29 1,065,854	54 2,126,462	35 1,471,622	20 890,615	15 664,504	7 337,980	3 125,321	163 6,682,358
55 - 59	21 748,364	19 724,923	17 655,388	9 359,486	6 296,401	2 101,982	1 39,541	75 2,926,085
60 - 64	8 284,669	12 425,940	6 232,481	11 353,981	1 40,331		3 133,973	41 1,471,375
65 - 69	2 61,110	2 75,233	5 184,703	6 114,497				15 435,543
70 & OVER		1 13,685	1 40,934	4 42,044				6 96,663
TOTAL	598 22,931,884	439 17,521,287	204 8,230,658	150 6,210,856	63 2,895,279	13 583,731	7 298,835	1,474 58,672,530

Average Age	41.25
Average Service	8.00
Average Entry Age	33.25

* The salary for part-time members reflects the actual rate of pay.

EXHIBIT 3

SUMMARY OF MONTHLY ALLOWANCES

As of June 30, 1993

Option	Number	MONTHLY ALLOWANCE Basic	Cost of Living	Total
		SERVICE RETIREMENT		
1	46	$ 19,084	$ 17,039	$ 36,123
2	33	12,706	6,098	18,804
3	11	4,289	4,763	9,052
4	3	2,958	4,327	7,285
5	1,069	1,511,080	258,015	1,769,095
8	0	0	0	0
9	22	5,586	6,235	11,821
Total	1,184	$ 1,555,703	$ 296,477	$ 1,852,180
		DISABILITY		
1	3	$ 1,825	$ 753	$ 2,578
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	108	97,305	26,389	123,694
8	0	0	0	0
9	7	1,967	2,504	4,471
Total	118	$ 101,097	$ 29,646	$ 130,743
		BENEFICIARY		
Total	195	$ 111,773	$ 42,138	$ 153,911
Grand Total	1,497	$ 1,768,573	$ 368,261	$ 2,136,834

EXHIBIT 4

ANNUAL BENEFIT AND MEMBERSHIP DISTRIBUTION OF RETIRED MEMBERS AND SURVIVORS

MALES

As of June 30, 1993

PRESENT AGE	YEARS OF RETIREMENT							
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 & OVER	TOTAL
BELOW 45	4 37,685	1 16,158	3 20,515			1 8,700		9 83,058
45 - 49	2 27,249	4 56,182	2 13,555	1 7,788				9 104,774
50 - 54	54 1,924,044	6 165,602	2 25,522	1 6,719				63 2,121,887
55 - 59	112 2,696,865	42 1,095,163	3 34,325	2 16,281				159 3,842,634
60 - 64	62 1,561,175	112 2,397,995	5 102,274	1 7,447				180 4,068,891
65 - 69	52 1,098,065	58 1,280,401	79 1,401,001	8 151,906				197 3,931,373
70 - 74	11 226,903	31 679,812	61 1,109,537	47 499,226	2 14,544			152 2,530,022
75 - 79	4 26,386	9 203,663	38 529,577	29 495,389	7 90,122			87 1,345,137
80 - 84	1 11,018		5 35,860	13 168,796	11 166,187	6 44,495		36 426,356
85 - 89			1 1,320		1 10,264	2 38,336		4 49,920
90 & OVER						1 36,362		1 36,362
TOTAL	302 7,609,390	263 5,894,976	199 3,273,486	102 1,353,552	21 281,117	10 127,893		897 18,540,414

Average Age	65.00
Average Years Retired	8.00
Average Retirement Age	57.00

EXHIBIT 5

ANNUAL BENEFIT AND MEMBERSHIP DISTRIBUTION OF RETIRED MEMBERS AND SURVIVORS

FEMALES

As of June 30, 1993

PRESENT AGE	YEARS OF RETIREMENT							
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 & OVER	TOTAL
BELOW 45	6 73,371	4 48,251	1 15,890					11 137,512
45 - 49	5 66,460		1 4,880	1 14,380	1 5,312			8 91,032
50 - 54	18 415,309	6 92,078	1 8,151	3 20,739				28 536,277
55 - 59	55 880,087	20 310,222	4 37,328	2 20,160				81 1,247,797
60 - 64	59 862,402	44 613,839	6 47,619	2 11,038	1 7,249			112 1,542,147
65 - 69	50 670,073	47 650,641	37 269,864	4 26,673	3 23,259			141 1,640,510
70 - 74	24 303,900	39 394,105	23 166,350	33 267,628	1 5,186			120 1,137,169
75 - 79	16 106,160	10 110,189	15 111,464	18 125,639	6 42,605	3 13,169		68 509,226
80 - 84	3 13,836	3 27,785	2 6,632	5 32,940	6 59,750		1 3,429	20 144,372
85 - 89	1 11,724	1 4,345		1 3,653	3 32,697	2 38,331		8 90,750
90 & OVER		1 3,673				1 14,104	1 7,015	3 24,792
TOTAL	237 3,403,322	175 2,255,128	90 668,178	69 522,850	21 176,058	6 65,604	2 10,444	600 7,101,584

Average Age	66.25
Average Years Retired	7.50
Average Retirement Age	58.75

SECTION

III

EXPERIENCE ANALYSIS

(i) NONECONOMIC ASSUMPTIONS

Probabilities of Separation from Service Prior to Retirement

An analysis was made, based upon each member's sex and attained age as of the valuation date, to determine the probability of members leaving the System because of nonvested withdrawal, deferred retirement, service retirement, disability retirement and death.

First, we looked at the actual experience that took place during the 2-year investigation period, July 1, 1991 through June 30, 1993, and the 4-year period ended June 30, 1993 and compared it to expected experience. Then changes were made to the probabilities of separation used in the last valuation, to more closely reflect the actual experience.

The findings and adjustments made with regard to these rates are discussed in the following paragraphs.

Nonvested Withdrawal

Our study showed that the actual numbers of nonvested withdrawals for both males and females were less than expected, as shown below.

	(2 years) July 1, 1991 - June 30, 1993			(4 years) July 1, 1989 - June 30, 1993		
	Actual	Expected	A/E* Ratio	Actual	Expected	A/E* Ratio
Males	87	144.1	60%	245	293.3	84%
Females	97	170.9	57%	269	329.1	82%

*Ratio of actual to expected terminations (Under 100% indicates fewer terminations than expected. Over 100% indicates more terminations than expected.)

Rates of nonvested withdrawal were decreased by approximately 20% to reflect this experience. Based on the new rates, the A/E ratios will increase to 74% for males and 69% for females, for the current period. Barring any other changes, a decrease in the expected number of withdrawals generally increases System costs.

Deferred Retirement

Our study showed that the actual numbers of deferred retirements for both males and females were higher than expected, as shown below.

	(2 years) July 1, 1991 - June 30, 1993			(4 years) July 1, 1989 - June 30, 1993		
	Actual	Expected	A/E Ratio	Actual	Expected	A/E Ratio
Males	23	21.4	107%	45	41.2	109%
Females	24	19.9	121%	42	37.5	112%

No changes were made to the rates of deferred retirement for males while the rates for females were increased slightly to reflect this experience. The new A/E ratio for females is 117%. Barring any other changes, an increase in the expected number of deferred retirements generally increases System costs.

Service Retirement

We found that the actual number of service retirements greatly exceeded the number expected, for both males and females. This was mainly due to the two Early Retirement incentives offered in 1992 and 1993. The actual versus expected number of retirements were as follows:

	(2 years) July 1, 1991 - June 30, 1993			(2 years) July 1, 1989 - June 30, 1991		
	Actual	Expected	A/E Ratio	Actual	Expected	A/E Ratio
Males	137	74.6	184%	69	67.8	102%
Females	79	49.1	161%	34	38.5	88%

Since this pattern of retirements is not typical during a period where no early retirement incentive programs are offered, we feel that it would be inappropriate to change the rates of service retirement at this time.

Disability Retirement

Our experience analysis showed that the actual numbers of disability retirements, both service-connected and nonservice-connected, were less than expected for both males and females.

Below we show the results of our study for disability retirements. For comparative purposes, we have combined the results of the service-connected and nonservice-connected disabilities.

	(2 years) July 1, 1991 - June 30, 1993			(4 years) July 1, 1989 - June 30, 1993		
	Actual	Expected	A/E Ratio	Actual	Expected	A/E Ratio
Males	10	13.2	76%	18	26.0	69%
Females	4	6.4	63%	9	12.0	75%

As of June 30, 1993, there were an additional 8 disability retirement cases pending approval, including 5 male nonservice-connected cases. Given the small number of disabilities and the number of pending cases, we do not recommend a reduction in the rates at this time, except that for male members we feel it is necessary to decrease the rates of service-connected disability and increase the rates of nonservice-connected disability. These changes offset each other leaving the total expected number of disabilities virtually unchanged.

Barring other assumption changes, a decrease in the expected number of disability retirements generally decreases System costs while an increase in rates generally increases System costs.

Death Before Retirement

Over the last 2 years, the actual numbers of deaths, both nonservice-connected and death while eligible to retire, were less than expected for male members. For female members, the actual number of deaths closely matched the number expected.

Below we show the combined results of our study for deaths before retirement.

	(2 years) July 1, 1991 - June 30, 1993			(4 years) July 1, 1989 - June 30, 1993		
	Actual	Expected	A/E Ratio	Actual	Expected	A/E Ratio
Males	5	8.5	59%	18	16.2	111%
Females	4	4.0	100%	8	7.6	105%

No changes were made to the rates of death at this time.

Summary of Probabilities of Separation

The rates of separation from active service have been discussed in the foregoing paragraphs. However, it is difficult to obtain the meaning of the probabilities of separation by examining each one of them separately. This is because each of the probabilities depends on the others. For example, if there is more turnover, there will be fewer retirements. Because of this interdependency, it is helpful to develop another table which takes this into account. Exhibit 5 at the end of this section shows the expected number of present active members who will eventually separate from the system for each of the various causes of termination, based on the current assumptions (1991 valuation) and new assumptions recommended in this report.

In Exhibit 6, we have used these results to graphically display the percentage of members to separate, which makes it easier to visualize the meaning of the probabilities of separation. For purposes of this graph, we have combined the following:

- nonservice-connected death and death while eligible to retire into Death,
- service-connected disability and nonservice-connected disability into Disability, and
- deferred retirement and service retirement into Service.

At the end of this section, we also show complete listings of the current and new rates of separation by age.

Mortality After Service Retirement

At the time of the last actuarial study of the Retirement System, the 1983 Group Annuity Mortality Table was used to predict mortality after service retirement. The male version of the table was used for male members and survivors, while the female version of the table, set forward 1 year, was used for female members and survivors.

The expected numbers of retired member and survivor deaths are shown below.

	(2 years) July 1, 1991 - June 30, 1993			(4 years) July 1, 1989 - June 30, 1993		
	Actual	Expected	A/E Ratio	Actual	Expected	A/E Ratio
Males	42	35.3	119%	70	63.7	110%
Females	15	14.6	103%	32	25.4	126%

We recommend that these tables continue to be used to predict mortality after service retirement for male members, female members and survivors. The life expectancies under this table are as follows:

Years of Life Expectancy Based on Current Mortality Tables

Age	Males	Females
50	29.2	34.0
60	20.6	24.8
70	13.2	16.3
80	7.6	9.6

Mortality After Disability Retirement

At the time of the last actuarial study, the 1981 Disability Mortality Table for General members was used to measure mortality after disability retirement. For the current two year period, the expected number of deaths of retired disabled members was 8.7 while the actual number of deaths was 9, resulting in an A/E ratio of 103%. (The A/E ratio for the last four years was 101%).

We recommend the continued use of the 1981 Disability Mortality Table to predict mortality after disability retirement. The life expectancies under this table for members retired for disability are as follows:

Years of Life Expectancy Based on Current Mortality Table

Age	Members
50	21.1
60	16.4
70	11.7

EXHIBIT 6

EXPECTED NUMBER TO EVENTUALLY SEPARATE FOR INDICATED CAUSE

(Based on Current Actuarial Assumptions)

MALE MEMBERS

Present Age	Number of Actives	Withdrawal	Ordinary Death	Ordinary Disability	Service	Death While Eligible	Duty Disability	Terminated Vested
20-24	32	23	0	0	6	0	1	2
25-29	145	83	2	3	40	3	4	10
30-34	309	127	5	8	122	7	12	28
35-39	323	84	6	10	167	9	15	32
40-44	374	58	7	13	235	12	20	29
45-49	353	31	6	13	256	12	19	16
50-54	201	8	3	7	164	6	11	2
55-59	90	1	1	3	77	2	6	0
60-64	46	0	0	2	40	1	3	0
65 & OVER	13	0	0	0	13	0	0	0
TOTAL	1,886	415	30	59	1,120	52	91	119
		(22.0%)	(1.6%)	(3.1%)	(59.4%)	(2.8%)	(4.8%)	(6.3%)

FEMALE MEMBERS

Present Age	Number of Actives	Withdrawal	Ordinary Death	Ordinary Disability	Service	Death While Eligible	Duty Disability	Terminated Vested
20-24	21	18	0	0	2	0	0	1
25-29	153	111	1	2	25	1	2	11
30-34	234	142	2	4	60	2	4	20
35-39	242	111	2	6	92	4	5	22
40-44	279	85	3	9	146	6	7	23
45-49	245	43	3	9	164	6	7	13
50-54	163	14	2	7	129	3	5	3
55-59	75	3	1	3	65	1	2	0
60-64	41	0	0	2	37	1	1	0
65 & OVER	21	0	0	0	21	0	0	0
TOTAL	1,474	527	14	42	741	24	33	93
		(35.8%)	(1.0%)	(2.8%)	(50.3%)	(1.6%)	(2.2%)	(6.3%)

EXHIBIT 6
(continued)

EXPECTED NUMBER TO EVENTUALLY SEPARATE FOR INDICATED CAUSE

(Based on New Actuarial Assumptions)

MALE MEMBERS

Present Age	Number of Actives	Withdrawal	Ordinary Death	Ordinary Disability	Service	Death While Eligible	Duty Disability	Terminated Vested
20-24	32	21	0	1	7	0	1	2
25-29	145	72	2	4	48	3	5	11
30-34	309	103	6	10	140	8	12	30
35-39	323	63	6	13	183	10	15	33
40-44	374	41	7	16	248	13	19	30
45-49	353	22	6	16	263	12	18	16
50-54	201	7	3	8	165	6	10	2
55-59	90	1	1	4	77	2	5	0
60-64	46	0	0	2	41	1	2	0
65 & OVER	13	0	0	0	13	0	0	0
TOTAL	1,886	330	31	74	1,185	55	87	124
		(17.5%)	(1.7%)	(3.9%)	(62.8%)	(2.9%)	(4.6%)	(6.6%)

FEMALE MEMBERS

Present Age	Number of Actives	Withdrawal	Ordinary Death	Ordinary Disability	Service	Death While Eligible	Duty Disability	Terminated Vested
20-24	21	17	0	0	3	0	0	1
25-29	153	100	1	2	33	2	2	13
30-34	234	122	2	5	74	3	4	24
35-39	242	92	3	6	105	4	6	26
40-44	279	71	3	9	156	6	8	26
45-49	245	39	3	9	166	6	7	15
50-54	163	14	2	7	128	3	5	4
55-59	75	3	1	3	65	1	2	0
60-64	41	0	0	2	37	1	1	0
65 & OVER	21	0	0	0	21	0	0	0
TOTAL	1,474	458	15	43	788	26	35	109
		(31.1%)	(1.0%)	(2.9%)	(53.4%)	(1.8%)	(2.4%)	(7.4%)

EXHIBIT 7

EXPECTED PERCENTAGE TO EVENTUALLY SEPARATE FOR INDICATED CAUSE

(Based on Current and New Actuarial Assumptions)

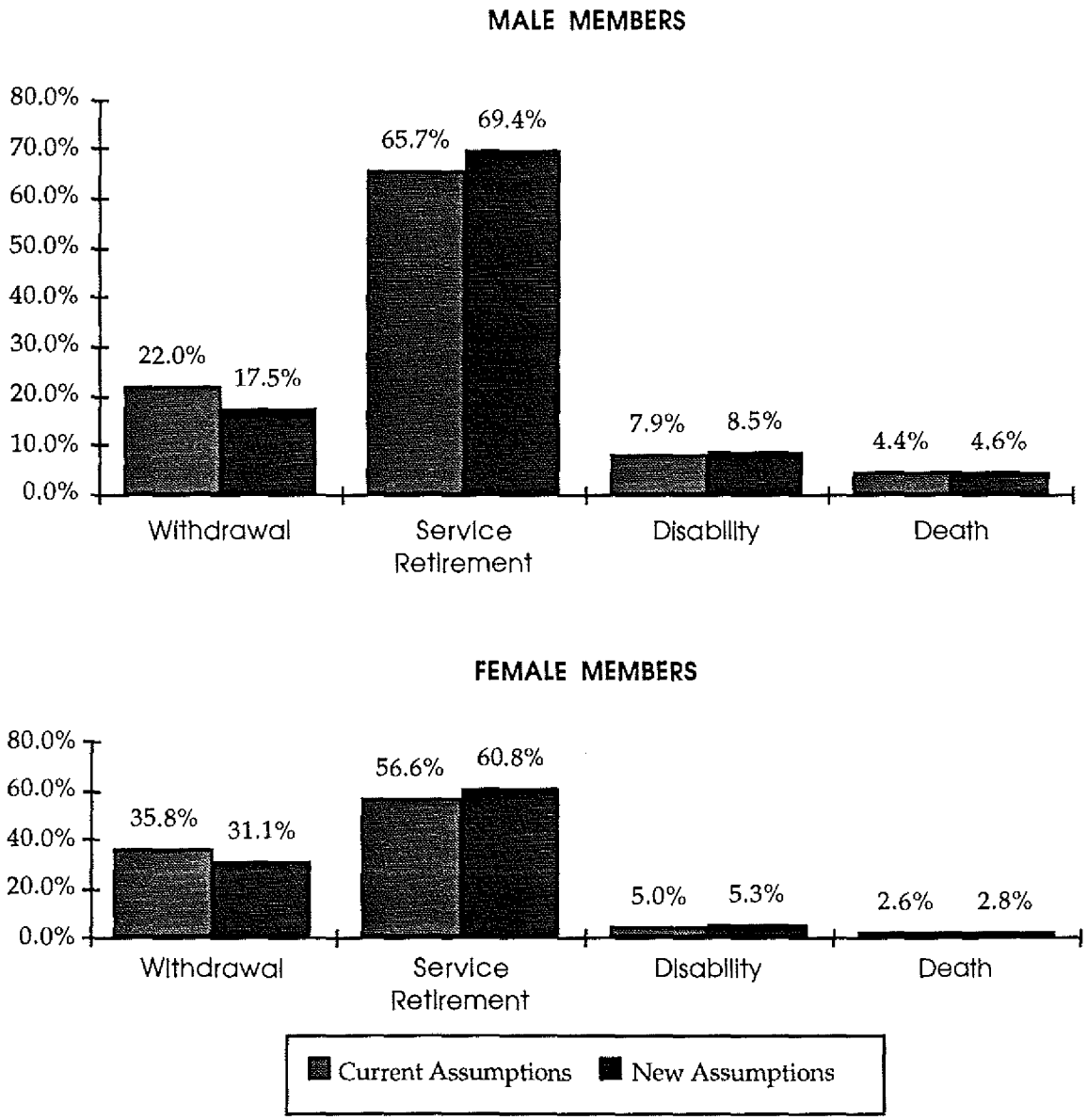

EXHIBIT 8
PROBABILITIES OF SEPARATION PRIOR TO RETIREMENT
(New Assumptions)

MALES

Age	Withdrawal	Ordinary Death	Ordinary Disability	Service	Death While Eligible	Duty Disability	Terminated Vested
20	.1200	.0003	.0000	.0000	.0000	.0005	.0000
21	.1100	.0003	.0000	.0000	.0000	.0005	.0000
22	.1000	.0003	.0000	.0000	.0000	.0005	.0000
23	.0950	.0003	.0000	.0000	.0000	.0005	.0000
24	.0900	.0003	.0000	.0000	.0000	.0005	.0000
25	.0850	.0003	.0002	.0000	.0002	.0005	.0014
26	.0800	.0003	.0002	.0000	.0002	.0005	.0015
27	.0750	.0003	.0002	.0000	.0002	.0005	.0016
28	.0700	.0004	.0002	.0000	.0002	.0006	.0017
29	.0650	.0004	.0002	.0000	.0002	.0006	.0018
30	.0600	.0004	.0002	.0000	.0002	.0006	.0020
31	.0550	.0004	.0002	.0000	.0002	.0006	.0023
32	.0500	.0004	.0002	.0000	.0002	.0006	.0027
33	.0450	.0005	.0003	.0000	.0003	.0006	.0031
34	.0400	.0005	.0003	.0000	.0003	.0007	.0034
35	.0350	.0005	.0004	.0000	.0003	.0007	.0039
36	.0300	.0005	.0004	.0000	.0004	.0007	.0045
37	.0260	.0006	.0005	.0000	.0004	.0007	.0054
38	.0230	.0006	.0005	.0000	.0004	.0008	.0064
39	.0200	.0006	.0006	.0000	.0005	.0008	.0072
40	.0180	.0007	.0006	.0000	.0005	.0008	.0079
41	.0160	.0007	.0007	.0000	.0006	.0009	.0089
42	.0140	.0007	.0007	.0000	.0006	.0009	.0098
43	.0120	.0007	.0008	.0000	.0007	.0009	.0096
44	.0110	.0008	.0008	.0000	.0009	.0009	.0092
45	.0100	.0008	.0009	.0000	.0011	.0009	.0091
46	.0090	.0008	.0010	.0000	.0013	.0010	.0089
47	.0080	.0009	.0011	.0000	.0015	.0011	.0087
48	.0075	.0009	.0012	.0000	.0017	.0012	.0082
49	.0070	.0010	.0014	.0000	.0019	.0013	.0074
50	.0065	.0011	.0016	.0100	.0021	.0015	.0065
51	.0060	.0012	.0019	.0050	.0023	.0018	.0055
52	.0055	.0013	.0022	.0050	.0025	.0022	.0043
53	.0050	.0014	.0027	.0050	.0027	.0027	.0030
54	.0050	.0015	.0033	.0100	.0029	.0033	.0015
55	.0050	.0015	.0039	.2500	.0031	.0040	.0000
56	.0050	.0016	.0046	.0800	.0033	.0047	.0000
57	.0050	.0017	.0054	.0900	.0035	.0056	.0000
58	.0050	.0018	.0063	.1000	.0037	.0068	.0000
59	.0050	.0019	.0074	.1000	.0040	.0084	.0000
60	.0000	.0020	.0085	.1000	.0043	.0104	.0000
61	.0000	.0021	.0098	.1100	.0046	.0124	.0000
62	.0000	.0022	.0112	.3500	.0049	.0149	.0000
63	.0000	.0023	.0127	.1200	.0052	.0181	.0000
64	.0000	.0024	.0143	.1500	.0055	.0220	.0000
65	.0000	.0025	.0160	.2000	.0058	.0260	.0000
66	.0000	.0026	.0000	.4000	.0061	.0000	.0000
67	.0000	.0027	.0000	.4000	.0064	.0000	.0000
68	.0000	.0028	.0000	.4500	.0067	.0000	.0000
69	.0000	.0029	.0000	.5000	.0070	.0000	.0000
70	.0000	.0000	.0000	1.0000	.0000	.0000	.0000

EXHIBIT 9
PROBABILITIES OF SEPARATION PRIOR TO RETIREMENT
(New Assumptions)
FEMALES

Age	Withdrawal	Ordinary Death	Ordinary Disability	Service	Death While Eligible	Duty Disability	Terminated Vested
20	.1250	.0001	.0000	.0000	.0000	.0003	.0000
21	.1150	.0001	.0000	.0000	.0000	.0003	.0000
22	.1100	.0001	.0000	.0000	.0000	.0003	.0000
23	.1050	.0001	.0000	.0000	.0000	.0003	.0000
24	.1000	.0001	.0000	.0000	.0000	.0003	.0000
25	.0950	.0001	.0002	.0000	.0001	.0003	.0030
26	.0900	.0001	.0002	.0000	.0001	.0003	.0032
27	.0850	.0001	.0002	.0000	.0001	.0003	.0035
28	.0800	.0002	.0002	.0000	.0001	.0003	.0039
29	.0750	.0002	.0002	.0000	.0001	.0004	.0044
30	.0700	.0002	.0002	.0000	.0001	.0004	.0048
31	.0650	.0002	.0002	.0000	.0001	.0004	.0052
32	.0610	.0002	.0002	.0000	.0001	.0004	.0055
33	.0580	.0003	.0002	.0000	.0001	.0004	.0057
34	.0550	.0003	.0002	.0000	.0001	.0004	.0059
35	.0520	.0003	.0002	.0000	.0001	.0004	.0061
36	.0490	.0003	.0002	.0000	.0002	.0005	.0063
37	.0460	.0003	.0002	.0000	.0002	.0005	.0065
38	.0430	.0004	.0002	.0000	.0002	.0005	.0068
39	.0400	.0004	.0002	.0000	.0002	.0005	.0071
40	.0370	.0004	.0002	.0000	.0002	.0005	.0075
41	.0340	.0004	.0002	.0000	.0003	.0005	.0081
42	.0310	.0005	.0002	.0000	.0004	.0005	.0087
43	.0290	.0005	.0003	.0000	.0005	.0005	.0095
44	.0270	.0005	.0003	.0000	.0006	.0005	.0103
45	.0250	.0006	.0003	.0000	.0007	.0005	.0105
46	.0230	.0006	.0004	.0000	.0008	.0006	.0105
47	.0210	.0007	.0004	.0000	.0009	.0006	.0100
48	.0190	.0007	.0005	.0000	.0010	.0007	.0095
49	.0170	.0007	.0005	.0000	.0011	.0007	.0090
50	.0160	.0008	.0006	.0025	.0012	.0008	.0085
51	.0150	.0008	.0008	.0025	.0013	.0009	.0080
52	.0140	.0008	.0011	.0025	.0014	.0010	.0075
53	.0130	.0009	.0015	.0025	.0015	.0012	.0070
54	.0120	.0009	.0020	.0025	.0016	.0015	.0065
55	.0120	.0009	.0026	.1250	.0018	.0018	.0000
56	.0120	.0010	.0033	.0650	.0020	.0022	.0000
57	.0120	.0010	.0041	.0650	.0022	.0027	.0000
58	.0120	.0011	.0050	.0800	.0024	.0033	.0000
59	.0120	.0011	.0060	.0900	.0026	.0040	.0000
60	.0000	.0012	.0071	.0900	.0028	.0048	.0000
61	.0000	.0012	.0083	.0800	.0030	.0060	.0000
62	.0000	.0013	.0096	.2350	.0032	.0073	.0000
63	.0000	.0013	.0110	.0550	.0034	.0089	.0000
64	.0000	.0014	.0125	.0750	.0036	.0120	.0000
65	.0000	.0015	.0140	.2500	.0038	.0160	.0000
66	.0000	.0016	.0000	.2000	.0040	.0000	.0000
67	.0000	.0017	.0000	.3500	.0042	.0000	.0000
68	.0000	.0018	.0000	.3000	.0045	.0000	.0000
69	.0000	.0019	.0000	.4000	.0048	.0000	.0000
70	.0000	.0000	.0000	1.0000	.0000	.0000	.0000

EXHIBIT 10

YEARS OF LIFE EXPECTANCY AFTER SERVICE RETIREMENT

Age	Male	Female	Age	Male	Female
50	29.18	33.97	80	7.64	9.63
51	28.30	33.03	81	7.21	9.09
52	27.42	32.10	82	6.81	8.57
53	26.55	31.16	83	6.43	8.06
54	25.68	30.23	84	6.07	7.58
55	24.82	29.31	85	5.73	7.11
56	23.97	28.39	86	5.41	6.66
57	23.13	27.48	87	5.10	6.23
58	22.29	26.57	88	4.82	5.81
59	21.46	25.67	89	4.54	5.40
60	20.64	24.78	90	4.28	5.02
61	19.83	23.89	91	4.04	4.66
62	19.02	23.01	92	3.80	4.31
63	18.23	22.15	93	3.58	3.98
64	17.45	21.28	94	3.37	3.67
65	16.69	20.43	95	3.16	3.37
66	15.95	19.59	96	2.98	3.10
67	15.23	18.76	97	2.80	2.84
68	14.52	17.94	98	2.62	2.59
69	13.84	17.13	99	2.45	2.36
70	13.18	16.34	100	2.28	2.14
71	12.54	15.56	101	2.11	1.93
72	11.92	14.81	102	1.95	1.74
73	11.31	14.08	103	1.78	1.55
74	10.72	13.37	104	1.61	1.37
75	10.15	12.69	105	1.43	1.19
76	9.60	12.03	106	1.26	1.03
77	9.08	11.39	107	1.09	.87
78	8.57	10.78	108	.92	.71
79	8.10	10.20	109	.74	.50

1983 GA (x, y+1)

EXHIBIT 11

YEARS OF LIFE EXPECTANCY AFTER DISABILITY RETIREMENT

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

1981 Disability Table for General Members

(ii) ECONOMIC ASSUMPTIONS

Interest Rate Assumptions

Historical Return on Investments

To assist in the selection of appropriate interest assumptions for use in the actuarial valuation, we first studied the history of the Retirement Fund's investment returns. The rates of return on the Fund's investments at book value, market value, and adjusted book value, along with the assumed rates of return, are shown in the following table:

Fiscal Year	Book Value Return	Market Value Return	Adjusted Book Value Return	Assumed Rate of Return
1979/80	8.0%			7.00%
1980/81	9.0%			7.00%
1981/82	10.0%			8.00%
1982/83	10.0%			8.00%
1983/84	9.8%			8.50%
1984/85	11.4%			8.50%
1985/86	11.0%			9.00%
1986/87	12.7%			9.00%
1987/88	9.5%			9.00%
1988/89	10.4%			9.00%
1989/90	9.5%	9.6%	10.5%	9.00%
1990/91	7.9%	8.3%	8.9%	9.00%
1991/92	10.1% *	11.5% *	8.6% *	8.75%
1992/93	9.7% *	11.8% *	9.1% *	8.75%
4-year avg.	**9.3%**	**10.3%**	**9.3%**	**8.88%**
14-year avg.	**9.9%**			**8.46%**

*Net of expenses.

Assumptions Utilized by Other Employers

Results of a surveys of interest rate assumptions utilized by California public retirement systems and other public funds are shown in Table 1.

TABLE 1

Percentage of Retirement Plans Utilizing
Interest Rate Assumptions Within Range

Interest Rate Range	State Controllers Report on California Public Retirement Systems (Fiscal Year 1991/92)	Greenwich Associates 1992 Study (Public Funds)
Under 7%	8.0%	8.0%
7% - 7.99%	17.0%	31.0%
8% - 8.99%	72.0%	53.0%
9% and over	3.0%	9.0%
Average rate	**8.0%**	**8.0%**

The average interest rate assumption used by the 1937 Act Counties is 8.21%. PERS presently utilizes a rate of 8.75%.

Economic theory holds that the total nominal rate of return on an investment is comprised of two components:

- Inflation
- Real rate of return

Inflation

In order for an investment to be marketable, it must be expected to provide a hedge against inflation. In addition, there must be some premium reflective of the risk that the investor takes in holding the security.

The inflationary component also affects benefit amounts in the form of salary increases and cost of living adjustments.

Inflationary salary and wage increases are granted to maintain the purchasing power of salaries and wages earned by employees over time. Since retirement benefits are linked to compensation, inflationary increases affect the projected amount of benefit an employee will receive upon retirement.

Pension benefits for members are automatically adjusted for at least a portion of the increases that occur in the Consumer Price Index (CPI) after retirement up to a maximum of 3% annually. These cost-of-living adjustments directly impact the amount of benefits paid from the System, thus they must be anticipated in the actuarial valuation process.

As an illustration of the historical inflation rates exhibited by the U. S. economy, the table shown below provides the average compound rates of increase in the Consumer Price Index through 1992 over selected periods.

TABLE 3
Historic CPI Increases

Period	Average	Period	Average
Last 90 Years	3.3%	Last 30 Years	5.3%
Last 70 Years	3.2%	Last 20 Years	6.3%
Last 50 Years	4.4%	Last 10 Years	3.8%

The average inflation rate used by the 1937 Act County Systems is 4.96%. PERS presently utilizes a rate of 4.50%. Based on the results above and in anticipation of the continuation of the "over inflationary" environment, we recommend that the current 5.50% inflation assumption be reduced to 5.00%.

Rate of Return

In order to develop an appropriate real (inflation free) rate of return, it is first necessary to determine how assets will be allocated among the various investment classes: stocks, bonds, real estate, and short term investments.

The Board's target and current asset allocations are shown in Table 4.

TABLE 4

Asset Allocation as of 6/30/93

	Target	Current*
Domestic Stocks	32%	36%
International Stocks	8%	3%
Domestic Bonds	45%	45%
International Bonds	5%	4%
Real Estate Equity	10%	7%
Short Term Investments	0%	5%

*At Market Value. Assumes loaned securities are held in the same proportion as unloaned securities.

Many empirical studies have been carried out to measure historical real rates of return on various types of investments. One of the most notable is that by Roger Ibbotson and Rex A. Sinquefield, titled Stocks, Bonds and Inflation: Simulations of the Future. Table 5 provides the Ibbotson - Sinquefield measure of the real rates of return for the years between 1926 and 1992. Investment consulting firms utilize this and other studies to derive expected long-term real rates of return for use in asset allocation models. These models serve as an aid to retirement plan fiduciaries in determining what proportion of the plans' investment portfolio to place in various classes of securities. In Table 6 we show a range of real rates of return used by some of the large investment firms.

TABLE 5

Ibbotson - Sinquefield
Real Rates of Return of Investments

	(1926 - 1992)
Domestic stocks	7.0%
Long-term government bonds	1.7%
Long-term corporate bonds	2.3%
Treasury bills	0.5%

TABLE 6

Real Returns Used by Investment Consultants

Stocks - domestic	6.5% to 7.5%
Stocks - international	7.0% to 8.0%
Bonds	2.5% to 3.0%
Real estate	4.0% to 4.5%
Treasury bills	0.5% to 1.0%

Applying the target asset allocation (Table 4) to the information in Table 5 results in a real rate of return of approximately 4.2% (assuming 4% real rate of return for real estate, 7.5% for international equities, and equal percentages of corporate and government bonds). Applying the target asset allocation to the information in Table 6 results in a real rate of return from 4.3% to 5.0%. There are a number of additional factors which must be considered before arriving at an appropriate level for actuarial valuation purposes. These are discussed below:

Expenses for Professional Services: Professional fees are being paid from the earnings. These expenses amount to approximately 0.3% of the Fund values annually.

Variations in Return Rates: Annual real rates of return have varied substantially over the years. For example, even if we expect the averages displayed in Table 5 to be a reasonable estimate of real returns in the future, we know there is some likelihood that future real rates will fall below historical averages.

In order to quantify this, one would need to know what is referred to statistically as the standard error of the estimate. As an approximation of this quantity, we have utilized historical information available as to the expected variation in real rates of return. If we make certain assumptions about the statistical nature of the average real returns and consider the relatively high concentration of stock in the target allocation, the results are that in order to be about 75% certain that the actual return is no less than our estimate, it would be necessary to use a value about 1% below that derived above. It should be noted that this derived margin is only approximate since the U.S. economy is a complex, dynamic system.

Adherence to Target Asset Allocation: Variations in the actual versus the target asset allocation will occur from time to time. For example, market conditions may cause cash holdings to increase for some period. In general, we expect that as long as such variations generally arise as part of the investment managers' short term strategy to maximize returns, no additional margin needs to be built into the determination of the System's expected real rate of return. Looking back to Table 4, we notice that the current asset allocation and the target allocation do not vary substantially as of the current valuation date.

Recommendation

Based on the above analysis and survey information, we conclude that a real rate of return of between 3.00% and 3.25% is appropriate for use with the recommended 5.00% inflation rate, for a total return of 8.00% to 8.25%, respectively. We are therefore recommending a reduction in the current total rate of return assumption. The 8.25% rate provides a margin generally consistent with that used in the prior actuarial valuation. We believe that given current market conditions this is an appropriate time for the Board to consider strengthening that margin.

Salary Scale Assumption

The salary scale assumption is comprised of two components:

- Inflation
- Merit and Longevity

Inflation

In addition to being an important component of interest earnings, inflation also causes members' salaries and the cost-of-living to rise.

The average salary increases and the Average Annual All Urban Consumers Consumer Price Index (CPI) increases (San Francisco - Oakland - San Jose area) since 1980 were as follows:

Fiscal Year	Annual Average CPI Increase	Average Salary Increase *
1979/80	11.7%	14.5%
1980/81	14.5%	14.5%
1981/82	0.3%	12.5%
1982/83	4.3%	12.5%
1983/84	5.0%	6.0%
1984/85	3.0%	6.0%
1985/86	1.7%	4.5%
1986/87	4.8%	4.5%
1987/88	4.0%	4.5%
1988/89	5.0%	4.5%
1989/90	4.1%	6.0%
1990/91	5.0%	6.0%
1991/92	3.8%	6.5%
1992/93	3.1%	6.5%
14-year average	**5.0%**	**7.8%**

* Assumes equal increases for non-valuation years. Based on salaries for continuing members only for fiscal years starting 1991/92 (and excludes 1.0% for merit and longevity).

Merit and Longevity Increases

The second component of the salary scale assumption is merit and longevity. Employees generally receive increases in excess of inflation over their careers as a result of promotions and advances in their pay grades.

For your City the "merit and longevity" increases range from 5% to 1/2% per year depending on the member's age. The effect of the merit and longevity increase is to add approximately 1% per year to the inflationary salary projections.

Adjusted Book Value of Assets

A modified book value of the Fund's assets has been used for purposes of calculating the required contribution rates. Under this approach, more recognition is given each year to total earnings to the Fund

The approach used for your System is to spread the unrealized and realized gains (losses) over five years. In other words, only 20% of unrealized and realized gains (losses) are recognized in any one year.

These modified assets, which we called the Adjusted Book Value, were arrived at as follows:

1. Unrealized and Realized Gains (Losses):

Fiscal Year End	Unrealized 100%	Realized 100%	Unrealized and Realized 20%	Number of Years to 6/30/93	Total Unrealized and Realized Gains (Losses) Recognized to 6/30/93
6/30/89	$ 17,309,000		$ 3,642,000	5	$ 17,309,000
6/30/90	2,141,000	$ 7,062,000	1,841,000	4	7,364,000
6/30/91	2,842,000	3,230,000	1,214,000	3	3,642,000
6/30/92	8,673,000	14,042,000	4,543,000	2	9,086,000
6/30/93	13,178,000	17,454,000	6,126,000	1	6,126,000

2. Total Gains (Losses) Recognized to June 30, 1993	$ 43,527,000
3. Book Value as of June 30, 1993 (less payables)	$ 512,210,000
4. Realized Appreciation over the past 4 years	$ 41,788,000
5. Book Value at June 30, 1993 Net of Realized Appreciation (Depreciation) for past 4 years (3. - 4.)	$ 470,422,000
6. (2. + 5.)	$ 513,949,000
7. Corridor Limit (net assets @ Market Value: $ 556,353,000)	
a. 80% of Market Value (less payables)	$ 445,082,000
b. 120% of Market Value (less payables)	$ 667,624,000
8. Item 6. After Corridor Applied	$ 513,949,000
9. Actuarial Book Value Ratio (8./3.)	1.0034

The ratio of 1.0034 is used to adjust only the reserves used in arriving at the Employer contribution rates. The Retirement Fund Contingency Reserve, SRBR and accounts payable are not increased, resulting in a total net Adjusted Book Value of $525,512,000

Each year for the next four years, and additional 20% of the fiscal year 6/30/93 gain, or $6,126,000, will be added to your Adjusted Book Value. An additional 20% of the 6/30/92 amount, or $4,543,000 will be added for the next three years. An additional 20% of the 6/30/91 amount, or $1,214,000, will be added for two more years. An additional 20% of the 6/30/90 amount, or $1,841,000 will be added for one more year. In addition, 20% of the new unrealized and realized gains or losses will also be recognized from now on under this method.

Multiple Studies

In connection with this experience study, we are again performing three valuations of the System by varying the interest rates and the corresponding inflation components of the salary scales used. The purposes of this is to analyze the effect of these changes on the City and member contribution rates. The three studies we are proposing are as follows:

Study # 1 – A valuation using 8.75% interest along with salary scales reflecting merit, longevity and 5.50% inflation. This set of economic assumptions is presently in effect.

Study # 2 – A valuation using 8.25% interest along with salary scales reflecting merit, longevity and 5.00% inflation.

Study # 3 – A valuation using 8.00% interest along with salary scales reflecting merit, longevity and 5.00% inflation.

We show at the end of this section a listing of each of the above salary scales.

EXHIBIT 12

RATIO OF CURRENT COMPENSATION TO COMPENSATION ANTICIPATED AT RETIREMENT AGE

Age	Study#1	Study #2	Study #3
20	.026	.034	.034
21	.029	.037	.037
22	.032	.041	.041
23	.036	.045	.045
24	.039	.049	.049
25	.043	.054	.054
26	.048	.059	.059
27	.053	.065	.065
28	.058	.071	.071
29	.064	.077	.077
30	.070	.084	.084
31	.076	.092	.092
32	.083	.099	.099
33	.090	.107	.107
34	.097	.115	.115
35	.105	.124	.124
36	.113	.133	.133
37	.122	.143	.143
38	.131	.153	.153
39	.141	.164	.164
40	.152	.175	.175
41	.163	.188	.188
42	.176	.201	.201
43	.189	.215	.215
44	.203	.229	.229
45	.217	.245	.245
46	.232	.260	.260
47	.248	.277	.277
48	.265	.294	.294
49	.283	.313	.313
50	.301	.331	.331
51	.321	.351	.351
52	.341	.371	.371
53	.363	.394	.394
54	.386	.416	.416
55	.409	.440	.440
56	.435	.465	.465
57	.461	.491	.491
58	.490	.518	.518
59	.519	.547	.547
60	.551	.578	.578
61	.586	.611	.611
62	.621	.645	.645
63	.659	.682	.682
64	.700	.720	.720
65	.743	.761	.761
66	.788	.803	.803
67	.836	.848	.848
68	.888	.896	.896
69	.942	.947	.947
70	1.000	1.000	1.000

Study #1 = 8.75% interest with salary scale of merit and longevity plus 5.50% for inflation.
Study #2 = 8.25% interest with salary scale of merit and longevity plus 5.00% for inflation.
Study #3 = 8.00% interest with salary scale of merit and longevity plus 5.00% for inflation.

SECTION
IV

VALUATION RESULTS

(i) CONTRIBUTION RATES

Retirement contribution requirements are divided into two major categories: City and Employee contribution rates. Furthermore, the City of San Jose Municipal Code states that part of the pension liabilities under the System is to be shared by the members and the City on a 3:8 ratio, part is to be shared on a 42:58 ratio, and the balance is the responsibility of the City alone. The requirements are further divided into basic and cost of living and retiree health and dental insurance contribution rates.

A comparison of City and employee total basic, cost of living and health and dental insurance contribution rates follows. This comparison shows rates and annual dollar amounts currently contributed, as well as those resulting from our new study based on three sets of long-term economic assumptions.

	Basic, Cost of Living, and Health & Dental Insurance Contribution Rates			
	CITY		EMPLOYEE	
	Percentage of Payroll	Annual Amount*	Percentage of Payroll	Annual Amount*
Current rates @ 8.75% interest and 5.50% inflationary salary scale assumption	15.59% 2.64%	$ 22,727,000	6.88%	$ 10,030,000
Recalculated rates:				
Study #1 rates @ 8.75% interest and 5.50% inflationary salary scale assumption	16.84%	$ 24,549,000	7.64%%	$ 11,138,000
Study #2 rates @ 8.25% interest and 5.00% inflationary salary scale assumption	18.43%	$ 26,867,000	8.40%	$ 12,246,000
Study #3 rates @ 8.00% interest and 5.00% inflationary salary scale assumption	19.61%	$ 28,588,000	8.98%	$ 13,091,000

* Based on June 30, 1993 total payroll of $145,781,000.

In comparing the current rates with those resulting from Study #1, both based on the same economic assumptions, we note an increase in the City rates and the employee rates. The increase is due to a number of factors, the primary ones being the change in the noneconomic experience assumptions and the 1992 and 1993 Early Incentives.

The rates resulting from Studies #2 and #3 are higher due to the lower investment earnings assumed for the future.

W F CORROON

W F Corroon
50 Fremont Street
24th Floor
San Francisco, CA
Zip Code: 94105-2236
Telephone 415-979-0600
Fax 415-979-0177

June 30, 1994

CONFIDENTIAL

Mr. Ed Overton
City of San Jose
Federated City Employees'
Retirement System
801 N. First Street
San Jose, California 95110

Dear Ed:

The following are the revised contribution rates as of July 1, 1993. These are based on our Study #2, with the revisions recommended by Buck Consultants in their June 9, 1994 letter. The annual amounts are based on total June 30, 1993 payroll of $145,781,000.

	Total Contribution Rates			
	CITY		EMPLOYEE	
	% of Payroll	Annual Amount	% of Payroll	Annual Amount
Basic				
Current Service	9.02%	$ 13,148,000	3.94%	$ 5,743,000
Prior Service	0.86	1,254,000	0.01	15,000
COL				
Current and Prior Serivce	3.89	5,671,000	1.74	2,537,000
Health Insurance 1.93	2.26	3,295,000	2.18	3,178,000
Dental Insurance .61	0.72	1,050,000	0.25	364,000
1987 Early Incentive	0.30	437,000	0.00	0
1992 Early Incentive	0.43	627,000	0.00	0
1993 Early Incentive	0.53	773,000	0.00	0
Total	18.01%	$ 26,255,000	8.12%	$ 11,837,000

If you have any questions, please let us know.

Sincerely,

Gordon J. Foster
Senior Consulting Actuary

GJF:abd

cc: Buck Consultants

The determination of the City's basic and cost of living contribution rates is made according the Entry Age Normal Cost actuarial funding method. Under this method, part of the cost of benefits (normal cost) is being paid over the future working lifetimes of the members, and part (the supplemental past service cost) is being amortized over a fixed number of years. The part of the supplemental past service cost for the 1987 Golden Handshake is amortized over 30 years, with 24 years remaining from the valuation date, while the remainder is amortized over 30 years, with 26 years remaining from the valuation date. Member basic and cost of living contributions are payable over the employees' future working lifetimes.

The health insurance premium benefit is being partially funded over the next fifteen years and the cost is shared equally between the City and the employees. The dental insurance premium benefit is also being partially funded over the next fifteen years with costs being shared on a 3:8 basis between the employees and the City.

The Board adopted the economic assumptions of Study #2. As a result, the remainder of this report develops costs and liabilities only under those assumptions.

Recommended Contribution Rates

We recommend that the Study #2 contribution rates be adopted. The total contribution rates resulting from Study #2 are as follows:

	Total Contribution Rates			
	CITY		EMPLOYEE	
	Percentage of Payroll	Annual Amount*	Percentage of Payroll	Annual Amount*
Recommended Study #2 rates @ 8.25% interest and 5.00% inflationary salary scale assumptions				
a. Basic	10.18%	$ 14,840,000	4.08%	$ 5,948,000
b. COL	4.05	5,904,000	1.79	2,609,000
c. Health Insurance**	2.30	3,353,000	2.26	3,295,000
d. Dental Insurance**	0.72	1,050,000	0.27	394,000
e. 1987 Early Incentive	0.30	437,000	0.00	0
f. 1992 Early Incentive	0.43	627,000	0.00	0
g. 1993 Early Incentive	0.45	656,000	0.00	0
h. Total	18.43%	$ 26,867,000	8.40%	$ 12,246,000

* Based on June 30, 1993 total payroll of $145,781,000.

** The City rate for health insurance includes a premium of 0.4% for the 1987 Golden Handshake while the employee rate for health insurance was reduced by this premium. Similarly, the rates for dental insurance were adjusted by .01%.

A breakdown of the contribution rates into the various components is shown in Table A on the following page. Tables B and C show the procedure used to arrive at the health and dental insurance premium costs.

San Jose Federated City Employees' Retirement System

Breakdown of Rate Increases, 7/1/93

	Basic, Cost of Living, and Health & Dental Insurance Contribution Rates	
	CITY	EMPLOYEE
	Percentage of Payroll	Percentage of Payroll
Current rates @ 8.75% interest and 5.50% inflationary salary scale assumption	15.59%	6.88%
Increase in rates due to:		
Miscellaneous gains and losses due to experience other than assumed, 7/1/91 to 7/1/93	+.54%	+.66%
Revision in asset method	+.15%	+.05%
Revision in non-economic assumptions **(= Study #1)**	+.51%	+.05%
Revision in economic assumptions to 8.25% interest and 5.00% inflationary salary scale assumption **(= Study #2)**	+1.59%	+.76%
Total Study #2 rates (sum of above)	18.43%	8.40%

54
15
51
120

May 18, 1994

TABLE A

PROCEDURE USED IN ESTABLISHING CONTRIBUTION RATES

Study #2 — 8-1/4% interest; merit, longevity and 5% inflation salary scale

Employer:Employee Contribution Basis	Net Present Value (without adjustments)		Contribution Rates Based on Net Present Value (without adjustments)		Contribution Rates (**adjusted** for future employee withdrawal and 26-year amortization of past liability by the City)	
	EMPLOYER	EMPLOYEE	EMPLOYER	EMPLOYEE	EMPLOYER	EMPLOYEE
58:42						
a. Basic	$ 501,000	$ 363,000	0.03%	0.02%	0.02%	0.02%
b. COL	1,851,000	1,340,000	0.10	0.08	0.07	0.09
c. Total (a. + b.)	$ 2,352,000	$ 1,703,000	0.13%	0.10%	0.09%	0.11%
100:0						
a. Basic	$ 24,960,000	$ 0	1.43%	0.00%	0.95%	0.00%
b. COL	10,624,000	0	0.61	0.00	0.41	0.00
c. Total (a. + b.)	$ 35,584,000	$ 0	2.04%	0.00%	1.36%	0.00%
d. 1987 Early Incentive	$ 7,371,000	$ 0	0.42%	0.00%	0.30%**	0.00%
e. 1993 Early Incentive	$ 8,792,000	$ 0	0.50%	0.00%	0.43%	0.00%
f. 1993 Early Incentive	$ 9,913,000	$ 0	0.57%	0.00%	0.39%	0.00%
8:3						
a. Basic	$ 166,788,000	$ 62,545,000	9.55%	3.58%	9.21%	4.06%
b. COL	70,004,000	26,252,000	4.00	1.50	3.57	1.70
c. Total (a. + b.)	$ 236,792,000	$ 88,797,000	13.55%	5.08%	12.78%	5.76%
d. Dental Insurance*	$ 12,377,000	$ 4,641,000	0.71%	0.27%	0.72%	0.27%
50:50						
a. Health Insurance*	$ 38,637,000	$ 38,637,000	2.21%	2.21%	2.30%	2.26%
Total						
a. Basic	$ 192,249,000	$ 62,908,000	11.01%	3.60%	10.18%	4.08%
b. COL	82,479,000	27,592,000	4.72	1.58	4.05	1.79
c. Health Insurance*	38,637,000	38,637,000	2.21	2.21	2.30	2.26
d. Dental Insurance*	12,377,000	4,641,000	0.71	0.27	0.72	0.27
e. 1987 Early Incentive	7,371,000	0	0.42	0.00	0.30**	0.00
f. 1992 Early Incentive	8,792,000	0	0.50	0.00	0.43	0.00
g. 1993 Early Incentive	9,913,000	0	0.57	0.00	0.45	0.00
h. Total	$ 351,818,000	$ 133,778,000	20.14%	7.66%	18.43%	8.40%

*The Dental and Health Insurance Premium Benefit liability represents level funding of the liability for 15-years' worth of premiums. Thus, figures shown do not reflect the entire liability of the Retirement System.
The City rate for health insurance includes a premium of .04% for the 1987 Golden Handshake while the employee rate for health insurance is reduced by this premium. Similarly, the rates for dental insurance were adjusted by .01%.

**Reflects 24-year amortization.

TABLE B

RETIREE HEALTH INSURANCE 15-YEAR COST PROJECTION

Year	(1) Annual Cost Per Retiree	(2) Number of Insured Retirees	(3) Annual Cost (1) x (2) **	(4) Total Covered Payroll	Cost as a Percentage of Payroll (50:50 Basis) (5) Actual Percentage	(6) Level Percentage ***
7/1/93	$3,084 *	1,091	$3,365,000	$145,781,000	1.23%	2.30%
7/1/94	3,346	1,178	3,942,000	153,070,000	1.37%	2.30%
7/1/95	3,630	1,272	4,617,000	160,724,000	1.53%	2.30%
7/1/96	3,939	1,374	5,412,000	168,760,000	1.70%	2.30%
7/1/97	4,274	1,484	6,343,000	177,198,000	1.90%	2.30%
7/1/98	4,637	1,603	7,433,000	186,058,000	2.12%	2.30%
7/1/99	5,031	1,731	8,709,000	195,361,000	2.37%	2.30%
7/1/00	5,459	1,869	10,203,000	205,129,000	2.64%	2.30%
7/1/01	5,923	2,019	11,959,000	215,385,000	2.95%	2.30%
7/1/02	6,426	2,181	14,015,000	226,154,000	3.29%	2.30%
7/1/03	6,972	2,355	16,419,000	237,462,000	3.67%	2.30%
7/1/04	7,565	2,543	19,238,000	249,335,000	4.10%	2.30%
7/1/05	8,208	2,746	22,539,000	261,802,000	4.57%	2.30%
7/1/06	8,906	2,966	26,415,000	274,892,000	5.11%	2.30%
7/1/07	9,663	3,203	30,951,000	288,637,000	5.70%	2.30%

ACTUARIAL ASSUMPTIONS

Investment Yield:	8.25%
Growth in Cover Payroll:	5.00%
Health Premium Cost Increase:	8.50%
Growth in Retiree Rolls:	Based on actual experience.
Funding:	Partial 15-year funding.

*Average cost as of July 1, 1993.
**An estimated reserve of $15,849,000 of assets is available towards the payment of future health insurance premiums.
***Includes a premium of .04% for the 1987 Golden Handshake.

TABLE C

RETIREE DENTAL INSURANCE 15-YEAR COST PROJECTION

Year	(1) Annual Cost Per Retiree	(2) Number of Insured Retirees	(3) Annual Cost (1) x (2) **	(4) Total Covered Payroll	Cost as a Percentage of Payroll (3:8 Basis) (5) Actual Percentage		(6) Level Percentage ***	
					EMPLOYEE	CITY	EMPLOYEE	CITY
7/1/93	$636 *	1,308	$832,000	$145,781,000	0.16%	0.43%	0.27%	0.72%
7/1/94	690	1,413	975,000	153,070,000	0.18%	0.48%	0.27%	0.72%
7/1/95	749	1,526	1,143,000	160,724,000	0.20%	0.53%	0.27%	0.72%
7/1/96	813	1,648	1,340,000	168,760,000	0.22%	0.59%	0.27%	0.72%
7/1/97	882	1,780	1,570,000	177,198,000	0.25%	0.67%	0.27%	0.72%
7/1/98	957	1,922	1,839,000	186,058,000	0.28%	0.74%	0.27%	0.72%
7/1/99	1,038	2,076	2,155,000	195,361,000	0.31%	0.83%	0.27%	0.72%
7/1/00	1,126	2,242	2,524,000	205,129,000	0.35%	0.92%	0.27%	0.72%
7/1/01	1,222	2,421	2,958,000	215,385,000	0.39%	1.03%	0.27%	0.72%
7/1/02	1,326	2,615	3,467,000	226,154,000	0.43%	1.15%	0.27%	0.72%
7/1/03	1,439	2,824	4,064,000	237,462,000	0.48%	1.28%	0.27%	0.72%
7/1/04	1,561	3,050	4,761,000	249,335,000	0.54%	1.44%	0.27%	0.72%
7/1/05	1,694	3,294	5,580,000	261,802,000	0.60%	1.60%	0.27%	0.72%
7/1/06	1,838	3,558	6,540,000	274,892,000	0.67%	1.79%	0.27%	0.72%
7/1/07	1,994	3,843	7,663,000	288,637,000	0.75%	1.99%	0.27%	0.72%

ACTUARIAL ASSUMPTIONS

Investment Yield:	8.25%
Growth in Cover Payroll:	5.00%
Dental Premium Cost Increase:	8.50%
Growth in Retiree Rolls:	Based on actual experience.
Funding:	Partial 15-year funding.

*Average cost as of July 1, 1993.

**An estimated reserve of $6,026,473 of assets is available towards the payment of future health insurance premiums.

***Includes a premium of .01% for the 1987 Golden Handshake.

(ii) FUNDING PROGRESS OF THE SYSTEM

A comparison of the measurement of the funding progress of the System in successive valuations is an important criterion for determining the soundness of a pension system. There are various methods of measuring the progress of the System's funding, but we believe the most useful measure is the ratio of the System's assets to its obligation for benefits earned to date. Unless amendments are made to the System, actuarial assumptions are strengthened, or actuarial losses are incurred, assets typically increase at a greater rate than the liabilities for benefits earned to date. This will have the effect of increasing the funding progress ratio in future years.

Funding Ratio - "Plan Termination" Assumption

At the time of each valuation we compute the ratio of the assets of the System to the obligation for benefits earned to date based on a plan termination assumption. To this end, we include below a comparison of the funding ratios previously calculated and recalculated as of the valuation date based on the current 8.75% interest rate and recalculated based on the new 8.25% interest rate assumptions.

	INTEREST RATE 8.75%		INTEREST RATE 8.25%
	Previously Calculated	Recalculated	Recommended
	July 1, 1991	July 1, 1993	July 1, 1993
(1) Assets as of valuation date*	$411,505,000	$512,210,000	$512,210,000
(2) Present value of benefits earned to date assuming immediate 100% vesting	$351,797,000	$464,987,353	$488,765,872
(3) Ratio of assets to benefits earned to date (1) / (2)	117%	110%	105%

* Excludes accounts payable.

The present value figure includes all liabilities of the System for basic and cost of living benefits granted to members and beneficiaries already on the pension roll. All basic and cost of living liabilities are included for every year of service already earned at the valuation date and assume immediate 100% vesting. The recalculated liabilities are based on the salaries of the members as of July 1, 1993. In calculating the funding progress of the System, we have used undistributed earnings.

The decrease in the funding ratio at the 8.75% interest rate is due mainly to the large increase in the total active and retired payroll. The ratio at 8.25% is lower due to lower expected future earnings.

A funding ratio of 100% or more at a valuation date does not mean that future contributions are unnecessary. It does, however, mean that, if the Plan were to be terminated as of that date, and plan assets produced the expected future returns, plan assets would be sufficient to pay plan liability when due.

GASB # – "Plan Continuation" Assumption with Future Salary Increases

Reporting requirements were promulgated by the Governmental Accounting Standards Board (GASB) under Statement #5, effective for plan years starting after December 15, 1986. The GASB #5 liabilities assume an ongoing plan, that is, they include future withdrawals, deaths and disability retirements. In addition, future projected salary increases are included in these figures. The pension benefit obligation includes all liabilities of the System for basic and cost of living benefits granted to members and beneficiaries already on the pension roll. All basic and cost of living liabilities of active and vested inactive members are included for every year of service already earned at the valuation date and assume immediate 100% vesting.

The Statement #5 liabilities based on the 8.75% interest rate and 6.50% salary scale assumptions as of July 1, 1991 and July 1, 1993, and on the 8.25% interest rate and 6.00% salary scale assumptions as of July 1, 1993 are as follows:

	(Previously Calculated) Interest Rate 8.75% Salary Scale 6.50%	(Recalculated) Interest Rate 8.75% Salary Scale 6.50%	(Recalculated) Interest Rate 8.25% Salary Scale 6.00%
	July 1, 1991	July 1, 1993	July 1, 1993
(1) Pension Benefit Obligation			
a. Current Retirants and Beneficiaries	$ 201,557,000	$ 295,645,000	$ 308,683,000
b. Terminated Vested Participants	5,785,000	7,331,000	7,761,000
c. Active Participants' Accumulated Contributions	86,084,000	94,284,000	94,284,000
d. Active Participants' Employer Financed Portion:			
Vested	142,696,000	156,148,000	169,266,000
Nonvested	20,956,000	25,618,000	27,019,000
e. Other	13,303,000	22,700,000	22,700,000
f. Total Pension Benefit Obligation	$ 470,381,000	$ 601,726,000	$ 629,713,000
(2) Net assets available at Book Value*	$ 411,505,000	$ 512,210,000	$ 512,210,000
(3) Funding ratio (2)/(1)	88%	85%	81%

*Exclude accounts payable.

The decrease in the funding ratio at the 8.75% interest rate is due mainly to the increase in the total active and retired payroll. The ratio at 8.25% is lower due to lower expected future earnings, offset somewhat by lower expected future salary increases.

This ratio is expected to reach 100% by the end of the amortization period currently used to pay off the unfunded liability.

(iii) ACTUARIAL BALANCE SHEET

One of the purposes of an Actuarial Balance Sheet is to enable the Board, by reference to periodic statements of this nature, to determine whether or not the contributions are adequate to provide the benefits without impairment to the Fund. The following is a descriptive listing of the items which make up the Actuarial Balance Sheet for basic and cost of living benefits under the System.

Item Number	Explanation
1.	The total assets in the Retirement Fund as of June 30, 1993, at Adjusted Book Value.
2.	The present value of the basic and cost of living pension contributions, as well as the contributions toward health insurance benefits after retirement it is anticipated will be made by present members after July 1, 1993, until their separation from the System as active members.
3.	The present value of future contributions that will be required of the City in order to fully provide the basic and cost of living pension benefits anticipated for present active, inactive, and retired members. The present value of future contributions required of the City to pay for health insurance premiums for current and future retirees over the next 15 years is also included here.
5.	The present value of the basic and cost of living allowances which are currently being paid to retired members and beneficiaries for service and disability retirements and survivor benefits. This includes the value of the $500 lump sum death benefit after retirement.
6.	The present value of retirement allowances (basic and cost of living) for anticipated future service and disability retirements, to active and inactive members, including continuance to their spouses.
7.	The present value of benefits payable due to the death of currently active or inactive members.
9.	The present value of termination benefits payable due to the withdrawal (refund) of currently active or inactive members.
10.	The reserves held for future adverse experience.

ACTUARIAL BALANCE SHEET*
As of June 30, 1993

	ASSETS		
	BASIC	COL	TOTAL
1. Total assets @ Adjusted Book Value	$ 398,690,000	$ 126,822,000	$ 525,512,000
2. Present value of future contributions by members:			
a) Retirement	71,274,000	31,270,000	102,544,000
b) Health and dental insurance	45,082,000	0	45,082,000
3. Present value of future contributions by City on account of:			
a) Retirement			
i) Normal cost	149,186,000	46,992,000	196,178,000
ii) Unfunded supplemental cost	60,545,000	40,584,000	101,129,000
b) Health and Dental insurance	54,882,000	0	54,882,000
4. Total actuarial assets	$ 779,659,000	$ 245,668,000	$ 1,025,327,000

	LIABILITIES		
	BASIC	COL	TOTAL
5. Present value of retirement allowances payable to present retired members	$ 201,918,000	$ 107,004,000	$ 308,922,000
6. Present value of retirement allowance to be granted:			
a) Service retirement	359,579,000	112,612,000	472,191,000
b) Ordinary disability	19,194,000	5,837,000	25,031,000
c) Duty disability	20,670,000	6,349,000	27,019,000
7. Present value of death benefits to be granted	16,394,000	5,443,000	21,837,000
8. Present value of members' contributions to be returned upon withdrawal or death before retirement:			
a) Past contributions	11,471,000	3,305,000	14,776,000
b) Future contributions	6,911,000	3,034,000	9,945,000
9. Present value health & dental**	122,631,000	0	122,631,000
10. Contingency reserve - undistributed earnings	11,298,000	0	11,298,000
11. Accounts payable	9,593,000	2,084,000	11,677,000
12. Total actuarial liabilities	$ 779,659,000	$ 245,668,000	$ 1,025,327,000

*Based on 8-1/4% interest rate and 6% salary scale assumptions. (Study #2)
**Includes $21,876,000 as estimated health and dental reserves.

Reciprocity Study

Reciprocal benefits are intended to encourage career public service by granting reciprocal retirement privileges to members who are entitled to retirement benefits from two or more retirement systems. Any members, regardless of age or service, who leave the Federated City Employees Retirement System service and become members of a reciprocal system within 180 days may elect to defer their retirement. At the time of retirement the benefit of a reciprocal member is then calculated using the highest salary of all reciprocal employers.

We have been requested to determine the additional liability and costs associated with the adoption of reciprocal benefits with California PERS and other independent public pension plans, e.g., City of San Diego and City and County of San Francisco. Our study has been based on expected terminations from the current active group. Our findings include the impact on member and employer contribution rates under the following three combinations of deferred and reciprocal retirements:

Scenario A – 75% deferred, 25% reciprocity
Scenario B – 50% deferred, 50% reciprocity
Scenario C – 25% deferred, 75% reciprocity

We have also been requested to comment on a report dated April 26, 1993, prepared by Mr. Steven T. Itelson, a consulting actuary.

The 1993 report states that actuaries consulted by Mr. Itelson knew of no systems that pre-fund reciprocity benefits, however the 1993 report does state that this was based primarily on East Coast experiences.

Our experience is contrary to the 1993 report. All of the 1937 Act Counties pre-fund reciprocity benefits. Although the costs may be small, there will be additional costs even if only one member receives an increase in retirement benefits. Using a method that pre-funds the benefit costs does produce an increase in the system's normal cost.

The table below shows the increase in contribution rates under two options. The first option assumes the City pays the full cost, and the second option assumed the cost is shared.

	CITY AND EMPLOYEES SHARE COST				CITY PAYS ALL COSTS	
	City		Employee			
	Percentage of Payroll	Annual Amount*	Percentage of Payroll	Annual Amount*	Percentage of Payroll	Annual Amount*
Scenario A	.51%	$ 743,000	.32%	$ 466,000	.70%	$ 1,020,000
Scenario B	1.01%	$ 1,472,000	.64%	$ 933,000	1.39%	$ 2,026,000
Scenario C	1.52%	$ 2,216,000	.97%	$ 1,414,000	2.08%	$ 3,032,000

*Based on June 30, 1993 total payroll of $145,781,000.

A comparison of benefits for a deferred and reciprocity member is given below. As with a service retirement calculation, the benefit depends on the service and final average salary of the member. In the case of reciprocity, the increase in salary has been estimated using a merit and longevity salary scale and inflation. The following examples apply to each of the three scenarios.

Sample Member Information:

	EXAMPLE #1	EXAMPLE #2
Entry Age:	25	35
San Jose Service:	10 years	7 years
San Jose Salary:	$ 2,500.00	$ 2,000.00
Retirement Age:	55	57
PERS Service:	20 years	15 years
Salary at Retirement:*	$ 8,870.87	$ 4,885.57
Annual Deferred Benefit:	$ 7,500.00	$ 4,200.00
Annual Reciprocity Benefit:	$ 26,612.88	$ 10,259.64
Additional Annual Cost to City:	$ 19,112.88	$ 6,059.64

*Estimated, based on salary scale of merit and longevity plus 5% for inflation.

The increase in retirement benefits for a reciprocity member is substantially higher than that of a deferred member. The difference in this benefit is a result of the salary increases granted to the member while employed with the reciprocal agency.

Based on the results of this study and our experience with other public retirement systems that have reciprocity benefits, we believe such a benefit will add cost to the system which should be anticipated. We do not agree with the conclusion of the 1993 report that *"the cost of reciprocity to be negligible."*

$5,000 Death Benefit

We have also determined the costs of providing for an increase in the lump sum payment death benefit from the $500 amount to $5,000.

The table below shows the impact of this benefit increase on member and employer contribution rates.

	Percentage of Payroll	Annual Amount*
CITY	0.08%	$ 117,000
EMPLOYEE	0.05%	$ 73,000

*Based on June 30, 1993 total payroll of $145,781,000.

All calculations have been based on the same member data utilized in the July 1, 1993 actuarial valuation of the Retirement System and on the actuarial assumptions recommended in that valuation.

SECTION
V

APPENDIX

(i) MAJOR PLAN PROVISIONS OF THE PRESENT 1975 SYSTEM

Briefly summarized below are the major provisions of the Federated City Employees' Retirement System, as amended through June 30, 1993.

Final Average Salary (FAS)

Final average salary is defined as the highest 36 consecutive months of compensation earnable.

Return of Contributions

If a member should resign or die without being eligible for an allowance, his or her contributions plus interest will be refunded. A member terminating with at least five years of service may elect to leave his or her contributions on deposit and receive a deferred retirement benefit at age 55.

Service Retirement Benefit

a. Requirement

Members with at least 5 years of service, who have attained the age of 55, or any age with 30 years of service, are eligible to retire.

b. Benefit

The retirement allowance payable is the FAS multiplied by 2-1/2% per year. The maximum benefit is 75% of FAS.

Disability Benefit

a. Requirement

(1) Members with at least five years of service are eligible for nonservice-connected disability.

(2) If the disability is service-connected, the member may retire regardless of length of service.

b. Benefit

(1) The minimum amount of nonservice-connected disability benefit is 40% of FAS, but not less than the service retirement benefit.

The benefit is subject to a reduction equal to 1/2% of FAS for each year of age (or fraction thereof) under age 55.

(2) The benefit for service-connected disability is 40% of FAS, offset by Worker's Compensation benefits.

Death Benefit Before Retirement

a. If the member's death is service-connected, or, if nonservice-connected and the member has at least five years of service, the spouse receives an allowance of 2-1/2% times FAS times years of service (minimum of 40% of FAS and maximum of 75% of FAS). If there is no spouse, unmarried children are entitled to the allowance to age 18.

b. If there are no family members eligible for an allowance, the survivor receives the return of the member's contributions plus one month's salary for each year of service up to six years.

Death Benefit After Retirement

a. If a member dies after retirement, a lump sum amount of $500 is paid to the survivor or estate.

b. On the death of the retired member, 50% of the member's allowance is continued to the surviving spouse for life. If there is no spouse, 25% of the spouse's benefit is paid to each child under age 18, but the maximum benefit to the children as a group cannot exceed 75% of the spouse's benefit.

Cost of Living

The maximum increase in retirement allowance is 3% per year based on the change in the Consumer Price Index for the month of December.

Unbroken Cost of Living to Survivors

Survivors will receive cost of living increases based on the member's original date of retirement for member deaths on or after June 24, 1988.

July 1, 1988 Special 1% Increase

An additional 1% increase per benefit year is paid to those retired or in survivor status as of July 1, 1986.

Post-Retirement Health and Dental - Retirements

Post-retirement health and dental insurance benefits are also payable by the City's Retirement Fund. The health benefit provides the retirees with fully paid health insurance premiums for the lowest cost medical plan offered by the City. Only retirees with 15 years of service or those receiving at least 37-1/2% of salary are eligible. The dental insurance is payable to retirees with five or more years of service.

The City and the members each contribute towards the post-retirement health and dental insurance programs.

Post-Retirement Health - Deferred Vested Members

Deferred vested members with 15 years of service who are in payment status will receive the same health benefits as above.

Members' Retirement Contributions

The members' contribution rates are recalculated on an actuarial basis at each actuarial study. The members presently contribute at the rate of 6.88% of pay.

City' Retirement Contributions

The City presently contributes at a rate of 15.59% of pay for all members. The City rate is the percentage of salary necessary, on an actuarial basis, to provide for the payment of the benefits promised, also taking into account the contributions being made by the members and the assets on hand. These rates are changed in accordance with the results of each actuarial study.

(ii) ACCOUNTING BALANCE SHEET

As of June 30, 1993
(UNAUDITED)

ASSETS

	Basic Retirement Fund	Cost of Living Fund	Combined Retirement System
Contributions receivable:			
a. Employee	$ 248,000	$ 67,000	$ 315,000
b. Employer	522,000	160,000	682,000
Receivable from brokers	2,829,000	287,000	3,116,000
Accrued interest receivable	3,180,000	1,151,000	4,331,000
Investments (book value)	$ 390,709,000	$ 124,734,000	$ 515,443,000
Total assets	**$ 397,488,000**	**$ 126,399,000**	**$ 523,887,000**

LIABILITIES AND RESERVES

	Basic Retirement Fund	Cost of Living Fund	Combined Retirement System
Accounts payable	$ 9,593,000	$ 2,084,000	$ 11,677,000
Employee contributions	81,205,000	22,893,000	104,098,000
Employer contributions	78,571,000	55,955,000	134,526,000
Retired reserve	168,703,000	9,119,000	177,822,000
Benefits payable reserve	46,952,000 *		46,952,000
Supplemental retiree benefit reserve	1,166,000 *		1,166,000
Undistributed earnings**	$ 11,298,000 *	$ 36,348,000	$ 47,646,000
Total liabilities and reserves	**$ 397,488,000**	**$ 126,399,000**	**$ 523,887,000**

*Adjusted Basic Undistributed earnings to 3%, the additional of $3,417,000 added to Benefits payable and Supplemental retiree benefit reserve.
**All of the undistributed earnings in the Cost of Living Fund only are used as assets in calculating the required contribution rates.