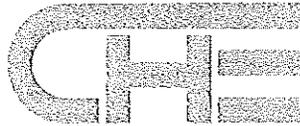


SAN JOSE
FEDERATED CITY EMPLOYEES'
RETIREMENT SYSTEM

Actuarial Valuation Report
as of July 1, 1985



**COATES
HERFURTH &
ENGLAND, INC.**
ACTUARIES AND CONSULTANTS

November 22, 1985

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

Ladies and Gentlemen:

Pursuant to our agreement, we have completed an actuarial valuation of the Federated City Employees' Retirement System, as of July 1, 1985. We are pleased to hand you herewith our report on the results of the survey.

The study was based upon the unaudited data as supplied to Coates, Herfurth & England, Inc. 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 Secretary of the Board and the members of his staff during the course of this survey.

Respectfully submitted,

COATES, HERFURTH & ENGLAND, INC.
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Enclosure

SAN JOSE

FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM

July 1, 1985

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REPORT ANALYSIS

SECTION I

FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM

Introduction

We were requested to perform an actuarial experience analysis and valuation of the Retirement System as of July 1, 1985, using the latest statistical information available as to the active, inactive, and retired membership.

A report covering the results of the experience analysis, dated October 3, 1985, has already been discussed with the Board. The actuarial valuation results presented herein reflect the results of this analysis and are based upon the benefits as defined by the Federated City Employees' Retirement Code.

The valuation results have been calculated under varying sets of salary scale and interest assumptions in order to point out the effects of inflation upon the contribution requirements of the System. We believe that these results will allow one to judge the relative impact of cost requirements in an inflationary environment.

The ratio of the assets of the System to its obligation for benefits earned to the date of the valuation is being provided on the basis currently used by the System, as well as the basis of FASB Statement #35 and NCGA Statement #6. We believe that anyone of these ratios, if used consistently from year to year, is a good measure of the funding progress of the Plan.

We hope that the information contained in this report will be of help to all parties in our mutual effort to assure the actuarial soundness and funding adequacy of the Federated City Employees' Retirement System.

FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEMSummary of Statistical Information

Our July 1, 1985 and July 1, 1983 actuarial valuations of your System are based on the following data:

	<u>July 1, 1985</u>	<u>July 1, 1983</u>	<u>Percentage Increase (Decrease) During the Two-year Period</u>
<u>Active Members</u>			
Number	2,579	2,461	5%
Total annual payroll*	\$ 74,845,000	\$ 63,855,000	17%
Average monthly salary*	\$ 2,418	\$ 2,162	12%
<u>Retired Members</u>			
Number	774	639	21%
Total annual pension roll (Basic)	\$ 6,470,000	\$ 4,646,000	39%
Average monthly allowance (Basic)	\$ 697	\$ 606	15%
Total annual pension roll (Basic and C.O.L.)	\$ 7,557,000	\$ 5,413,000	40%
Average monthly allowance (Basic and C.O.L.)	\$ 814	\$ 706	15%
<u>Inactive Vested Members</u>			
Number	115	122	(6)%
<u>Assets at Book Value</u>			
Basic Retirement Fund	\$159,247,000	\$127,622,000	25%
Cost of Living Fund	<u>40,111,000</u>	<u>28,851,000</u>	39%
Total Fund	\$199,358,000	\$156,473,000**	27%

*The salary for part-time employees reflects the annualized rate, slightly overstating the total payroll.

**Includes \$9,761,000 payable to brokers.

FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM

Summary of Valuation Results

	7-1-83 Study		7-1-85 Study	
	City	Employee	City	Employee
Total contribution rates*				
@ 8½% interest	15.72%	7.52%	15.19%	7.60%
@ 9% interest	-	-	14.18%	6.94%
@ 9½% interest	-	-	13.26%	6.32%
Funding Progress Ratios				
(a) Plan Termination (<u>without</u> future salary increases)				
@ 8½% interest	107%		114%	
@ 9% interest	-		121%	
@ 9½% interest	-		128%	
(b) Plan Continuation - FASB #35 (<u>without</u> future salary increase)				
@ 8½% interest	103%		110%	
@ 9% interest	-		116%	
@ 9½% interest	-		122%	
(c) Plan Continuation - NCGA #6 (<u>with</u> future salary increases)				
@ 8½% interest	-		73%	
@ 9% interest	-		76%	
@ 9½% interest	-		80%	

*Include Health Insurance Premium benefit rates.

ACTUARIAL ASSUMPTIONS

SECTION II

FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM

Non-economic Assumptions

Probabilities of Separation from Service Prior to Retirement

As of July 1, 1985, 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 non-vested withdrawal, death, disability retirement, service retirement, and vested withdrawal. The probabilities developed were summarized in our preliminary report dated October 3, 1985 and were used as the basis of determining costs in this study. They are listed in Section IV (v) of this report.

Post Retirement Mortality

At the time of the July 1, 1985 investigation study, an analysis was also made of mortality after service and after disability retirements. Based on the experience we recommended that the current mortality after service retirement table be set back one year to reflect the longer life expectancies experienced by your group. The life expectancies based on the disability table currently in use were found to be still appropriate at this time. The service and the disability tables are shown in Sections IV (viii) and IV (ix), respectively, at the end of this report.

FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM

Economic Assumptions

Procedure Used to Select Assumptions for Study

To assist in the selection of appropriate interest and salary scale combinations to be used in these studies, we had available a record of the Retirement Fund's investment earnings as well as current salary information of the active members.

The year-end investment yields of the Fund over the 5 years prior to the valuation date were as follows:

	<u>Year Ended</u>	<u>Yield</u>
<div style="border: 1px solid red; padding: 5px; display: inline-block;"> yields for differ from those shown in the respective annual reports </div> →	June 30, 1981	9.0%
	June 30, 1982	10.0%
	June 30, 1983	10.0%
	June 30, 1984	9.8%
	June 30, 1985	11.4%

Not correct
 was 8.7% - should mention it to 9%
 very good summary
 good for City

The 5-year average is approximately 10.0%. Furthermore, the interest earnings were 9% or above in each of the last five years. The present long-term interest rate assumption used by your System is 8-1/2%.

The same factor that has caused interest earnings to rise in the past (inflation) has also caused both the members' salaries and the Consumer Price Index to rise. In order to correlate the recommended long-term investment return with the corresponding appropriate rate of inflation, we again have used the statistical procedures set forth in a published University of Chicago study. This study, (Stocks, Bonds, Bills and Inflation: Simulations of the Future (1976-2000): Roger E. Ibbotson and Rex A. Sinquefeld, Journal of Business, Volume 49, No. 3, July, 1976), analyzes the long-term rates of investment return in relation to various levels of inflation, using results actually achieved during the period 1926-1974.

Based on the above study as it applies to your System, a long-term inflation rate of 6-3/4% is now being used as one appropriate with the long-term interest assumption of 8-1/2%.

In addition to the inflation assumption, "merit and longevity" increases ranging from 7½% to ½% per year (depending on the member's age and service) are included in our salary projections. These average about 1% per year, bringing the present total salary increase assumption to 7-3/4%.

The percentage increases (merit, longevity, and inflation) used in projecting salaries into the future are called "salary scales." These projected salaries are in turn used for

estimating the amounts of pension payable at retirement, as well as other salary-related liabilities. A detailed listing of the salary scales used in the study is shown in Section IV (vii).

Multiple Studies

In connection with this survey, we have again performed more than one valuation of the System by varying the interest rates and the corresponding inflation component of the salary scales used. The purpose of this was to analyze the effect of inflation on the City and member contribution rates.

Study #1 - A valuation using 8-1/2% interest along with salary scales reflecting merit, longevity, and 6-3/4% inflation. This set of economic assumptions is presently in effect.

Study #2 - A valuation using 9% interest along with salary scales reflecting merit, longevity, and 7-1/4% inflation.

Study #3 - A valuation using 9-1/2% interest along with salary scales reflecting merit, longevity, and 7-3/4% inflation.

We feel that the Study #2 economic assumptions are most likely to materialize on a long-term basis.

VALUATION RESULTS

SECTION III

FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM

Contribution Rates

Retirement contribution requirements are divided into two major categories: City and Employee contribution rates. Furthermore, the City Ordinance and the City Code state 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 contribution rates.

In addition, on September 18, 1984, the City Council approved an amendment to the Municipal Code providing paid health insurance premiums for retirees. The cost for this benefit is shared equally between the City and the employees.

A comparison of total basic, cost of living and health insurance City and employee contribution rates follows. This comparison shows rates currently contributed, as well as rates resulting from our new study. For comparison purposes, the recalculated rates are shown at the current 8-1/2% long-term interest assumption as well as the assumption rates of 9% and 9-1/2%.

	Basic, Cost of Living and Health Insurance Contribution Rates as Percentage of Total Payroll	
	<u>City</u>	<u>Employee</u>
Current rates @ 8-1/2% interest	15.72%	7.52%
Recalculated rates:		
<u>Study #1</u> rate @ 8-1/2% interest	15.19%	7.60%
Recommended <u>Study #2</u> rate @ 9% interest <i>0/6/14</i>	14.18%	6.94%
<u>Study #3</u> rate @ 9-1/2% interest	13.26%	6.32%

*10% reduction
in all benefits*

In comparing current rates with those resulting from Study #1, both based on the same economic assumptions, we note a decrease in the City rates and a small increase in the employee rates.

The most important factor tending to decrease the City contribution rates was the 5% increase in the number of active members and the higher than expected yield on investments earned over the last two years. These two items have very little effect on the employee rates as can be seen from the fact that the recalculated employee rate increased slightly.

Basic, Cost of Living and Health Insurance Premium Contribution Rates - Summary

A comparison of the recommended basic, cost of living and health insurance contribution rates (Study #2) and those calculated in Studies #1 and #3, as well as previously developed rates, is shown in Table A following this Section. In addition to the rates, annual contribution amounts are shown based on the total annual salary as of July 1, 1985. It can be seen from this table that the recommended rates resulting from Study #2 are lower than those presently in effect for both, the City and the employees.

The funding of the City basic and cost of living rates reflects the Entry Age Normal Cost method. Under this method, part of the liability (normal cost) is being paid over the future working lifetimes of the members, and part (the supplemental past service cost) is being amortized over 60 years, with 52 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 rates are being partially funded over the next ten years and the cost is shared equally between the City and the employees. The up-dated 10-Year Cost Projection for this program is shown in Table C following this Section.

Recommendations

We recommend that the Retirement Board adopt the Employee and City contribution rates resulting from Study #2. This study assumes a long-term interest rate of 9%, along with total salary increases of 8-1/4% per year. A more detailed breakdown of the recommended contribution rates is shown in Tables A and B following this section.

In this report, we have pointed out for comparison purposes some of the corresponding costs if alternative economic assumptions are used. In addition, we have included in Section III (ii) various funding tests (funding progress ratios). We look forward to meeting with the Board and discussing the various topics covered by this report.

FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM

Present Rates (Before Study)

8-1/2% interest; merit, longevity, and 6-3/4% inflation salary scale

	City		Member	
	<u>% of Payroll</u>	<u>Annual Amount*</u>	<u>% of Payroll</u>	<u>Annual Amount*</u>
Basic	10.94%	\$ 8,129,000	4.68%	\$3,478,000
Cost of Living	3.76	2,794,000	1.82	1,352,000
Health Insurance	<u>1.02**</u>	<u>758,000</u>	<u>1.02**</u>	<u>758,000</u>
Total	15.72%	\$11,681,000 <i>ms</i>	7.52%	\$5,588,000

Rates Updated by 7/1/85 Valuation

Study #1 - 8-1/2% interest; merit, longevity, and 6-3/4% inflation salary scale

	City		Member	
	<u>% of Payroll</u>	<u>Annual Amount*</u>	<u>% of Payroll</u>	<u>Annual Amount*</u>
Basic	10.46%	\$ 7,773,000	4.73%	\$3,515,000
Cost of Living	3.69	2,742,000	1.83	1,360,000
Health Insurance	<u>1.04**</u>	<u>773,000</u>	<u>1.04**</u>	<u>773,000</u>
Total	15.19%	\$11,288,000	7.60%	\$5,648,000

Study #2 - 9% interest; merit, longevity, and 7-1/4% inflation salary scale

	City		Member	
	<u>% of Payroll</u>	<u>Annual Amount*</u>	<u>% of Payroll</u>	<u>Annual Amount*</u>
Basic	9.82%	\$ 7,297,000	4.31%	\$3,203,000
Cost of Living	3.34	2,482,000	1.61	1,196,000
Health Insurance	<u>1.02**</u>	<u>758,000</u>	<u>1.02**</u>	<u>758,000</u> <i>10 yr approach</i>
Total	14.18%	\$10,537,000 <i>ms</i>	6.94%	\$5,157,000

Study #3 - 9-1/2% interest; merit, longevity, and 7-3/4% inflation salary scale

	City		Member	
	<u>% of Payroll</u>	<u>Annual Amount*</u>	<u>% of Payroll</u>	<u>Annual Amount*</u>
Basic	9.23%	\$6,859,000	3.93%	\$2,920,000
Cost of Living	3.04	2,259,000	1.40	1,040,000
Health Insurance	<u>.99**</u>	<u>736,000</u>	<u>.99**</u>	<u>736,000</u>
Total	13.26%	\$9,854,000	6.32%	\$4,696,000

*Contribution amounts are based on total annual payroll on valuation date of \$74,308,000.

**Health Insurance Premium Benefit rates reflect partial, 10-year funding approach.

FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM

Procedure Used in Establishing Contribution Rates

Study #2 - 9% interest; merit, longevity and 7-1/4% 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 52-year amortization of past liability)	
	EMPLOYER	EMPLOYEE	EMPLOYER	EMPLOYEE	EMPLOYER	EMPLOYEE
<u>58:42</u>						
a. Basic	\$ 1,023,000	\$ 741,000	0.11%	0.08%	0.04%	0.09%
b. C.O.L.	1,296,000	938,000	0.14	0.10	0.05	0.13
c. Total	\$ 2,319,000	\$ 1,679,000	0.25%	0.18%	0.09%	0.22%
<u>100:0</u>						
a. Basic	\$ 16,072,000	\$ 0	1.78%	0%	0.61%	0%
b. C.O.L.	10,387,000	0	1.15	0	0.40	0
c. Total	\$ 26,459,000	\$ 0	2.93%	0%	1.01%	0%
<u>8:3</u> <i>Major Cost of plan</i>						
a. Basic	\$ 87,082,000	\$32,656,000	9.67%	3.63%	9.17%	4.22%
b. C.O.L.	30,495,000	11,436,000	3.39	1.27	2.89	1.48
c. Total	\$117,577,000	\$44,092,000	13.06%	4.90%	12.06%	5.70%
<u>50:50</u>						
a. Total*	\$ 6,571,000	\$ 6,571,000	.95%	.95%	1.02%	1.02%
<u>Total</u>						
a. Basic	\$104,177,000	\$33,397,000	11.56%	3.71%	9.82%	4.31%
b. C.O.L.	42,178,000	12,374,000	4.68	1.37	3.34	1.61
c. Health insurance	6,571,000	6,571,000	.95	.95	1.02	1.02
c. Total	\$152,926,000	\$52,342,000	17.19%	6.03%	14.18%	6.94%

*The Health Insurance Premium Benefit liability represents level funding of 10-years' worth of liability.

*Study 2
9/14/82*

SAN JOSE FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM

TABLE C

Retiree Health Insurance 10-Year Cost Projection

<u>Year</u>	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>		<u>(6)</u>
	<u>Annual Cost Per Retiree*</u>	<u>Number of Insured Retirees</u>	<u>Annual Cost = (1) x (2) **</u>	<u>Total Covered Payroll</u>	<u>Cost as Percentage of Payroll (50:50 Basis)</u>		
					<u>Actual Percentage</u>		<u>Level Percentage</u>
1985-86	\$1,813	474	\$ 859,000	\$ 74,845,000	.62%		1.02%
1986-87	1,972	521	1,027,000	80,271,000	.69		1.02
1987-88	2,145	574	1,231,000	86,091,000	.77		1.02
1988-89	2,333	631	1,472,000	92,333,000	.85		1.02
1989-90	2,537	694	1,761,000	99,027,000	.96		1.02
1990-91	2,759	763	2,105,000	106,206,000	1.06		1.02
1991-92	3,000	840	2,520,000	113,906,000	1.19		1.02
1992-93	3,263	924	3,015,000	122,164,000	1.33		1.02
1993-94	3,549	1,016	3,606,000	131,021,000	1.48		1.02
1994-95	3,860	1,118	4,315,000	140,520,000	1.65		1.02

Actuarial Assumptions

Investment Yield:	9.00% per annum.
Growth in Covered Payroll:	7.25% per annum.
Health Premium Cost Increases:	8.75% per year.
Growth in Retiree Rolls:	Based on actual experience.
Funding:	Partial 10-year funding.

* Weighted for single and family health plan coverage.

** An estimated reserve of \$397,000 of assets is available towards the payment of future health insurance premiums.

FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM

Funding Progress of the System

Funding Ratio - "Plan Termination" Assumption

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, in any soundly funded System the assets should be increasing 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.

At the time of each valuation we will compute the ratio of the assets of the System to the obligation for benefits earned to date. We believe that this measure, in combination with a relatively stable contribution rate, will help the Board to more adequately monitor the progress of the funding status of the System. To this end, we include below a comparison of the funding ratios based on the current and new interest rate assumptions:

	Previously Calculated	Recalculated	
	@ 8-1/2%	@ 8-1/2%	@ 9%
(a) Assets as of valuation date	\$156,473,000*	\$199,358,000**	\$199,358,000**
(b) Present value of benefits earned to date assuming immediate 100% vesting	\$146,804,000*	\$175,340,000**	\$165,139,000**
(c) Ratio of assets to benefits earned to date (a) ÷ (b)		107%	114%

*121% - Has to do with
to the funding
Interest rate cost*

*Includes \$9,780,000 payable to brokers.

**Includes accounts payable and the retiree health insurance premium reserve.

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 of active and inactive members 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, 1985. In calculating the funding progress of the System, we have used all of the assets, including all undistributed earnings.

The funding ratio on this basis of 121% as developed in this study compares very favorably to the funding ratios of many public retirement plans. Furthermore, 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, there would be enough money on hand to pay off all of the obligations accrued through that date.

FASB 35 - "Plan Continuation" Assumption Without Future Salary Increases

In addition to the Funding Progress Ratio, we have also developed a funding ratio based on the actuarial liabilities as defined by the Financial Accounting Standards Board (Statement #35 (FASB 35)). The FASB 35 liabilities assume an ongoing plan, i.e., they include future withdrawals and disability retirements, whereas the Funding Progress "Plan Termination" liabilities exclude these. All of the other assumptions used are the same under both ratios.

The FASB 35 liability and funding ratio as of July 1, 1985, based on the 9% interest rate assumption, are as follows:

(1) FASB 35 present value of benefits		
a. Retired members	\$ 85,427,000	
b. Vested active and inactive members	83,107,000	<i>not project</i>
c. Non-vested active members	2,905,000	
d. Other*	<u>536,000</u>	
Total FASB 35 liability	\$171,975,000	
(2) Assets @ book value*	\$199,358,000	
(3) Funding ratio (2) ÷ (1)		116% <i>increased from last yr.</i>

NCGA #6 - "Plan Continuation" Assumption With Future Salary Increases

New - Future Salary Increases
A new measurement of assets to liabilities is shown here. The difference between National Council of Governmental Accounting Statement #6 liabilities and those of FASB 35 is that the NCGA #6 liability uses salaries projected into the future reflecting our actuarial assumptions.

The NCGA #6 liability and funding ratio as of July 1, 1985, based on the 9% interest and 8-1/4% merit and longevity and inflationary salary scale assumptions, are as follows:

(1) NCGA #6 present value of benefits		
a. Retired members	\$ 85,427,000	
b. Vested active and inactive members	164,951,000	<i>already earned</i>
c. Non-vested active members	10,131,000	
d. Other*	<u>536,000</u>	
Total NCGA #6 Liability	\$261,045,000	
(2) Assets @ book value*	\$199,358,000	<i>6.2 m</i>
(3) Funding ratio (2) ÷ (1)		76% <i>True picture</i>

The liabilities shown in this Section are based on an interest assumption reflecting the cost value basis of the assets. For that reason, the comparisons are made with assets at cost value rather than market value.

*Both the liabilities and the assets include accounts payable and the retiree health insurance premium reserve. *400,000, - accounted - not yet used* *not yet used inside*

FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEMActuarial 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.

<u>Item Number</u>	<u>Explanation</u>
1.	The total assets in the Retirement Fund as of June 30, 1985, taken from the Accounting Balance Sheet.
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, 1985, 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 10 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.
8.	The present value of termination benefits payable due to the withdrawal (refund) of currently active or inactive members.
9.	The present value of the health insurance premiums that will be payable on account of present and future retirees over the next 10 years.
10.	The reserves held for future adverse experience.

SAN JOSE
FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL BALANCE SHEET*

As of July 1, 1985

<u>ASSETS</u>			
	<u>Basic</u>	<u>C.O.L.</u>	<u>Total</u>
1. Total assets now held	\$159,247,000**	\$40,111,000	\$199,358,000
2. Present value of future contributions by members			
a) Retirement (Basic 4.31%; C.O.L. 1.61%)	38,807,000	14,496,000	53,303,000
b) Health insurance (1.02%)	7,080,000	-	7,080,000
3. Present value of future contributions by City on account of			
a) Retirement			
i) Normal cost (Basic 8.91%; C.O.L. 2.62%)	80,225,000	23,590,000	103,815,000
ii) Unfunded supplemental cost (Basic .91%; C.O.L. .72%)	23,964,000	18,491,000	42,454,000
b) Health insurance (1.02%)	7,080,000	-	7,080,000
4. Total actuarial assets	<u>\$316,403,000</u>	<u>\$96,688,000</u>	<u>\$413,091,000</u>

Part of funding spread over 5 or 6 years

<u>LIABILITIES</u>			
	<u>Basic</u>	<u>C.O.L.</u>	<u>Total</u>
5. Present value of retirement allowances payable to present retired members	\$ 58,698,000	\$26,729,000	\$ 85,427,000
6. Present value of retirement allowances to be granted:			
a) Service retirement	190,672,000	55,419,000	246,091,000
b) Ordinary disability	14,425,000	4,120,000	18,545,000
c) Duty disability	12,830,000	3,712,000	16,542,000
7. Present value of death benefits to be granted	9,116,000	2,857,000	11,973,000
8. Present value of members' retirement contributions to be returned upon withdrawal or death before retirement			
a) Past contributions	6,185,000	1,795,000	7,980,000
b) Future contributions	5,422,000	2,025,000	7,447,000
9. Present value of health insurance premiums payable on account of current and future retirees over the next 10 years**	14,557,000	-	14,557,000
10. Contingency reserve - undistributed earnings	4,390,000	-	4,390,000
11. Accounts payable	108,000	31,000	139,000
12. Total actuarial liabilities	<u>\$316,403,000</u>	<u>\$96,688,000</u>	<u>\$413,091,000</u>

*Based on an interest rate of 9% per annum and total salary increases of 8-1/4% per year.

**Includes \$397,000 as the estimated Health Insurance Premium Benefit Reserve.

APPENDIX
SECTION IV

FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM

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, 1985.

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 5 years of service may elect to leave his or her contributions and receive a deferred retirement benefit at age 55.

Death Benefit Before Retirement

- a. If the member's death is service connected, or, if non-service connected, and the member has at least 5 years of service, the spouse receives an allowance of $2\frac{1}{2}\%$ times final average salary times years of service (minimum of 40% of final average salary and maximum of 75% of final average salary). 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 beneficiary receives the return of the member's contributions plus one month's salary for each year of service up to 6 years.

Death Benefit After Retirement

- a. If a member dies after retirement, a lump sum amount of \$500 is paid to the beneficiary 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 member'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 member's benefit.

Disability Retirement

a. Requirement

- (1) Members with at least 5 years of service and under age 55 are eligible for non-service 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 non-service connected disability benefit is 40% of final average salary, but not less than the service retirement benefit. The benefit is subject to a reduction equal to 1/2% of final average salary for each year of age (or fraction thereof) under age 55.
- (2) The benefit for service-connected disability is 40% of final average salary but not less than the service retirement benefit.

Service Retirement

a. Requirement

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

b. Benefit

The retirement allowance payable is the final average salary (highest 3 consecutive years) multiplied by 2½% per year. The maximum benefit is 75% of final average salary.

Cost of Living

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

Post-Retirement Health Insurance

The new post-retirement health insurance benefit is actually not part of the City's Retirement Program. This 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 service connected disability are eligible.

The City and the members each contribute 1.02% of pay towards the post-retirement health insurance program.

Members' Retirement Contributions (Basic and Cost of Living)

The members' contribution rates toward the Retirement Program are recalculated on an actuarial basis at each actuarial study. The members presently contribute at the rate of 6.50% of pay.

City Retirement Contributions (Basic and Cost of Living)

The City presently contributes toward the Retirement Program at a rate of 14.70% of pay of 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.

FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEMSummary of Assumptions and Funding MethodAssumptions**Valuation Interest Rate****9%**

Post-Retirement Mortality

(a) Service

Males

1971 Male Group Annuity Mortality table with a one year setback

Females

1971 Female Group Annuity Mortality Table with a one year setback

(b) Disability

1981 Disability Mortality Table

Pre-Retirement Mortality

Based upon the Experience Analysis

Withdrawal Rates

Based upon the Experience Analysis

Disability Rates

Based upon the Experience Analysis

Service Retirement Rates

Based upon the Experience Analysis

Salary Scales**Merit and longevity plus 7-1/4% inflation per year. Merit and longevity is approximately equivalent to a 1% increase per year.**

Assets

Valued at Book

Funding Method

The actuarial liability is being funded using the Entry Age Normal Method with a Supplemental Present Value. The amortization period for the Supplemental Present Value is 52 years from the July 1, 1985 valuation date.

SAN JOSE
FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM

SECTION IV (iii)

TOTAL ANNUAL SALARY* AND MEMBERSHIP DISTRIBUTION

OF ACTIVE MEMBERS

AS OF JUNE 30, 1985

MALE

YEARS OF SERVICE

PRESENT AGE	YEARS OF SERVICE							TOTAL
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 & OVER	
BELOW 20	2 47,299							2 47,299
20 - 24	45 959,523	2 40,913						47 1,000,436
25 - 29	95 2,235,315	67 1,740,433						162 3,975,748
30 - 34	103 2,830,188	105 2,977,302	33 896,729	1 21,611				242 6,725,830
35 - 39	78 2,352,542	91 2,858,080	117 3,660,128	21 655,866				307 9,526,616
40 - 44	46 1,511,078	54 1,879,550	72 2,542,049	45 1,612,351	23 824,594			240 8,369,622
45 - 49	27 1,000,957	34 1,236,829	52 1,814,443	32 1,159,040	35 1,199,574	14 511,326		194 6,922,169
50 - 54	18 617,261	33 1,007,092	35 1,171,059	38 1,366,665	34 1,120,702	44 1,534,689	1 35,194	203 6,852,662
55 - 59	8 251,014	19 582,088	32 1,054,432	16 610,292	25 842,545	18 666,430	2 47,611	120 4,054,412
60 - 64	3 88,296	10 347,629	15 430,351	13 445,971	6 177,880	12 406,348	3 143,333	62 2,039,808
65 - 69			10 310,689	1 36,234	1 21,611	1 45,136		13 413,670
70 & OVER				1 38,584			1 29,952	2 68,536
TOTAL	425 11,893,473	415 12,669,916	366 11,879,880	168 5,946,614	124 4,186,906	89 3,163,929	7 256,090	1,594 49,996,808

AVERAGE AGE 41.50
AVERAGE SERVICE 10.00
AVERAGE ENTRY AGE 31.50

*The salary for part-time employees reflects the annualized rate of pay rather than the actual salary.

SAN JOSE
FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM

SECTION IV (iii)

TOTAL ANNUAL SALARY* AND MEMBERSHIP DISTRIBUTION

OF ACTIVE MEMBERS

AS OF JUNE 30, 1985

FEMALE

YEARS OF SERVICE

PRESENT AGE	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 & OVER	TOTAL
BELOW 20	1 17,347							1 17,347
20 - 24	41 771,307	4 86,216						45 857,523
25 - 29	70 1,523,791	39 939,846	2 50,086					111 2,513,723
30 - 34	58 1,411,800	43 1,114,819	26 688,500					127 3,215,119
35 - 39	66 1,606,553	61 1,634,192	42 1,283,070	12 337,522				181 4,861,337
40 - 44	59 1,374,982	35 845,497	34 1,012,836	19 535,599	6 192,232			153 3,961,146
45 - 49	32 759,307	30 708,197	24 690,372	15 457,371	9 259,585	8 240,613		118 3,115,445
50 - 54	11 258,544	28 666,101	32 837,759	12 329,617	8 238,637	2 39,229	2 65,395	95 2,435,282
55 - 59	8 171,933	21 539,821	33 793,041	15 438,588	3 94,203	1 28,808	3 90,002	84 2,156,396
60 - 64	5 111,404	15 361,129	19 443,686	10 249,661	3 91,146			52 1,257,026
65 - 69	1 42,557	4 98,134	7 181,876	3 75,712				15 398,279
70 & OVER			3 59,218					3 59,218
TOTAL	352 8,049,525	280 6,993,952	222 6,040,444	86 2,424,070	29 875,803	11 308,650	5 155,397	985 24,847,841

AVERAGE AGE 41.75
AVERAGE SERVICE 7.50
AVERAGE ENTRY AGE 34.25

*The salary for part-time employees reflects the annualized rate of pay rather than the actual salary.

FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEMSummary of Members on Pension Roll and
Amounts of Allowances by Type of Retirement

<u>Option</u>	<u>Number</u>	<u>Basic Monthly Allowances</u>	<u>Cost of Living</u>		<u>Total Monthly Allowances</u>
			<u>Regular</u>	<u>Permanent</u>	
<u>SERVICE RETIREMENTS</u>					
1	58	\$ 21,818	\$ 9,000	\$ 3,954	\$ 34,772
2	34	9,278	2,054	1,042	12,374
3	18	8,131	4,122	1,848	14,101
4	5	3,735	2,222	897	6,854
5	460	399,459	42,530	-	441,989
8	2	170	-	-	170
9	<u>26</u>	<u>6,646</u>	<u>2,864</u>	<u>1,291</u>	<u>10,801</u>
TOTAL	603	\$449,237	\$62,792	\$ 9,032	\$521,061
<u>DISABILITY RETIREMENTS</u>					
1	3	\$ 539	\$ 373	\$ 281	\$ 1,193
2	-	-	-	-	-
3	-	-	-	-	-
4	-	-	-	-	-
5	78	54,649	6,754	-	61,403
8	-	-	-	-	-
9	<u>9</u>	<u>2,676</u>	<u>1,245</u>	<u>834</u>	<u>4,755</u>
TOTAL	90	\$ 57,864	\$ 8,372	\$ 1,115	\$ 67,351
<u>BENEFICIARIES</u>					
TOTAL	<u>81</u>	<u>\$ 32,072</u>	<u>\$ 7,636</u>	<u>\$ 1,623</u>	<u>\$ 41,331</u>
GRAND TOTAL	<u>774</u>	<u>\$539,173</u>	<u>\$78,800</u>	<u>\$11,770</u>	<u>\$629,743</u>

SAN JOSE
FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM

SECTION IV (v)

Male Members

Probabilities of Separation Prior to Retirement

<u>Age</u>	<u>Withdrawal</u>	<u>Ordinary Death</u>	<u>Ordinary Disability</u>	<u>Service</u>	<u>Death While Eligible</u>	<u>Duty Disability</u>	<u>Vested Termination</u>
20	.2000	.0004	.0000	.0000	.0000	.0005	.0000
21	.1850	.0004	.0000	.0000	.0000	.0005	.0000
22	.1700	.0004	.0000	.0000	.0000	.0005	.0000
23	.1550	.0004	.0000	.0000	.0000	.0005	.0000
24	.1400	.0004	.0000	.0000	.0000	.0005	.0000
25	.1250	.0004	.0002	.0000	.0002	.0005	.0014
26	.1120	.0004	.0002	.0000	.0002	.0006	.0015
27	.1000	.0004	.0002	.0000	.0002	.0006	.0016
28	.0900	.0005	.0002	.0000	.0002	.0007	.0017
29	.0820	.0005	.0002	.0000	.0002	.0007	.0018
30	.0750	.0005	.0003	.0000	.0002	.0007	.0020
31	.0690	.0005	.0003	.0000	.0003	.0007	.0023
32	.0630	.0005	.0003	.0000	.0003	.0007	.0027
33	.0580	.0006	.0003	.0000	.0004	.0007	.0031
34	.0530	.0006	.0003	.0000	.0004	.0008	.0034
35	.0480	.0006	.0004	.0000	.0004	.0008	.0039
36	.0430	.0007	.0004	.0000	.0005	.0008	.0045
37	.0370	.0007	.0005	.0000	.0005	.0008	.0054
38	.0310	.0008	.0006	.0000	.0005	.0009	.0064
39	.0270	.0008	.0006	.0000	.0006	.0009	.0072
40	.0240	.0009	.0007	.0000	.0006	.0009	.0079
41	.0220	.0009	.0007	.0000	.0007	.0010	.0089
42	.0200	.0009	.0008	.0000	.0008	.0010	.0098
43	.0190	.0009	.0008	.0000	.0009	.0010	.0096
44	.0175	.0010	.0009	.0000	.0011	.0010	.0092
45	.0160	.0010	.0010	.0000	.0013	.0010	.0091
46	.0145	.0010	.0011	.0000	.0015	.0011	.0089
47	.0130	.0011	.0012	.0000	.0017	.0012	.0087
48	.0115	.0011	.0013	.0000	.0019	.0013	.0082
49	.0095	.0012	.0015	.0000	.0020	.0014	.0074
50	.0080	.0013	.0018	.0000	.0022	.0016	.0061
51	.0065	.0014	.0021	.0000	.0024	.0020	.0043
52	.0050	.0015	.0024	.0000	.0026	.0024	.0025
53	.0035	.0016	.0030	.0000	.0027	.0030	.0013
54	.0020	.0017	.0038	.0000	.0029	.0037	.0008
55	.0020	.0018	.0050	.2500	.0032	.0044	.0000
56	.0020	.0019	.0062	.0800	.0035	.0052	.0000
57	.0020	.0020	.0075	.0700	.0038	.0062	.0000
58	.0020	.0021	.0089	.1000	.0042	.0075	.0000
59	.0020	.0022	.0107	.1000	.0046	.0093	.0000
60	.0000	.0023	.0141	.1000	.0050	.0115	.0000
61	.0000	.0024	.0175	.1100	.0053	.0138	.0000
62	.0000	.0025	.0210	.3500	.0057	.0166	.0000
63	.0000	.0026	.0247	.1200	.0061	.0202	.0000
64	.0000	.0027	.0290	.1500	.0065	.0244	.0000
65	.0000	.0028	.0336	.3000	.0068	.0290	.0000
66	.0000	.0029	.0000	.4000	.0072	.0000	.0000
67	.0000	.0030	.0000	.5000	.0076	.0000	.0000
68	.0000	.0032	.0000	.5000	.0080	.0000	.0000
69	.0000	.0033	.0000	.5000	.0084	.0000	.0000
70	.0000	.0000	.0000	1.0000	.0000	.0000	.0000

FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEMAccounting Balance Sheet
As of June 30, 1985

	<u>Basic Retirement Fund</u>	<u>Cost of Living Fund</u>	<u>Combined Retirement System</u>
<u>Assets</u>			
1. Cash in bank	\$ 1,887,515	\$ 65,138	\$ 1,952,653
2. Contributions receivable:			
a. Employee	159,786	51,022	210,808
b. Employer	335,276	105,405	440,681
c. Broker	216	228	444
3. Accrued interest receivable	2,596,809	674,026	3,270,835
4. Investments (Book Value)	153,877,991	39,107,540	192,985,531
5. Amortization discount/premium on purchased securities	<u>389,145</u>	<u>107,390</u>	<u>496,535</u>
6. Total Assets	<u>\$159,246,738</u>	<u>\$40,110,749</u>	<u>\$199,357,487</u>
<u>Liabilities and Reserves</u>			
7. Accounts payable	\$ 107,839	\$ 30,548	\$ 138,387
8. Employee contributions	35,326,929	8,198,998	43,525,927
9. Employer contributions	39,539,471	19,187,367	58,726,838
10. Retired reserve	71,469,871	510,922	71,980,793
11. Benefits payable reserve*	8,412,540	-	8,412,540
12. Undistributed earnings	<u>4,390,088</u>	<u>12,182,914**</u>	<u>16,573,002</u>
13. Total Liabilities & Reserves	<u>\$159,246,738</u>	<u>\$40,110,749</u>	<u>\$199,357,487</u>

*\$5,829,568 has been transferred from the Undistributed Earnings Reserve (Item 12) to the Benefits Payable Reserve (Item 11) in the Basic Retirement Fund as per Section 3.28.340. This reserve includes the \$397,459 Health Insurance Premium Benefit reserve.

**All of the undistributed earnings in the Cost of Living Fund have been used as assets in calculating the required cost of living contribution rates.

FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEMRatio of Current Compensation to
Compensation Anticipated at Age 70

<u>Age</u>	<u>Study #1</u>	<u>Study #2</u>	<u>Study #3</u>	<u>Age</u>	<u>Study #1</u>	<u>Study #2</u>	<u>Study #3</u>
20	.015	.012	.009	50	.238	.217	.198
21	.016	.013	.010	51	.256	.235	.215
22	.018	.015	.012	52	.276	.254	.233
23	.021	.017	.013	53	.297	.274	.254
24	.023	.019	.015	54	.319	.296	.275
25	.026	.021	.017	55	.343	.320	.298
26	.029	.023	.019	56	.369	.345	.324
27	.032	.026	.021	57	.396	.372	.351
28	.035	.029	.024	58	.425	.402	.380
29	.039	.032	.027	59	.456	.433	.412
30	.044	.036	.030	60	.490	.468	.447
31	.048	.040	.033	61	.527	.505	.484
32	.053	.044	.037	62	.565	.544	.525
33	.058	.049	.041	63	.607	.588	.569
34	.063	.059	.045	64	.652	.634	.617
35	.069	.059	.050	65	.700	.684	.669
36	.076	.065	.055	66	.752	.738	.724
37	.083	.071	.061	67	.807	.796	.785
38	.090	.078	.067	68	.867	.859	.851
39	.098	.085	.073	69	.931	.927	.923
40	.107	.093	.081	70	1.000	1.000	1.000
41	.116	.101	.089				
42	.126	.111	.097				
43	.137	.121	.107				
44	.149	.132	.117				
45	.162	.144	.128				
46	.175	.157	.140				
47	.189	.170	.153				
48	.205	.185	.167				
49	.221	.200	.182				

Study #1 = Merit and longevity plus 6-3/4% increase per year.

Study #2 = Merit and longevity plus 7-1/4% increase per year.

Study #3 = Merit and longevity plus 7-3/4% increase per year.

FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEMYears of Life Expectancy after Service Retirement

<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Age</u>	<u>Male</u>	<u>Female</u>
50	27.78	33.54	80	7.41	9.40
51	26.91	32.61	81	7.00	8.88
52	26.05	31.67	82	6.63	8.37
53	25.20	30.75	83	6.27	7.89
54	24.36	29.82	84	5.94	7.43
55	23.53	28.90	85	5.63	6.99
56	22.71	27.99	86	5.34	6.57
57	21.90	27.08	87	5.06	6.16
58	21.10	26.17	88	4.80	5.77
59	20.31	25.28	89	4.55	5.40
60	19.53	24.39	90	4.31	5.04
61	18.76	23.50	91	4.08	4.70
62	18.00	22.63	92	3.87	4.38
63	17.26	21.77	93	3.66	4.07
64	16.53	20.91	94	3.46	3.77
65	15.81	20.07	95	3.26	3.50
66	15.11	19.24	96	3.07	3.23
67	14.43	18.42	97	2.89	2.98
68	13.77	17.62	98	2.71	2.76
69	13.13	16.82	99	2.54	2.54
70	12.50	16.03	100	2.37	2.34
71	11.91	15.26	101	2.20	2.14
72	11.33	14.50	102	2.04	1.95
73	10.79	13.78	103	1.88	1.78
74	10.26	13.07	104	1.72	1.61
75	9.74	12.40	105	1.55	1.44
76	9.24	11.75	106	1.38	1.28
77	8.76	11.12	107	1.21	1.13
78	8.28	10.53	108	1.04	.98
79	7.83	9.95	109	.88	.84
			110	.71	.69
			111	.50	.50

1971 GA (x-1) (y-1)

FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEMYears of Life Expectancy after Disability Retirement

<u>Age</u>	<u>Male & Female</u>	<u>Age</u>	<u>Male & Female</u>	<u>Age</u>	<u>Male & Female</u>
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

1981 Disability Table