REPORT ON

ACTUARIAL INVESTIGATION AND VALUATION OF THE

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

JUNE 30, 1983

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February 14, 1984

Board of Administration
City Employees' Retirement System
Room 505, City Hall South
111 East First Street
Los Angeles, California 90012

Members of the Board:

We are pleased to transmit herewith our Report setting forth the results of the investigation and valuation of your Retirement System as of June 30, 1983.

The valuation was based on financial statements and employee data furnished by the Retirement Office.

We would like to take this opportunity to express our appreciation for the courtesy and cooperation accorded us by the Retirement Office during the course of our work.

Respectfully submitted,

TOWERS, PERRIN, FORSTER & CROSBY

Jon L. King, F.S.A.
Principal

JLK/ts
Enclosure

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REPORT ON ACTUARIAL INVESTIGATION AND VALUATION OF THE LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

SECTION I

INTRODUCTION

In accordance with our agreement with you and with the provisions of the City Charter, we have completed an investigation into the mortality, service, and compensation experience of members and beneficiaries under the System during the period July 1, 1980 through June 30, 1983. On the basis of the assumptions derived from this investigation and the rates of interest and salary increase that have been assumed, we have completed an actuarial valuation of the assets and liabilities of the System as of June 30, 1983.

The Retirement Office furnished us with magnetic tapes containing detailed employee information on all active members of the System as of June 30, 1983 as well as information on all persons who have been members of the System but who had separated during the previous three years. We were also given a tape containing information on all members receiving retirement allowances as of June 30, 1983 and information on retired members who died during the previous three years.

The following schedule shows a summary of the membership of the System as of June 30, 1983.

SUMMARY OF MEMBERSHIP OF SYSTEM AS OF JUNE 30, 1983

ACTIVE MEMBERS

	Number	Annual Salary	Average Age	Average Monthly Salary
Total 6-30-82	18,661	$ 431,723,128	42.2	$ 1,928
Total 6-30-83	17,997	442,654,872	42.5	2,050
Percent Increase	- 3.6%	+ 2.5%	--	+ 6.3%

PENSIONERS

	Number	Annual Allowance	Average Monthly Allowance
Total 6-30-82	7,819	$ 62,853,040	670
Total 6-30-83	8,497	79,355,408	778
Percent Increase	+ 8.7%	+26.3%	+16.1%

The Retirement Office also furnished us with an accounting balance sheet setting forth the assets and liabilities of the System as of June 30, 1983. We did no physical audit of these assets and our calculations are based on the balance sheet as submitted.

SECTION II

SUMMARY OF ACTUARIAL INVESTIGATION

To carry out an actuarial valuation of the assets and liabilities of the System, the actuary must first adopt assumptions about the following items:

1. Interest earnings that will be realized on the funds over many years in the future.

2. The relative increases in the salary of a member from the date of the valuation to the date of separation from active service.

3. Increases in the cost-of-living index which would increase allowance payments to retired employees.

4. The mortality rates to be experienced among retired persons.

5. The probabilities of members separating from active service on account of withdrawal, death, disability, and service retirement.

We have examined the experience of the members of your Plans during the three-year period ending June 30, 1983. We set forth in the following paragraphs of this section a discussion of the above items. The Schedules in Section VII set forth the probabilities of separation from active service used in the current valuation.

A. INTEREST EARNINGS, SALARY INCREASES, AND COST-OF-LIVING INCREASES

We would like to consider these three items together since their levels are all strongly influenced by the level of inflation. A variety of studies lead us to believe that interest earnings over long periods are equal to inflation plus a real return of about 3%. Other studies indicate that salary increases over long periods are equal to inflation plus merit or productivity increases. The financial effect of the merit increase can be approximated by an increase of about 1/2% to 1% per year. Conventional actuarial practice then leads us to believe that a "spread" of about 2% or 2-1/2% between the interest and salary assumptions is proper. Despite recent experience, this spread has been shown to be plausible over long periods of history.

We concur with the Board's decision to continue using 8% as the interest earnings assumption. This interest assumption translates into a 5% inflation assumption (8% less 3% real return). The Board has also decided to maintain a 5-3/4% annual salary increase assumption. Finally, since the inflation rate implied by these rates is well above the 3% cost-of-living "cap," we continue to assume that future cost-of-living increases will be the full 3%.

B. MORTALITY AFTER SERVICE RETIREMENT

During the last three years there were 453 deaths among members on service retirement. Under the assumptions developed and used for the 1982 Report, one would have expected 556 deaths. While the investigation does indicate a continued improvement in longevity for service retirements, we feel that the degree of improvement does not warrant a significant change in assumptions at the present time. We therefore recommend that the current mortality assumptions for service retirements continue unchanged.

C. MORTALITY AFTER DISABILITY RETIREMENT

Thirty-three deaths occurred among members during the last three years and the mortality table currently in use "expected" 69 such deaths.

Some time ago, we contributed data to a California Public Sector Postdisablement Mortality Study. The study resulted in the 1981 Disability Tables for Safety and Miscellaneous (non-Safety) Members, which have been used for this report. Because of the increased longevity noted in the investigation, we recommend adoption of the 1981 Disability Tables.

D. RATES OF SEPARATION FROM ACTIVE SERVICE

The results of the investigation with respect to rates of separation from active service are summarized on the following page. As the summary indicates we have increased the service retirement and male disability retirement assumptions.

The terminology used in the headings of the summary should be interpreted cautiously. The "old" expected separations are based on the rates adopted for the June 30, 1980, 1981, and 1982 valuations. The "new" expected separations are based on the rates adopted for the current valuation. By "expected separation" we mean the number of terminations that would occur if the assumed probabilities (either "old" or "new") were applied to your actual work force over the last three years. "Expected separations" is not a prediction of what is expected over the next three years. It would only be a fairly accurate prediction if the sex, age, and service characteristics of the active group over the next three years are similar to those that existed over the previous three years.

SUMMARY OF ACTUARIAL INVESTIGATION WITH RESPECT TO RATES OF SEPARATION FROM ACTIVE SERVICE

	Actual Separations	"Old" Expected Separations	"New" Expected Separations
WITHDRAWAL			
Male Members	2,254	2,778	2,778
Female Members	2,036	2,025	2,025
DEATHS*			
Male Members	155	169	169
Female Members	27	28	28
DISABILITY RETIREMENT			
Male Members	69	88	78
Female Members	16	13	13
SERVICE RETIREMENT			
Male Members	1,330	1,183	1,330
Female Members	218	268	218

* Includes Ordinary Death, Death While Eligible for Service Retirement, and Death While Eligible for Disability.

SECTION III

MEMBER CONTRIBUTIONS

Sections 4.1031 and 4.1040(C) of the Administrative Code specify the basis for normal, survivor, and cost-of-living member contribution rates. However, Los Angeles City also enters into collective bargaining agreements with its employees regarding the level of member contributions. The resulting rates need not be those indicated by the ordinance formulas and the current assumptions. To reflect this situation accurately in the current valuation, we have been directed by the Board of Administration to assume that members who have entered the System before February 1, 1983 will contribute at the employee contribution rates specified in the June 30, 1977 valuation report. If certain members contribute at a lower rate through a collective bargaining agreement, the City should contribute 67.28% of the amount of contribution "forgiven" the member.

A complete list of member contribution rates from the June 30, 1977 valuation report is also in Section VII. The following table illustrates these rates:

Member Rates of Contribution Including 15% Factor for COL

Age	Normal	Continuance	Total
20	8.20%	.44%	8.64%
25	8.58	.63	9.21
30	9.06	.75	9.81
35	9.61	.83	10.44
40	10.19	.91	11.10
45	10.76	.97	11.73
50	11.34	1.03	12.37
55	11.85	1.09	12.94

In addition, members who enter the System on or after February 1, 1983 contribute at a rate of 6%.

The monthly contribution of $5.14 per participating member should be continued for Family Death Benefits until modified by future study.

SECTION IV

RESULTS OF THE ACTUARIAL VALUATION

Introduction

The purpose of the actuarial valuation is to analyze the financial condition of the System and to recommend any necessary changes in City contributions. In this section we describe the funding method of the System and give the resulting actuarial balance sheet as of June 30, 1983. Section V gives the recommended City contributions called for by the funding method. Section VI presents various views of the funding progress of the System, including the change in accrued liability over the year as defined by the Financial Accounting Standards Board. Throughout the report, all calculations are based on the actuarial assumptions as discussed in Section II. The "Beta" formula was applied to all active members.

Funding Method

The primary funding method of the Los Angeles City Retirement System is the Projected Unit Credit Cost funding method. This method defines the Normal Cost as the present value, based on each member's attained age, of that portion of the total projected benefits deemed to be earned during the current year. The City's Normal Cost is the excess of the Normal Cost over members' contributions. The Actuarial Accrued Liability is equal to the present value of all benefits allocated to years prior to the current year. The excess of the Actuarial Accrued Liability over the assets is called the Unfunded Actuarial Accrued Liability (UAAL). The Unfunded Actuarial Accrued Liability is amortized over a fixed period of years by City contributions in addition to Normal Cost. Most of the Unfunded Actuarial Accrued Liability is amortized over the period ending

June 30, 2004 by contributions that will increase in accordance with the salary scale, i.e., 5-3/4% per year. Certain small liabilities are amortized over shorter periods by level dollar amounts.

The Projected Unit Credit Cost Method is used to fund all benefits except Family Death Benefits. For Family Death Benefits, the amount contributed in any one year is the present value of expected claims arising during the year. This method is called the Term Cost Funding Method. Traditionally, the required contribution has been reviewed biennially following the valuation.

Accounting Balance Sheet

Our valuation of the Retirement System as of June 30, 1983 was based on the accounting balance sheet furnished by the Retirement Office as shown on the following page. We accepted this statement of assets without audit.

The total value of applicable assets for this valuation of the Retirement System as of June 30, 1983 was determined as follows:

1.	Total assets	$ 1,154,388,667
2.	Less reserves and liabilities established for the following:	
	a. family death benefit insurance	$ 9,000,473
	b. gain/loss on equities	12,655,455
	c. 20% of undistributed earnings	1,768,362
	d. total	23,424,290
3.	Net applicable assets as of June 30, 1983 (item 1 less item 2(d))	1,130,964,377

CITY OF LOS ANGELES
CITY EMPLOYEES' RETIREMENT SYSTEM

UNAUDITED
PRELIMINARY

STATEMENTS OF NEW ASSETS AVAILABLE FOR PLAN BENEFITS

	June 30			
	1983		1982	
SETS:				
Cash	$	$ 12,883,984	$	$ 4,153,976
Receivables:				
Accrued Interest and Dividend Income	20,998,821		20,062,778	
Other Receivables	1,838,689		1,475,594	
Proceeds from Sale of Investments	14,564,856	37,402,366	2,021,132	23,559,504
ESTMENTS (Note):				
Temporary Short-Term	63,537,239		160,535,004	
Bonds	792,140,194		683,142,397	
Common Stocks	252,852,897	1,108,530,330	158,959,874	1,002,637,275
		1,158,816,680		1,030,350,755
ARNED PREMIUM FROM SALE OF STOCK OPTIONS		(129,932)		(1,258,675)
ARNED PREMIUM FROM SALE OF BOND OPTIONS		(42,189)		-
OUNTS PAYABLE AND ACCRUED EXPENSES		(4,255,892)		(1,806,753)
ET ASSETS AVAILABLE FOR PLAN BENEFITS		$1,154,388,667		$1,027,285,327
BERS' CONTRIBUTIONS		$250,516,756		$239,310,491
ESERVE FOR RETIREMENT ALLOWANCES FOR RETIRED MEMBERS' AT ACTUARIAL VALUATION		761,152,367		761,152,367
Y CONTRIBUTIONS AVAILABLE FOR FUTURE RETIREES		142,719,544		26,822,469
AL		$1,154,388,667		$1,027,285,327

) Deduction

I hereby certify that in my opinion the accompanying unaudited Balance Sheet and Statement Changes in Net Assets available for Plan Benefits fairly present the accounting position of he City Employees' Retirement System of the City of Los Angeles, as of June 30, 1983, and the sults of its operation during the fiscal year then ended. The Reserve for Retirement allowances Retired Members' at Actuarial Valuation was calculated as of June 30, 1982.

JERRY F. BARDWELL, Manager

UNAUDITED
PRELIMINARY

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

STATEMENT OF RESERVE AND FUND BALANCE ACCOUNTS

JUNE 30, 1983

	JUNE 30 1983	1982
ACTUARIAL		
Member Contributions	$250,516,756	$239,310,491
Annuities	154,617,284	132,832,231
Subsequent Service	513,932,913	452,299,740
Cost of Living	204,823,975	177,745,337
Family Death Benefit Insurance	9,000,473	8,217,291
Total Actuarial	$1,132,891,401	$1,010,405,090
OTHER		
Undistributed Earnings	$8,841,811	$8,932,244
Gain/Loss on Equities	12,655,455	7,947,994
Fund Balance	-0-	-0-
Total Other	$21,497,266	$16,880,238
Total Reserves & Fund Balance	$1,154,388,667	$1,027,285,328

Actuarial Balance Sheet

This actuarial valuation of the Retirement System as of June 30, 1983 is based on demographic assumptions developed during the concurrent investigation and on an 8% interest assumption, a 5-3/4% salary increase assumption and a 3% future cost-of-living increase. The resulting values of assets and liabilities developed by the valuation are set forth in the following Actuarial Balance Sheet.

Los Angeles City Employees'
Retirement System

ACTUARIAL BALANCE SHEET

AS OF JUNE 30, 1983

ASSETS

1. Total Applicable Assets				$1,130,964,377
2. Present Value of Future Contributions of Members				344,471,800
3. Present Value of Future Contributions by the City on Account of:				
a. Basic Pensions:				
i. Normal Cost			$185,493,900	
ii. Amortization of Certain Liabilities:				
- Prior Service Pensions	$ 7,650,281			
- Increase due to 1965 Amendments	3,158,325			
- Remaining Unfunded Actuarial Accrued Liability	372,683,379		383,491,985	
b. Cost-of-Living Pensions:				
i. Normal Cost			96,208,700	
ii. Amortization of Certain Liabilities:				
- Increase due to 1967 Amendments	14,811,159			
- Remaining Unfunded Actuarial Accrued Liability	297,061,345		311,872,504	977,067,089
4. Total Assets				2,452,503,266

ACTUARIAL BALANCE SHEET

AS OF JUNE 30, 1983

LIABILITIES

5. Present Value of Benefits Already Granted:		
a. Basic	$ 635,563,818	
b. Cost-of-Living	355,234,948	$ 990,798,766
6. Present Value of Benefits to Be Granted:		
a. Basic	$1,136,794,100	
b. Cost-of-Living	324,910,400	1,461,704,500
7. Total Liabilities		$2,452,503,266

TPF&C prepared the actuarial balance sheet in a condensed format using terminology we hope will aid in its review and discussion.

"Cost-of-Living Pensions" are the postretirement increases provided by Section 510.1 of Article XXXIV of the City Charter and related ordinances.

"Basic Pensions" are all benefits other than "Cost-of-Living Pensions" and Family Death Benefits provided by Article XXXIV of the City Charter and related ordinances.

"Amortization of Certain Past Service Liabilities" refers to those liabilities of the System amortized over fixed periods of time pursuant to the Charter, ordinance, or Board authorization.

SECTION V

RECOMMENDED CITY CONTRIBUTIONS

Based on the actuarial valuation of the Retirement System as of June 30, 1983, we respectfully submit the following recommendations in accordance with the provisions of Article XXXIV of the City Charter and related ordinances.

Based on the Projected Unit Credit Cost funding method and the assumption that all members will contribute on the basis of the full rates recommended in Section II, we recommend that City contributions for fiscal year 1984-1985 be as follows:

	Recommended City Contributions For 1984-1985		
	Percentage of Salary	plus	Fixed-Dollar Amount
a. For Basic Pensions:			
i. Normal Cost	3.60%		---
ii. Prior Service-Minimum Pensions (Charter-Period ending June 30, 1997)	---		$ 927,955
iii. Increase due to 1965 Amendments (Charter-Period ending June 30, 1990)	---		606,627
iv. Unfunded Supplemental Present Value	5.01%		---
v. Total Basic Pensions	8.61%		$ 1,534,582

	Recommended City Contributions For 1984-1985		
	Percentage of Salary	plus	Fixed-Dollar Amount
b. For Cost-of-Living Pensions:			
i. Normal Cost	1.86%		---
ii. Increase due to 1967 Amendment (Charter-Period ending June 30, 1997)	---		$ 1,796,547
iii. Unfunded Supplemental Present Value (Period ending June 30, 2004)	4.00%		---
iv. Total Cost-of-Living Pensions	5.86%		$ 1,796,547
c. Total Basic and Cost-of-Living Pensions	14.47%		$ 3,331,129

d. For Family Death Benefits:

$5.14 per month for each participating member in the Family Death Benefit Insurance Plan.

An ordinance effective in October 1975 permits the City to "subsidize" a portion of employee contributions. Since the portion subsidized by the City will not be refunded to the member upon employment termination before retirement, the City does not have to pay the total amount of employee contributions it subsidizes. Based on the actuarial valuation as of June 30, 1983, we recommend the City contribute to the System 67.28% of subsidized employee contributions, i.e., for each $10,000 the City subsidizes, it should contribute $6,728. We note the amount the City subsidizes is the difference between members' actual contributions and the amount of contributions if they contribute at the levels shown in Section VII.

The following table compares present City percentage of salary contribution rates with those proposed.

	City Percentage of Salary Contributions		
	Proposed	Present	Ratio
Normal Cost	5.46%	4.68%	1.17
Amortization of UAAL	9.01%	7.78%	1.16
Total	14.47%	12.46%	1.16

The main reasons for the increase in the City's contribution percentage in approximate order of impact are: 1) the 7% increase in retiree benefits; 2) the change to the retirement and postdisability retirement mortality assumptions; and 3) the low turnover during the last year. Investment earnings were better than expected, but this was more than offset by a decline in population (which means the amortization payments have to be spread over a smaller overall salary base than expected) and a salary loss because individuals' pay increases were slightly larger than expected (despite the fact total payroll didn't go up as much as expected due to the population decline).

The change in plan provisions allowing "55 and 30" unreduced retirements increased costs but this was more than offset by the change in funding method from the Entry Age Normal Method to the Projected Unit Credit (PUC) method. The PUC method was adopted as a more generally accepted actuarial method than the alternative suggested, i.e., an asset would be established equal to the present value of the increase in employee contribution rates to 6%.

We believe if the recommendation contained herein are adopted, the System will be maintained on a sound basis in accordance with the actuarial assumptions and funding methods underlying the calculations.

SECTION VI

MEASURES OF FUNDING PROGRESS

Several measures can be used to evaluate the funding progress of a retirement system. In this Section we discuss five of these measures to provide several views of the funding progress of the Los Angeles City Retirement System.

Unfunded Actuarial Accrued Liability (UAAL)

A common method of measuring funding progress is to compare the change in the UAAL from one year to another. Last year the UAAL was $611,741,373. This year the UAAL increased to $695,364,489. Because of inherent characteristics of the amortization method, the UAAL is expected to increase for several more years before it begins to decrease.

We believe the UAAL is a misleading measure of funding progress because it depends heavily on the particular funding method used and, in particular, on the definition of Normal Cost. Thus, we recommend considering other measures of funding progress which are independent of the funding method. A comparison of UAALs this year is particularly inappropriate because of changes to both the system's funding method and benefit levels.

Traditional Funding Ratio

The schedule below compares the assets on hand with the present value of benefits earned to date. This method has been specified by the National Council for Governmental Accounting as the appropriate method for disclosure. We have shown figures for the current and previous valuations to acquaint you with the funding progress.

A funding ratio of over 100% would mean that monies had already been paid for benefits yet to be earned, and this may not be appropriate in a public retirement system.

The present value of benefits earned to date is calculated on the basis of an ongoing system, i.e., reflecting all actuarial assumptions including future salary increases. Death and disability benefits are prorated by years of service to normal retirement age. This is sometimes referred to as the "Plan Continuation Liability."

	June 30, 1983	June 30, 1982
1. Present Value of Benefits Earned to Valuation Date		
(a) Basic Benefits	$1,282,028,418	$1,094,664,192
(b) Cost-of-Living Benefits	544,300,448	432,999,675
(c) Total	1,826,328,866	1,527,663,867
2. Applicable Assets on Hand		
(a) Basic Benefits	898,536,433	806,065,516
(b) Cost-of-Living Benefits	232,427,944	203,268,078
(c) Total	$1,130,964,377	$1,009,333,594
3. Funding Ratio		
(a) Basic Benefits	70.1%	73.6%
(b) Cost-of-Living Benefits	42.7%	46.9%
(c) Total	61.9%	66.1%

The decrease in funding ratios is primarily a result of: 1) the 7% ad hoc retiree increase; 2) the low turnover experienced over the last year; 3) more conservative assumptions that have been adopted for postdisability retirement longevity and early retirement frequency; and 4) to a lesser extent the increased benefits associated with "55 and 30" retirement.

Vested Liability

We estimate that the liability for vested benefits as of June 30, 1983 amounts to $1,787,000,000. At the request of the Retirement Board's Auditor, this calculation was done on the basis of projected salaries as described under "funding ratio." Applicable assets on hand amount to $1,130,964,377. Thus, as of June 30, 1983, there was an excess of vested liability over applicable assets on hand amounting to $656,000,000. Note that applicable assets on hand amount to 63% of the vested liability. The corresponding figure for June 30, 1982 was 68%. The reasons for the decline in the percentage are identical to those for the decline in the traditional funding ratio.

Financial Accounting Standards Board Accrued Liability

Another measure of funding progress has recently been introduced by the Financial Accounting Standards Board (FASB) in its Opinion No. 35. The FASB has decided that if the Plan's financial statement is to be compiled in accordance with generally accepted accounting principles (GAAP), the statement must contain the "present value of accumulated benefits" determined in accordance with FASB No. 35.

FASB No. 35 requires a straightforward determination of the present value of accrued benefits similar to our traditional approach. However, they require one change to that definition; namely, no projection of future salary increases is made. Thus, while the traditional accrued liability is calculated on the basis of an ongoing system, the FASB accrued liability is more appropriate if

no future salary increases are made. Using the FASB approach, we have determined the following:

	June 30, 1983	June 30, 1982
(1) Present Value of Accrued Benefits	$1,590,856,266	$1,325,277,167
(2) Assets	1,130,964,377	1,009,333,594
(3) Percent Funded (2)/(1)	71.1%	76.2%

The reasons for the decline are again as stated for the decline in the traditional funding ratio. The above results are based on the actuarial assumptions as described in Section II including an interest rate of 8%. The 8% may be judged low by FASB standards, which require realistic returns based on a market valuation of assets.

Based on the assumptions and methods used for the previous report, available assets would represent 72.0% of the present value of accrued benefits.

Quick Liability

A simple measure of a plan's condition is to compare the liability for inactive members plus deposits of active members versus accumulated assets. We have termed this liability the "Quick Liability." The comparison to assets is as follows:

	June 30, 1983	June 30, 1982
(1) Liability for Retired and Vested Terminations	$ 990,798,766	$ 761,152,367
(2) Accumulated Active Member Deposits with Interest	242,290,200	232,997,000
(3) Total (1)+(2)	1,233,088,966	994,149,367
(4) Assets	1,130,964,377	1,009,333,594

In a well-funded system, the assets would at least equal the liability for members no longer providing services plus the active members' "own" money.

To summarize, there are two basic considerations in contemplating the funding status of a system. The first is the assets accumulated to pay benefits and how they compare to the current liability for benefits already earned. The various funding measures presented above are intended to evaluate this aspect of funding. However, the second consideration is normally more important: what is the financial commitment of the plan sponsor to continue to fund both benefits earned to date and benefits to be earned in the future, and does the plan sponsor have the financial resources to meet future budgetary obligations, as recommended in Section V?

SECTION VII

STATISTICAL INFORMATION

- Summary of Actuarial Assumptions
- Mortality after Service Retirement - Schedule 1
- Mortality after Disability Retirement - Schedule 2
- Probability of Occurrence (of Decrements from Active Service)
  - Male
  - Female
- Member Contribution Rates
- Distribution of Active Members by Age and Service
- Distribution of Pensioners by Age and Year of Retirement
- Summary of Major Plan Provisions

SUMMARY OF ACTUARIAL ASSUMPTIONS

The Projected Unit Credit Cost Method was used in conjunction with the following actuarial assumptions:

1. Interest: 8.0% per annum.

2. Salary Scale: 5.75% per annum.

3. Spouses and Dependents: 80% of male employees and 50% of female employees assumed married at retirement, with wives assumed four years younger than husbands.

4. Rehire of Former Employees: Assumed not to be rehired.

5. Asset Valuation: Asset values taken directly from statements furnished by the City.

6. Rates of Termination of Employment: As shown on the following pages entitled "Probability of Occurrence."

7. Probabilities of Mortality after Retirement: As shown in table which follows (Schedule 1).

8. Probabilities of Mortality after Disability: As shown in table which follows (Schedule 2).

SCHEDULE 1

EXPECTATION OF LIFE

1971 Group Annuity*
(x-0) (x-6)

Age	Male	Female
15	60.13 years	65.97 years
20	55.26	61.10
25	50.40	56.23
30	45.57	51.37
35	40.76	46.53
40	36.01	41.72
45	31.36	36.96
46	30.45	36.01
47	29.55	35.07
48	28.66	34.13
49	27.78	33.20
50	26.91	32.28
51	26.05	31.36
52	25.20	30.45
53	24.36	29.55
54	23.53	28.66
55	22.71	27.78
56	21.90	26.91
57	21.10	26.05
58	20.31	25.20
59	19.53	24.36
60	18.76	23.53
61	18.00	22.71
62	17.26	21.90
63	16.53	21.10
64	15.81	20.31
65	15.00	19.53
66	14.43	18.76
67	13.77	18.00
68	13.13	17.26
69	12.50	16.53
70	11.91	15.81

* This table was used with a two-year age setback.

SCHEDULE 1
(continued)

EXPECTATION OF LIFE

1971 Group Annuity*
(x-0) (x-6)

Age	Male	Female
71	11.33 years	15.11 years
72	10.79	14.43
73	10.26	13.77
74	9.74	13.13
75	9.24	12.50
76	8.76	11.91
77	8.28	11.33
78	7.83	10.79
79	7.41	10.26
80	7.00	9.74
81	6.63	9.24
82	6.27	8.76
83	5.94	8.28
84	5.63	7.83
85	5.34	7.41
86	5.06	7.00
87	4.80	6.63
88	4.55	6.27
89	4.31	5.94
90	4.08	5.63
91	3.87	5.34
92	3.66	5.06
93	3.46	4.80
94	3.26	4.55
95	3.07	4.31
96	2.89	4.08
97	2.71	3.87
98	2.54	3.66
99	2.37	3.46
100	2.20	3.26
101	2.04	3.07
102	1.88	2.89
103	1.72	2.71
104	1.55	2.54
105	1.38	2.37

* This table was used with a two-year age setback.

SCHEDULE 1
(continued)

EXPECTATION OF LIFE

1971 Group Annuity*
(x-0) (x-6)

Age	Male	Female
106	1.21 years	2.20 years
107	1.04	2.04
108	.88	1.88
109	.71	1.72
110	.50	1.55

* This table was used with a two-year age setback.

SCHEDULE 2

1981 DISABILITY MORTALITY TABLE

Age	General	Safety	Age	General	Safety
20	.0066	.0019	65	.0379	.0368
21	.0074	.0020	66	.0390	.0385
22	.0080	.0021	67	.0400	.0400
23	.0085	.0022	68	.0411	.0411
24	.0091	.0023	69	.0422	.0422
25	.0096	.0024	70	.0437	.0437
26	.0100	.0026	71	.0454	.0454
27	.0106	.0027	72	.0472	.0742
28	.0106	.0028	73	.0496	.0496
29	.0112	.0030	74	.0526	.0526
30	.0122	.0031	75	.0553	.0553
31	.0127	.0033	76	.0601	.0601
32	.0132	.0034	77	.0659	.0659
33	.0137	.0036	78	.0726	.0726
34	.0143	.0338	79	.0797	.0797
35	.0148	.0040	80	.0874	.0874
36	.0154	.0042	81	.0955	.0955
37	.0159	.0044	82	.1037	.1037
38	.0165	.0046	83	.1123	.1123
39	.1070	.0049	84	.1211	.1211
40	.0176	.0051	85	.1301	.1301
41	.0182	.0054	86	.1393	.1393
42	.0188	.0057	87	.1487	.1487
43	.0194	.0060	88	.1585	.1585
44	.0201	.0064	89	.1687	.1687
45	.0208	.0067	90	.1795	.1795
46	.0215	.0071	91	.1905	.1905
47	.0222	.0076	92	.2017	.2017
48	.0229	.0081	93	.2123	.2123
49	.0236	.0086	94	.2265	.2265
50	.0244	.0092	95	.2412	.2412
51	.0252	.0099	96	.2562	.2562
52	.0259	.0107	97	.2725	.2725
53	.0267	.0117	98	.2902	.2902
54	.0275	.0130	99	.3091	.3091
55	.0284	.0150	100	.3298	.3298
56	.0293	.0177	101	.3525	.3525
57	.0303	.0210	102	.3772	.3772
58	.0312	.0236	103	.4062	.4062
59	.0321	.0260	104	.4415	.4415
60	.0330	.0280	105	.4852	.4852
61	.0339	.0298	106	.5393	.5393
62	.0348	.0315	107	.6061	.6061
63	.0358	.0332	108	.6874	.6874
64	.0369	.0350	109	.7856	.7856
			110	1.0000	1.0000

LOS ANGELES CITY EMPLOYEES
MALE GENERAL MEMBERS
PROBABILITY OF OCCURRENCE(INCLUDING ELIGIBILITY)

01/20/84
17:09:53

AGE NEAREST	ORDINARY WITHDRAW	VESTED WITHDRAW	ORDINARY DEATH	ORDINARY DISABLTY	SERVICE RETIRE	SERVICE DISABLTY	SERVICE DEATH	DWE SVC RET	DWE DIS RET
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.3210	0.0	0.0003	0.0	0.0	0.0	0.0	0.0	0.0
21	0.2960	0.0	0.0003	0.0	0.0	0.0	0.0	0.0	0.0
22	0.2710	0.0	0.0004	0.0	0.0	0.0	0.0	0.0	0.0
23	0.2500	0.0	0.0004	0.0	0.0	0.0	0.0	0.0	0.0
24	0.2310	0.0	0.0004	0.0	0.0	0.0	0.0	0.0	0.0
25	0.2140	0.0	0.0005	0.0002	0.0	0.0	0.0	0.0	0.0
26	0.1950	0.0	0.0005	0.0002	0.0	0.0	0.0	0.0	0.0
27	0.1790	0.0	0.0006	0.0003	0.0	0.0	0.0	0.0	0.0
28	0.1670	0.0	0.0006	0.0004	0.0	0.0	0.0	0.0	0.0
29	0.1520	0.0	0.0007	0.0005	0.0	0.0	0.0	0.0	0.0
30	0.1410	0.0	0.0007	0.0006	0.0	0.0	0.0	0.0	0.0
31	0.1280	0.0	0.0008	0.0008	0.0	0.0	0.0	0.0	0.0
32	0.1150	0.0	0.0009	0.0009	0.0	0.0	0.0	0.0	0.0
33	0.1080	0.0	0.0009	0.0010	0.0	0.0	0.0	0.0	0.0
34	0.0990	0.0	0.0010	0.0011	0.0	0.0	0.0	0.0	0.0
35	0.0910	0.0	0.0011	0.0013	0.0	0.0	0.0	0.0	0.0
36	0.0830	0.0	0.0012	0.0014	0.0	0.0	0.0	0.0	0.0
37	0.0760	0.0	0.0013	0.0015	0.0	0.0	0.0	0.0	0.0
38	0.0690	0.0	0.0015	0.0016	0.0	0.0	0.0	0.0	0.0
39	0.0640	0.0	0.0016	0.0017	0.0	0.0	0.0	0.0	0.0
40	0.0600	0.0	0.0018	0.0018	0.0	0.0	0.0	0.0	0.0
41	0.0560	0.0	0.0020	0.0018	0.0	0.0	0.0	0.0	0.0
42	0.0510	0.0	0.0021	0.0019	0.0	0.0	0.0	0.0	0.0
43	0.0460	0.0	0.0022	0.0019	0.0	0.0	0.0	0.0	0.0
44	0.0420	0.0	0.0024	0.0020	0.0	0.0	0.0	0.0	0.0
45	0.0400	0.0	0.0026	0.0020	0.0	0.0	0.0	0.0	0.0
46	0.0380	0.0	0.0029	0.0021	0.0	0.0	0.0	0.0	0.0
47	0.0360	0.0	0.0031	0.0021	0.0	0.0	0.0	0.0	0.0
48	0.0340	0.0	0.0033	0.0022	0.0	0.0	0.0	0.0	0.0
49	0.0330	0.0	0.0036	0.0022	0.0	0.0	0.0	0.0	0.0
50	0.0310	0.0	0.0041	0.0023	0.0020	0.0	0.0	0.0	0.0
51	0.0290	0.0	0.0044	0.0023	0.0030	0.0	0.0	0.0	0.0
52	0.0280	0.0	0.0048	0.0023	0.0040	0.0	0.0	0.0	0.0
53	0.0260	0.0	0.0054	0.0023	0.0055	0.0	0.0	0.0	0.0
54	0.0250	0.0	0.0059	0.0023	0.0235	0.0	0.0	0.0	0.0
55	0.0230	0.0	0.0040	0.0024	0.0945	0.0	0.0	0.0026	0.0
56	0.0210	0.0	0.0044	0.0024	0.0675	0.0	0.0	0.0030	0.0
57	0.0200	0.0	0.0049	0.0024	0.0785	0.0	0.0	0.0032	0.0
58	0.0180	0.0	0.0053	0.0024	0.0900	0.0	0.0	0.0036	0.0
59	0.0160	0.0	0.0059	0.0024	0.1000	0.0	0.0	0.0040	0.0
60	0.0140	0.0	0.0066	0.0024	0.1935	0.0	0.0	0.0044	0.0
61	0.0120	0.0	0.0074	0.0024	0.1400	0.0	0.0	0.0049	0.0
62	0.0100	0.0	0.0082	0.0025	0.1500	0.0	0.0	0.0054	0.0
63	0.0070	0.0	0.0090	0.0025	0.1680	0.0	0.0	0.0060	0.0
64	0.0030	0.0	0.0100	0.0025	0.2125	0.0	0.0	0.0066	0.0
65	0.0	0.0	0.0110	0.0	0.3500	0.0	0.0	0.0074	0.0
66	0.0	0.0	0.0122	0.0	0.2240	0.0	0.0	0.0081	0.0
67	0.0	0.0	0.0135	0.0	0.2240	0.0	0.0	0.0090	0.0
68	0.0	0.0	0.0146	0.0	0.2240	0.0	0.0	0.0097	0.0
69	0.0	0.0	0.0160	0.0	0.2500	0.0	0.0	0.0107	0.0
70	0.0	0.0	0.0	0.0	1.0000	0.0	0.0	0.0	0.0

LOS ANGELES CITY EMPLOYEES
FEMALE GENERAL MEMBERS
PROBABILITY OF OCCURRENCE(INCLUDING ELIGIBILITY)

01/20/84
17:09:53

AGE NEAREST	ORDINARY WITHDRAW	VESTED WITHDRAW	ORDINARY DEATH	ORDINARY DISABLTY	SERVICE RETIRE	SERVICE DISABLTY	SERVICE DEATH	DWE SVC RET	DWE DIS RET
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.2110	0.0	0.0002	0.0	0.0	0.0	0.0	0.0	0.0
21	0.2040	0.0	0.0002	0.0	0.0	0.0	0.0	0.0	0.0
22	0.1970	0.0	0.0002	0.0	0.0	0.0	0.0	0.0	0.0
23	0.1880	0.0	0.0002	0.0	0.0	0.0	0.0	0.0	0.0
24	0.1800	0.0	0.0003	0.0	0.0	0.0	0.0	0.0	0.0
25	0.1730	0.0	0.0004	0.0	0.0	0.0	0.0	0.0	0.0
26	0.1670	0.0	0.0004	0.0	0.0	0.0	0.0	0.0	0.0
27	0.1610	0.0	0.0005	0.0	0.0	0.0	0.0	0.0	0.0
28	0.1530	0.0	0.0005	0.0	0.0	0.0	0.0	0.0	0.0
29	0.1480	0.0	0.0006	0.0	0.0	0.0	0.0	0.0	0.0
30	0.1410	0.0	0.0006	0.0001	0.0	0.0	0.0	0.0	0.0
31	0.1360	0.0	0.0007	0.0001	0.0	0.0	0.0	0.0	0.0
32	0.1300	0.0	0.0007	0.0001	0.0	0.0	0.0	0.0	0.0
33	0.1230	0.0	0.0008	0.0001	0.0	0.0	0.0	0.0	0.0
34	0.1160	0.0	0.0009	0.0001	0.0	0.0	0.0	0.0	0.0
35	0.1090	0.0	0.0009	0.0002	0.0	0.0	0.0	0.0	0.0
36	0.1000	0.0	0.0010	0.0002	0.0	0.0	0.0	0.0	0.0
37	0.0900	0.0	0.0010	0.0002	0.0	0.0	0.0	0.0	0.0
38	0.0830	0.0	0.0011	0.0003	0.0	0.0	0.0	0.0	0.0
39	0.0780	0.0	0.0012	0.0003	0.0	0.0	0.0	0.0	0.0
40	0.0710	0.0	0.0013	0.0004	0.0	0.0	0.0	0.0	0.0
41	0.0680	0.0	0.0014	0.0005	0.0	0.0	0.0	0.0	0.0
42	0.0650	0.0	0.0015	0.0006	0.0	0.0	0.0	0.0	0.0
43	0.0610	0.0	0.0015	0.0008	0.0	0.0	0.0	0.0	0.0
44	0.0580	0.0	0.0016	0.0010	0.0	0.0	0.0	0.0	0.0
45	0.0550	0.0	0.0017	0.0012	0.0	0.0	0.0	0.0	0.0
46	0.0520	0.0	0.0018	0.0014	0.0	0.0	0.0	0.0	0.0
47	0.0490	0.0	0.0019	0.0014	0.0	0.0	0.0	0.0	0.0
48	0.0460	0.0	0.0020	0.0016	0.0	0.0	0.0	0.0	0.0
49	0.0440	0.0	0.0021	0.0018	0.0	0.0	0.0	0.0	0.0
50	0.0420	0.0	0.0022	0.0020	0.0010	0.0	0.0	0.0	0.0
51	0.0400	0.0	0.0024	0.0024	0.0025	0.0	0.0	0.0	0.0
52	0.0380	0.0	0.0026	0.0028	0.0045	0.0	0.0	0.0	0.0
53	0.0350	0.0	0.0028	0.0032	0.0075	0.0	0.0	0.0	0.0
54	0.0330	0.0	0.0030	0.0036	0.0150	0.0	0.0	0.0	0.0
55	0.0310	0.0	0.0033	0.0040	0.0710	0.0	0.0	0.0	0.0
56	0.0290	0.0	0.0036	0.0040	0.0320	0.0	0.0	0.0	0.0
57	0.0270	0.0	0.0039	0.0040	0.0350	0.0	0.0	0.0	0.0
58	0.0250	0.0	0.0043	0.0040	0.0400	0.0	0.0	0.0	0.0
59	0.0230	0.0	0.0047	0.0040	0.0650	0.0	0.0	0.0	0.0
60	0.0220	0.0	0.0052	0.0	0.1850	0.0	0.0	0.0	0.0
61	0.0210	0.0	0.0057	0.0	0.1100	0.0	0.0	0.0	0.0
62	0.0200	0.0	0.0065	0.0	0.1250	0.0	0.0	0.0	0.0
63	0.0150	0.0	0.0073	0.0	0.1350	0.0	0.0	0.0	0.0
64	0.0070	0.0	0.0081	0.0	0.1500	0.0	0.0	0.0	0.0
65	0.0	0.0	0.0091	0.0	0.2500	0.0	0.0	0.0	0.0
66	0.0	0.0	0.0105	0.0	0.1700	0.0	0.0	0.0	0.0
67	0.0	0.0	0.0121	0.0	0.1850	0.0	0.0	0.0	0.0
68	0.0	0.0	0.0139	0.0	0.2150	0.0	0.0	0.0	0.0
69	0.0	0.0	0.0159	0.0	0.2800	0.0	0.0	0.0	0.0
70	0.0	0.0	0.0	0.0	1.0000	0.0	0.0	0.0	0.0

APPLICABLE TO MEMBERS COVERED UNDER "BETA" FORMULA

115% NORMAL CONTRIBUTION RATES

Age	Survivor Contribution Rate	Age	Survivor Contribution Rate
		40	.91%
16	.22%	41	.92
17	.28	42	.93
18	.33	43	.94
19	.39	44	.95
20	.44	45	.97
21	.48	46	.98
22	.53	47	.99
23	.56	48	1.00
24	.60	49	1.01
25	.63	50	1.03
26	.66	51	1.05
27	.68	52	1.06
28	.70	53	1.07
29	.72	54	1.08
30	.75	55	1.09
31	.77	56	1.10
32	.79	57	1.12
33	.81	58	1.13
34	.82	59 and over	1.14
35	.83		
36	.85		
37	.86		
38	.87		
39	.90		

71 GAM
5-3/4%
3-1/2% S/S

Los Angeles City Employees'
Retirement System

APPLICABLE TO MEMBERS COVERED UNDER "BETA" FORMULA

115% NORMAL CONTRIBUTION RATES

Applicable Only to Employees Whose Normal and Survivor Contribution Rates Are Assigned by the Same Age

Age	Total Contribution Rate	Age	Total Contribution Rate
		40	11.10%
16	8.22%	41	11.21
17	8.32	42	11.34
18	8.41	43	11.46
19	8.53	44	11.59
20	8.64	45	11.73
21	8.75	46	11.87
22	8.87	47	12.00
23	8.98	48	12.12
24	9.10	49	12.25
25	9.21	50	12.37
26	9.32	51	12.49
27	9.43	52	12.61
28	9.56	53	12.72
29	9.68	54	12.83
30	9.81	55	12.94
31	9.94	56	13.04
32	10.07	57	13.15
33	10.21	58	13.24
34	10.32	59	13.33
35	10.44		
36	10.58		
37	10.70		
38	10.83		
39	10.97		

71 GAM
5-3/4%
3-1/2% S/S

Los Angeles City Employees'
Retirement System

APPLICABLE TO MEMBERS COVERED UNDER "BETA" FORMULA

115% NORMAL CONTRIBUTION RATES

Applicable Only to Employees Whose Normal and Survivor Contribution Rates Are Assigned by the Same Age

Age	Total Contribution Rate	Age	Total Contribution Rate
		40	11.10%
16	8.22%	41	11.21
17	8.32	42	11.34
18	8.41	43	11.46
19	8.53	44	11.59
20	8.64	45	11.73
21	8.75	46	11.87
22	8.87	47	12.00
23	8.98	48	12.12
24	9.10	49	12.25
25	9.21	50	12.37
26	9.32	51	12.49
27	9.43	52	12.61
28	9.56	53	12.72
29	9.68	54	12.83
30	9.81	55	12.94
31	9.94	56	13.04
32	10.07	57	13.15
33	10.21	58	13.24
34	10.32	59	13.33
35	10.44		
36	10.58		
37	10.70		
38	10.83		
39	10.97		

71 GAM
5-3/4%
3-1/2% S/S

AGE/SERVICE DISTRIBUTION TOTAL MEMBERS

AGE		** SERVICE ** 0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35-	TOTAL
15-19	*NO. *	15	3	1	0	0	0	0	0	0	0	0	0	19
	TOT.AMT	201604	62838	15183	0	0	0	0	0	0	0	0	0	279625
	AVE.AMT*	13440	20946	15183	0	0	0	0	0	0	0	0	0	14717
20-24	*NO. *	256	165	290	112	16	15	0	0	0	0	0	0	854
	TOT.AMT	4006330	2647182	4980759	1940204	289474	271955	0	0	0	0	0	0	14135904
	AVE.AMT*	15650	16044	17175	17323	18092	18130	0	0	0	0	0	0	16553
25-29	*NO. *	307	231	461	269	91	460	13	0	0	0	0	0	1832
	TOT.AMT	5472277	4464102	9097314	5274795	1850510	9366503	262445	0	0	0	0	0	35787946
	AVE.AMT*	17825	19325	19734	19609	20335	20362	20188	0	0	0	0	0	19535
30-34	*NO. *	235	180	337	271	127	934	540	13	0	0	0	0	2637
	TOT.AMT	4307260	3673528	7038383	6117670	3122092	22056325	12103952	290700	0	0	0	0	58709910
	AVE.AMT*	18329	20408	20885	22574	24583	23615	22415	22362	0	0	0	0	22264
35-39	*NO. *	136	102	199	207	87	762	990	303	12	0	0	0	2798
	TOT.AMT	2743533	2051524	4487377	5041233	2130848	20180548	26772857	8165739	326057	0	0	0	71899716
	AVE.AMT*	20173	20113	22550	24354	24493	26484	27043	26950	27171	0	0	0	25697
40-44	*NO. *	88	52	124	97	48	416	639	569	171	10	0	0	2214
	TOT.AMT	1818315	1082431	2653188	2197741	1161839	10656649	17452307	16258206	4804806	288088	0	0	58373570
	AVE.AMT*	20663	20816	21397	22657	24205	25617	27312	28573	28098	28809	0	0	26366
45-49	*NO. *	60	36	83	79	30	299	433	491	344	214	2	0	2071
	TOT.AMT	1406179	799244	1896775	1823517	689106	7522294	11085766	13333149	9962722	5968414	77750	0	54564916
	AVE.AMT*	23436	22201	22853	23082	22970	25158	25602	27155	28961	27890	38875	0	26347
50-54	*NO. *	40	26	54	48	19	250	353	350	435	429	73	6	2083
	TOT.AMT	799367	542713	1234784	1130476	490031	6013016	8748207	9267717	12646316	12493111	2110394	191038	55667170
	AVE.AMT*	19984	20874	22866	23552	25791	24052	24782	26479	29072	29121	28910	31840	26725
55-59	*NO. *	33	20	36	42	27	232	309	294	305	349	176	41	1864
	TOT.AMT	711186	473007	764177	1050853	664585	5690977	7934447	7718072	8180115	10068992	5707453	1322763	50286627
	AVE.AMT*	21551	23650	21227	25020	24614	24530	25678	26252	26820	28851	32429	32263	26978
60-64	*NO. *	15	6	15	33	16	165	222	218	161	170	103	61	1185
	TOT.AMT	354732	114163	322574	843032	404819	4151160	5601737	5562076	4184289	4540646	3339462	2244798	31663488
	AVE.AMT*	23649	19027	21505	25546	25301	25159	25233	25514	25989	26710	32422	36800	26720
65-	*NO. *	6	3	10	6	3	78	95	82	62	44	28	23	440
	TOT.AMT	85067	81751	204489	198108	61649	2054759	2372775	2109184	1670070	997272	797029	653847	11286000
	AVE.AMT*	14178	27250	20449	33018	20550	26343	24977	25722	26937	22665	28465	28428	25650
TOTAL	*NO. *	1191	824	1610	1164	464	3611	3594	2320	1490	1216	382	131	17997
	TOT.AMT	21905850	15992483	32695003	25617629	10864953	87964186	92334493	62704843	41774375	34356523	12032088	4412446442654872	
	AVE.AMT*	18393	19408	20307	22008	23416	24360	25691	27028	28036	28254	31498	33683	24596

AVERAGE AGE * 42.5 * AVERAGE SERVICE * 11.0 *

DISTRIBUTION OF PENSIONERS BY YEAR OF RETIREMENT AND BY ATTAINED AGE AS OF 6/83

TOTAL OF ALL MEMBERS

ATTAINED AGE	PRE '63	'63	'64	'65	'66	'67	'68	'69	'70	'71	'72	'73	'74	'75	'76	'77	'78	'79	'80	'81	'82	TOTAL	AVG AMT
	** YEAR OF RETIREMENT **																						
0- 29	5	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	1	11	3617
30- 34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	6	4	6	3	23	6777
35- 39	0	0	0	0	0	0	1	0	0	0	1	1	1	4	5	2	8	6	16	9	8	62	6450
40- 44	0	0	0	0	0	1	0	0	0	2	4	1	6	9	4	10	13	15	8	5	6	84	5882
45- 49	0	0	0	0	0	1	0	2	3	5	2	7	2	7	15	7	11	22	10	13	6	113	6223
50- 54	0	0	0	1	1	3	0	0	2	7	7	4	4	12	15	16	16	10	20	23	11	152	6505
55- 59	3	1	0	0	2	4	4	3	4	14	10	16	21	20	24	31	76	93	112	124	293	855	12210
60- 64	8	5	4	1	9	8	7	9	11	17	27	16	49	74	101	159	227	191	188	209	291	1611	12009
65- 69	72	18	3	23	17	26	21	45	39	56	63	105	105	166	207	191	215	174	148	141	117	1952	10124
70- 74	44	25	13	31	29	63	62	52	60	73	86	143	103	157	153	117	99	55	36	45	39	1485	8405
75- 79	124	42	35	58	69	68	68	63	50	80	83	105	61	66	36	16	13	8	6	4	3	1058	7339
80- 84	161	55	25	64	36	38	56	25	28	32	31	25	0	1	1	0	1	0	1	0	0	580	6992
85- 89	212	29	30	42	21	26	15	2	0	1	1	1	0	0	0	0	0	0	0	0	0	380	5494
90- 94	102	11	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	117	4810
95- 99	13	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	14	5203
100-104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
105-999	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT NUM	744	186	111	220	185	239	235	202	197	287	316	424	352	516	561	549	683	583	550	579	778	8497	
AVG AMT	4681	5245	4648	6504	6021	5937	6415	6103	6254	6660	6895	8921	8575	9972	10961	10460	10869	11082	10738	11870	15241		

* AVG AMT * 9339

* TOT.PEN. 79355408 *

SUMMARY OF MAJOR PLAN PROVISIONS

1. Membership Requirements

   First of month following employment.

2. Final Monthly Compensation

   Highest 12-month average salary.

3. Service Retirement

   A. Eligibility

      Ten years of service and age 55, or 30 years of service any age, or age 70.

   B. Allowance

      "Beta" Formula - 2.16% of final monthly compensation for each year of service (reduced if retirement before age 60); however, member may retire on full accrued pension if he or she has completed at least 30 years of service and has attained age 55.

      Prior Formula - 2% of final monthly compensation for each year of service (reduced if retirement before age 58-3/4).

   C. Form of Payment

      Monthly allowance payable for life with 50% continuance to eligible spouse. Larger continuance available as option with reduced allowance.

4. Disability Retirement

A. Eligibility

Five or more years of continuous service and physically or mentally incapacitated so unable to perform duties of position.

B. Allowance

1/70 of final monthly compensation for each year of continuous service. If service is less than 23-1/3 years, then service is projected to retirement, with a maximum total service (actual plus projected) of 23-1/3 years.

C. Form of Payment

Monthly allowance payable for life, with 50% continuance to eligible surviving spouse if employee had that coverage at time of retirement.

5. Deferred Service Retirement

A. Eligibility

Terminate City service with five or more years of retirement credit, apply in writing within three years after termination, and agree to leave accumulated contributions on deposit.

Application required for retirement at any time after attaining age 55, provided at least 10 years have elapsed when employee first became a member, or at age 70 without any elapsed time requirement.

B. Allowance

Same as service retirement.

C. Form of Payment

Same as service retirement.

6. Death Prior to Retirement

A. Not Eligible to Retire

The sum of:

i. accumulated contributions,

ii. a monthly pension to the surviving spouse, minor children, or dependent parents of the deceased member, payable for a period equal to two months times the number of completed years of service credit to a maximum period of 12 months at the rate of 1/2 of the average monthly salary for the year before death, and

iii. if deceased member was a qualified member of the Family Death Benefit Insurance Plan, such benefits as are payable under that Plan.

B. Eligibility for Disability Retirement or Duty-Related Death

The sum of the following:

i. 60% of the allowance the member would have received if he or she had been granted a disability retirement allowance the day before he or she died, payable for the lifetime of the member's surviving spouse, and

ii. if the deceased member was a qualified member of the Family Death Benefit Insurance Plan, such benefits as are payable under the Plan.

C. Eligible for Retirement

Surviving spouse receives a lifetime survivorship allowance based on an actuarially computed percentage of the retirement allowance the member would have been entitled to if he or she had been granted an Option 1 service retirement the day before he or she died. Benefits under the Family Death Benefit Insurance Plan, if any, are not payable. The surviving spouse may elect A or B in lieu of C.

7. Death After Retirement

A. 50% continuance to surviving eligible spouse, if covered under the plan.

B. Upon the death of both the member and surviving spouse, designated beneficiary receives any unused contributions which may remain (provided the normal cash refund annuity was selected) and any accrued but unpaid retirement allowance due at time of death.

C. $500 death benefit paid to designated beneficiary of deceased member for assumption of obligation to pay burial expense.

8. Postretirement Cost-of-Living Benefits

As of each July 1, benefits being paid increased (proportionately if paid less than 12 months) by increase in Consumer Price Index (to a maximum of 3%). Increases in CPI above 3% are "banked" to apply in years when CPI increase is less than 3%.

9. Employee Contributions

For purposes of this valuation each member who entered the plan before February 1, 1983 is assumed to contribute to the System at the rates specified previously in the Section. These rates were recommended in our 1977 valuation and adopted through union negotiations; they are being phased in and are assumed to be totally effective after June 30, 1981. To the extent that members contribute less than the full rates, the City should make compensating contributions as discussed in Section V. Contribution rates for members not covered by the BETA formula are 8% less than rates for members covered by the BETA formula. Members who entered the plan on or after February 1, 1983 are assumed to contribute at the rate of 6%.

10. Family Death Benefit Insurance Plan

A. Eligibility

Employee may elect coverage after 18 months of City retirement service credit.

B. Benefits

Benefits similar to those provided by Survivors' Insurance under Social Security payable if member dies in active service after 18 months of plan membership.

C. Cost

Member and City share cost of plan (currently $5.14 per month contribution for each).