

REPORT ON  
ACTUARIAL VALUATION OF THE  
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM  
JUNE 30, 1981

**TOWERS, PERRIN, FORSTER & CROSBY**  
ONE CENTURY PLAZA  
LOS ANGELES, CALIFORNIA 90067  
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February 1, 1982

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

Members of the Board:

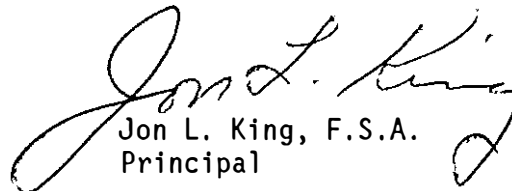
We are pleased to transmit herewith our Report setting forth the results of the valuation of your Retirement System as of June 30, 1981.

The valuation was based upon 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



Charles L. Thorne, A.S.A.  
Actuarial Adviser

JLK/sc  
Enclosure

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

JUNE 30, 1981

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

SECTION I

INTRODUCTION

In accordance with our agreement we have completed the actuarial valuation of the Los Angeles City Employees' Retirement System as of June 30, 1981.

To complete this valuation, the Retirement System Office furnished us with a magnetic tape containing all of the pertinent information for each active member of the System as of June 30, 1981, including such information as current compensation, years of service credited, rates of contribution and accumulated contributions. The System also furnished a tape for persons currently receiving an allowance from the Retirement System, together with the data necessary to determine the value of the allowance.

A summary of the active and retired membership of the System as of June 30, 1981 is shown in the following table. More detailed charts showing the distribution of active members by age and service and the distribution of pensioners by age and year of retirement are in Section VI.

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

SUMMARY OF MEMBERSHIP OF SYSTEM  
AS OF JUNE 30, 1981

ACTIVE MEMBERS

	<u>Number</u>	<u>Annual Salary</u>	<u>Age</u>	<u>Average Monthly Salary</u>
Total 6-30-81	19,730	\$406,846,047	42	\$1,718
Total 6-30-80	19,392	359,131,258	42	1,543
Percent Increase	1.7%	13.3%	--	11.3%

PENSIONERS

	<u>Number</u>	<u>Annual Allowance</u>	<u>Average Monthly Allowance</u>
Total 6-30-81	7,414	\$ 55,972,256	629
Total 6-30-80	7,025	48,915,280	580
Percent Increase	5.5%	14.4%	8.4%

The Retirement Office also furnished an accounting balance sheet setting forth the assets and liabilities of the System as of June 30, 1981. We did not make a physical audit of these assets, and our calculations are based upon the balance sheet as submitted.

The Board of Administration considered the question regarding the appropriate interest rate and salary scale to be used in the current valuation. We concur with the Board's decision to use an 8% interest assumption and a 5-3/4% rate of salary increase. The previous valuation was based on an interest assumption of 7-1/2% and 5-1/4% for salary scale. The current valuation was also based on various probabilities of occurrence and postretirement mortality rates as developed in the last investigation as of June 30, 1980. These probabilities are given in Section VI.

SECTION II  
MEMBER CONTRIBUTIONS

Sections 4.1031 and 4.1040(C) of the retirement ordinance 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. In order to reflect accurately this situation in the current valuation, we have been directed by the Board of Administration to assume that members will contribute at the employee contribution rates specified in the June 30, 1977 valuation report. Should certain members, through a collective bargaining agreement, contribute at a lower rate, the City should contribute 66.48% 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 VI. The following table illustrates these rates:

Member Rates of Contribution Including 15% Factor for COL

<u>Age</u>	<u>Normal</u>	<u>Continuance</u>	<u>Total</u>
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
59	12.19	1.14	13.33

## SECTION III

### 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, 1981. Section IV gives the recommended City contributions called for by the funding method. Section V 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.

#### The Funding Method

The primary funding method of the Los Angeles City Retirement System is the Entry Age Normal Cost funding method. This method defines the Normal Cost as the level percent of salary necessary to fund the projected future benefits over the period from the date of participation to the date of retirement. The Normal Cost can be considered the level percent cost for a new entrant to the System. The City's Normal Cost is the excess of the Normal Cost over members' contributions. The Supplemental Present Value is equal to the excess of total liabilities over the present value of future member contributions and the present value of future City Normal Costs. The excess of the Supplemental Present Value over the assets is called the Unfunded Supplemental Present Value (USPV). The Unfunded Supplemental Present Value is amortized over a fixed period of years by City contributions in addition to Normal Cost. Most of the Unfunded

Supplemental Present Value 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 Entry Age Normal 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. The System is now due for such a review.

#### The Accounting Balance Sheet

Our valuation of the Retirement System as of June 30, 1981 was based upon the following accounting balance sheet furnished by the Retirement Office. As indicated, we accepted this statement of assets without audit.



LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

ACCOUNTING BALANCE SHEET

JUNE 30, 1981

ASSETS

CASH:

In City Treasury	\$ 1,804,382.14
Health Insurance Trust Fund	233,585.59
On Hand	<u>200.00</u>
	\$ 2,038,167.73

RECEIVABLES:

Accrued Interest	\$ 15,517,460.00
Dividends Receivable	510,532.57
Due From Other Funds	1,183,318.92
Due on Securities	2,271,997.75
Other Receivables	<u>58,563.41</u>
	\$ 19,541,872.65

INVESTMENTS:

Temporary Short-Term at Cost	\$ 87,019,521.12
Bonds at Par	709,400,737.15
Premium on Bonds	3,532,056.15
Discount on Bonds	(64,584,613.08)
Stocks at Cost	<u>155,410,138.50</u>
Total Investments	\$890,777,839.84
Total Assets	<u>\$912,357,880.22</u>

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

ACCOUNTING BALANCE SHEET

JUNE 30, 1981

LIABILITIES, RESERVES AND FUND BALANCE

CURRENT LIABILITIES:

Accrued Benefits Payable	\$ 992,524.23
Accounts Payable	756,944.37
Due Insurance Carriers	233,585.59
Due on Securities	<u>186,482.48</u>
Total Current Liabilities	\$ 2,169,536.67

UNEARNED PREMIUM FROM SALE OF STOCK OPTIONS \$ 2,597,900.19

RESERVES:

Actuarial:

Member Contributions	\$219,916,263.57
Annuities	117,656,677.54
Prior Service	(1,198,440.85)
Subsequent Service	410,797,363.10
Cost of Living	149,723,146.27
Family Death Benefit Insurance	<u>7,577,654.72</u>
Total Actuarial Reserves	\$904,472,664.35

Others:

Undistributed Earnings	\$ (2,192,740.15)
Gain/Loss on Equities	<u>5,310,519.16</u>
Total Other Reserves	\$ 3,117,779.01
Total Reserves	\$907,590,443.36

FUND BALANCE -0-

Total Liabilities, Reserves and Fund Balance \$912,357,880.22

### Actuarial Balance Sheet

This actuarial valuation of the Retirement System as of June 30, 1981 is based on demographic assumptions developed during the course of the June 30, 1980 investigation and upon 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, 1981

ASSETS

1. Total Assets from Accounting Balance Sheet			\$ 912,357,880
2. Present Value of Future Contributions of Members			315,500,016
3. Present Value of Future Contributions by the City on Account of:			
a. Basic Pensions:			
i. Normal Cost		\$100,703,797	
ii. Amortization of Certain Liabilities:			
-Prior Service Pensions	\$ 8,252,238		
-Increase due to 1965 Amendments	3,789,531		
-Unfunded Supplemental Present Value	<u>301,805,388</u>	313,847,157	
b. Cost-of-Living Pensions:			
i. Normal Cost		52,237,332	
ii. Amortization of Certain Liabilities:			
-Increase due to 1967 Amendments	15,901,900		
-Unfunded Supplemental Present Value	<u>224,153,633</u>	<u>240,055,533</u>	<u>706,843,819</u>
4. Total Assets			<u>\$1,934,701,715</u>

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

ACTUARIAL BALANCE SHEET

AS OF JUNE 30, 1981

LIABILITIES

5. Current Liabilities		\$ 2,169,536
6. Unearned Premium From Sale of Stock Options		2,597,900
7. Present Value of Benefits Already Granted:		
a. Basic	\$ 434,388,158	
b. Cost-of-Living	<u>237,898,805</u>	672,286,963
8. Present Value of Benefits to be Granted:		
a. Basic	<del>\$1,025,695,853</del>	
b. Cost-of-Living	<del>221,256,029</del>	1,246,951,882
	<i>979,366,338</i>	
	<u><i>267,585,354</i></u>	
9. Reserve for Gain or Loss on Equities		5,310,519
10. Undistributed Earnings Reserve		(2,192,740)
11. Family Death Benefit Insurance Reserve		7,577,655
12. Fund Balance		<u>-0-</u>
13. Total Liabilities		\$1,934,701,715

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 either Charter, ordinance or Board authorization.

Items 5, 6, 9, 10, 11 and 12 were provided by the Retirement Office.

SECTION IV

RECOMMENDED CITY CONTRIBUTIONS

Based on the actuarial valuation of the Retirement System as of June 30, 1981, we respectfully submit the following recommendations in accordance with the provisions of Article XXXIV of the City Charter and related ordinances.

Based on the Entry Age Normal 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 1982-1983 be as follows:

	<u>Recommended City Contributions For 1982-1983</u>	
	<u>Percentage of Salary</u>	<u>plus</u> <u>Fixed-Dollar Amount</u>
a. For Basic Pensions:		
i. Normal Cost	3.14%	---
ii. Prior Service-Minimum Pensions (Charter-Period ending June 30, 1997)	---	\$ 932,312
iii. Increase due to 1965 Amendments (Charter-Period Ending June 30, 1990)	---	606,627
iv. Unfunded Supplemental Present Value	<u>4.11%</u>	<u>---</u>
v. Total Basic Pensions:	7.25%	\$1,538,939

		<u>Recommended City Contributions For 1982-1983</u>	
		<u>Percentage of Salary</u>	<u>plus Fixed-Dollar Amount</u>
b.	For Cost-of-Living Pensions:		
	i. Normal Cost	1.62%	---
	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)	<u>3.05%</u>	<u>---</u>
	iv. Total Cost-of-Living Pensions	4.67%	\$1,796,547
c.	Total Basic and Cost-of-Living Pensions	11.92%	\$3,335,486
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 termination of employment prior to retirement, the City does not have to pay the total amount of employee contributions it subsidizes. Based upon the actuarial valuation carried out as of June 30, 1981, we recommend the City contribute to the System 66.48% of subsidized employee contributions, i.e., for each \$10,000 the City subsidizes, it should contribute \$6,648. We note the amount the City subsidizes is the difference between members' actual contributions and the amount of contributions if they contributed at the levels shown in Section VI.

\* Subject to a pending review of the adequacy of this contribution rate.



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

	<u>City Percentage of Salary Contributions</u>		
	<u>Proposed</u>	<u>Present</u>	<u>Ratio</u>
Normal Cost	4.76	5.36	89%
Amortization of USPV	7.16	7.75	92%
Total	11.92	13.11	91%

The entire decrease in the City's contribution percentage can probably be attributed to the increase in interest and salary assumptions to 8% and 5-3/4%, respectively. There appears to have been a large salary loss for the preceding year. This loss was offset by gains from other sources, particularly from investment gains. The change in assumptions also reduced the USPV from what it would have been under the old assumptions.

We believe if the recommendations 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 V

### 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 Supplemental Present Value

A common method of measuring funding progress is to compare the change in the USPV from one year to another. Last year the USPV was \$546,791,034. This year the USPV increased to \$553,902,690. Because of inherent characteristics of the amortization method, the USPV is expected to increase for several more years before it begins to decrease. The increase would have been more than expected except for the change in assumptions.

We believe the USPV is a misleading measure of funding progress because the USPV is heavily dependent on the particular funding method used and, in particular, the definition of Normal Cost. Thus, we recommend considering other measures of funding progress which are independent of the funding method.

#### Traditional Funding Ratio

The schedule below compares the assets on hand with the present value of benefits earned to date. We have shown these 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, 1981 (New Assumptions)	June 30, 1980 (Old Assumptions)
1. Present Value of Benefits Earned to Valuation Date		
(a) Basic Benefits	\$ 981,235,481	\$ 913,574,079
(b) Cost-of-Living Benefits	<u>387,125,234</u>	<u>351,691,595</u>
(c) Total	\$1,368,360,715	\$1,265,265,674
2. Applicable Assets on Hand		
(a) Basic Benefits	724,856,292	652,692,438
(b) Cost-of-Living Benefits	<u>172,038,718</u>	<u>142,147,274</u>
(c) Total	\$ 896,895,010	\$ 794,839,712
3. Funding Ratio		
(a) Basic Benefits	74%	71%
(b) Cost-of-Living Benefits	44%	40%
(c) Total	66%	63%

A large measure of the increase in the funding ratio results from the change in interest and salary scale assumptions.

### Vested Liability

We estimate that the liability for vested benefits as of June 30, 1981 amounts to \$1,338,000,000. 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 \$896,895,010. Thus, as of June 30, 1981, there was an excess of vested liability over applicable assets on hand amounting to \$441,000,000. Note that applicable assets on hand amount to 67% of the vested liability. The corresponding figure for June 30, 1980 was 64%.

Again, the change in interest and salary scale assumptions was the primary factor in increasing the ratio of assets to vested liabilities.

### 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:

	<u>June 30, 1981</u>	<u>June 30, 1980</u>
(1) Present Value of Accrued Benefits	\$1,186,946,935	\$1,106,046,794
(2) Assets	896,895,010	794,839,712
(3) Percent Funded (2) ÷ (1)	76%	72%

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. However, we feel an 8% rate is appropriate for your System since you use a book valuation of assets.

#### 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:

	<u>June 30, 1981</u>	<u>June 30, 1980</u>
(1) Liability for Retired and Vested Terminations	\$ 672,286,963	\$ 610,117,815
(2) Accumulated Active Member Deposits with Interest	213,838,672	197,634,464
(3) Total (1) + (2)	886,125,635	807,752,279
(4) Assets	896,895,010	794,839,712

In a well-funded system, the assets should at least exceed the liability for members no longer providing services plus the active members' "own" money. Under the new assumptions, this is now the case for the Los Angeles City Retirement System.

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 IV?

SECTION VI  
STATISTICAL INFORMATION

- Mortality after Service Retirement
  
- Mortality after Disability Retirement
  
- 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

EXPECTATION OF LIFE  
1971 Group Annuity\*  
(x-0)(x-6)

<u>Age</u>	<u>Male</u>	<u>Female</u>
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	15.11	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.



EXPECTATION OF LIFE

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

<u>Age</u>	<u>Male</u>	<u>Female</u>
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
106	1.21	2.20
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.

EXPECTATION OF LIFE

1973 DISABILITY

<u>Age</u>		<u>Age</u>		<u>Age</u>	
20	33.87	50	18.50	80	6.35
21	33.37	51	18.06	81	6.02
22	32.86	52	17.61	82	5.70
23	32.34	53	17.18	83	5.39
24	31.82	54	16.75	84	5.11
25	31.29	55	16.32	85	4.84
26	30.76	56	15.90	86	4.59
27	30.22	57	15.48	87	4.35
28	29.67	58	15.07	88	4.12
29	29.13	59	14.66	89	3.90
30	28.58	60	14.25	90	3.70
31	28.03	61	13.84	91	3.50
32	27.48	62	13.44	92	3.31
33	26.94	63	13.03	93	3.12
34	26.40	64	12.62	94	2.95
35	25.87	65	12.22	95	2.77
36	25.34	66	11.81	96	2.61
37	24.82	67	11.40	97	2.44
38	24.30	68	10.99	98	2.28
39	23.78	69	10.58	99	2.13
40	23.27	70	10.17	100	1.98
41	22.77	71	9.77	101	1.83
42	22.28	72	9.36	102	1.68
43	21.78	73	8.95	103	1.53
44	21.30	74	8.55	104	1.38
45	20.82	75	8.15	105	1.22
46	20.34	76	7.77	106	1.05
47	19.88	77	7.40	107	.92
48	19.41	78	7.04	108	.75
49	18.96	79	6.69	109	.50

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

01/09/81  
 13.46.16

AGE NEAREST	ORDINARY WITHDRAW	VESTED WITHDRAW	ORDINARY DEATH	ORDINARY DISABILITY	SERVICE RETIRE	SERVICE DISABILITY	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	0.0001	0.0	0.0	0.0	0.0	0.0
26	0.1950	0.0	0.0005	0.0001	0.0	0.0	0.0	0.0	0.0
27	0.1790	0.0	0.0006	0.0001	0.0	0.0	0.0	0.0	0.0
28	0.1670	0.0	0.0006	0.0001	0.0	0.0	0.0	0.0	0.0
29	0.1520	0.0	0.0007	0.0002	0.0	0.0	0.0	0.0	0.0
30	0.1410	0.0	0.0007	0.0003	0.0	0.0	0.0	0.0	0.0
31	0.1280	0.0	0.0008	0.0003	0.0	0.0	0.0	0.0	0.0
32	0.1150	0.0	0.0009	0.0004	0.0	0.0	0.0	0.0	0.0
33	0.1080	0.0	0.0009	0.0005	0.0	0.0	0.0	0.0	0.0
34	0.0990	0.0	0.0010	0.0006	0.0	0.0	0.0	0.0	0.0
35	0.0910	0.0	0.0011	0.0007	0.0	0.0	0.0	0.0	0.0
36	0.0830	0.0	0.0012	0.0008	0.0	0.0	0.0	0.0	0.0
37	0.0760	0.0	0.0013	0.0009	0.0	0.0	0.0	0.0	0.0
38	0.0690	0.0	0.0015	0.0010	0.0	0.0	0.0	0.0	0.0
39	0.0640	0.0	0.0016	0.0011	0.0	0.0	0.0	0.0	0.0
40	0.0600	0.0	0.0018	0.0013	0.0	0.0	0.0	0.0	0.0
41	0.0560	0.0	0.0020	0.0014	0.0	0.0	0.0	0.0	0.0
42	0.0510	0.0	0.0021	0.0015	0.0	0.0	0.0	0.0	0.0
43	0.0460	0.0	0.0022	0.0017	0.0	0.0	0.0	0.0	0.0
44	0.0420	0.0	0.0024	0.0018	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	0.0022	0.0	0.0	0.0	0.0	0.0
47	0.0360	0.0	0.0031	0.0024	0.0	0.0	0.0	0.0	0.0
48	0.0340	0.0	0.0033	0.0026	0.0	0.0	0.0	0.0	0.0
49	0.0330	0.0	0.0036	0.0028	0.0	0.0	0.0	0.0	0.0
50	0.0310	0.0	0.0041	0.0030	0.0030	0.0	0.0	0.0	0.0
51	0.0290	0.0	0.0044	0.0032	0.0070	0.0	0.0	0.0	0.0
52	0.0280	0.0	0.0048	0.0034	0.0110	0.0	0.0	0.0	0.0
53	0.0260	0.0	0.0054	0.0036	0.0160	0.0	0.0	0.0	0.0
54	0.0250	0.0	0.0059	0.0039	0.0210	0.0	0.0	0.0	0.0
55	0.0230	0.0	0.0040	0.0042	0.0800	0.0	0.0	0.0026	0.0
56	0.0210	0.0	0.0044	0.0044	0.0600	0.0	0.0	0.0030	0.0
57	0.0200	0.0	0.0049	0.0047	0.0700	0.0	0.0	0.0032	0.0
58	0.0180	0.0	0.0053	0.0050	0.0800	0.0	0.0	0.0036	0.0
59	0.0160	0.0	0.0059	0.0052	0.0900	0.0	0.0	0.0040	0.0
60	0.0140	0.0	0.0066	0.0055	0.1400	0.0	0.0	0.0044	0.0
61	0.0120	0.0	0.0074	0.0058	0.1250	0.0	0.0	0.0049	0.0
62	0.0100	0.0	0.0082	0.0061	0.1350	0.0	0.0	0.0054	0.0
63	0.0070	0.0	0.0090	0.0064	0.1500	0.0	0.0	0.0060	0.0
64	0.0030	0.0	0.0100	0.0067	0.1900	0.0	0.0	0.0066	0.0
65	0.0	0.0	0.0110	0.0	0.3000	0.0	0.0	0.0074	0.0
66	0.0	0.0	0.0122	0.0	0.2000	0.0	0.0	0.0081	0.0
67	0.0	0.0	0.0135	0.0	0.2000	0.0	0.0	0.0090	0.0
68	0.0	0.0	0.0146	0.0	0.2000	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)

01/09/81  
 13.46.16

AGE NEAREST	ORDINARY WITHDRAW	VESTED WITHDRAW	ORDINARY DEATH	ORDINARY DISABILITY	SERVICE RETIRE	SERVICE DISABILITY	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	0.0030	0.0	0.0	0.0	0.0
51	0.0400	0.0	0.0024	0.0024	0.0070	0.0	0.0	0.0	0.0
52	0.0380	0.0	0.0026	0.0028	0.0120	0.0	0.0	0.0	0.0
53	0.0350	0.0	0.0028	0.0032	0.0170	0.0	0.0	0.0	0.0
54	0.0330	0.0	0.0030	0.0036	0.0230	0.0	0.0	0.0	0.0
55	0.0310	0.0	0.0033	0.0040	0.0500	0.0	0.0	0.0	0.0
56	0.0290	0.0	0.0036	0.0040	0.0400	0.0	0.0	0.0	0.0
57	0.0270	0.0	0.0039	0.0040	0.0500	0.0	0.0	0.0	0.0
58	0.0250	0.0	0.0043	0.0040	0.0700	0.0	0.0	0.0	0.0
59	0.0230	0.0	0.0047	0.0040	0.0800	0.0	0.0	0.0	0.0
60	0.0220	0.0	0.0052	0.0	0.2500	0.0	0.0	0.0	0.0
61	0.0210	0.0	0.0057	0.0	0.1200	0.0	0.0	0.0	0.0
62	0.0200	0.0	0.0065	0.0	0.1500	0.0	0.0	0.0	0.0
63	0.0150	0.0	0.0073	0.0	0.1800	0.0	0.0	0.0	0.0
64	0.0070	0.0	0.0081	0.0	0.2100	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	0.2000	0.0	0.0	0.0	0.0
67	0.0	0.0	0.0121	0.0	0.2300	0.0	0.0	0.0	0.0
68	0.0	0.0	0.0139	0.0	0.2700	0.0	0.0	0.0	0.0
69	0.0	0.0	0.0159	0.0	0.3500	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

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM  
APPLICABLE TO MEMBERS COVERED UNDER "BETA" FORMULA  
115% NORMAL CONTRIBUTION RATES

<u>Age</u>	<u>Normal Contribution Rate</u>	<u>Age</u>	<u>Normal Contribution Rate</u>
16	8.00%	40	10.19%
17	8.04	41	10.29
18	8.08	42	10.41
19	8.14	43	10.52
		44	10.64
20	8.20	45	10.76
21	8.27	46	10.89
22	8.34	47	11.01
23	8.42	48	11.12
24	8.50	49	11.24
		50	11.34
25	8.58	51	11.44
26	8.66	52	11.55
27	8.75	53	11.65
28	8.86	54	11.75
29	8.96		
		55	11.85
30	9.06	56	11.94
31	9.17	57	12.03
32	9.28	58	12.11
33	9.40	59	12.19
34	9.50		
35	9.61		
36	9.73		
37	9.84		
38	9.96		
39	10.07		

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

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM  
APPLICABLE TO MEMBERS COVERED UNDER "BETA" FORMULA

115% SURVIVOR CONTRIBUTION RATES

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

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

<u>Age</u>	<u>Survivor Contribution Rate</u>	<u>Age</u>	<u>Survivor Contribution Rate</u>
		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  
AGE/SERVICE DISTRIBUTION    TOTAL MEMBERS

AGE *****	** SERVICE **												TOTAL *****	
	0-1 *****	1-2 *****	2-3 *****	3-4 *****	4-5 *****	5-9 *****	10-14 *****	15-19 *****	20-24 *****	25-29 *****	30-34 *****	35- *****		
15-19	*NO. * 96	6	0	0	0	0	0	0	0	0	0	0	0	102
	*TOT.AMT* 1115338	77170	0	0	0	0	0	0	0	0	0	0	0	1192508
	AVE.AMT* 11618	12862	0	0	0	0	0	0	0	0	0	0	0	11691
20-24	*NO. * 639	317	53	68	21	5	0	0	0	0	0	0	0	1103
	*TOT.AMT* 8263494	4446348	709295	951304	306948	67607	0	0	0	0	0	0	0	14744996
	AVE.AMT* 12932	14026	13383	13990	14617	13521	0	0	0	0	0	0	0	13368
25-29	*NO. * 652	487	132	289	124	651	36	0	0	0	0	0	0	2371
	*TOT.AMT* 9717259	7988768	2302732	4982150	2115986	10833614	588485	0	0	0	0	0	0	38528994
	AVE.AMT* 14904	16404	17445	17239	17064	16641	16347	0	0	0	0	0	0	16250
30-34	*NO. * 457	339	126	282	125	1230	542	10	1	0	0	0	0	3112
	*TOT.AMT* 7411780	6045912	2298173	5608190	2699280	25111710	10708850	190086	38273	0	0	0	0	60112254
	AVE.AMT* 16218	17835	18239	19887	21594	20416	19758	19009	38273	0	0	0	0	19316
35-39	*NO. * 283	201	67	163	92	771	925	245	9	1	1	0	0	2758
	*TOT.AMT* 4898748	3678731	1451217	3405046	2052561	17330629	21740994	5713250	188834	41551	38168	0	0	60539729
	AVE.AMT* 17310	18302	21660	20890	22310	22478	23504	23319	20982	41551	38168	0	0	21951
40-44	*NO. * 175	105	46	87	39	460	669	448	165	9	2	0	0	2205
	*TOT.AMT* 2820415	1902687	925475	1699815	737912	9892638	14848038	11134696	3950044	216500	56208	0	0	48184428
	AVE.AMT* 16117	18121	20119	19538	18921	21506	22194	24854	23940	24056	28104	0	0	21852
45-49	*NO. * 107	76	29	70	35	335	474	378	462	131	3	2	2	2102
	*TOT.AMT* 2023402	1417093	577905	1318359	787373	7183840	10026866	8856390	11396296	3096606	75438	48420	46807988	
	AVE.AMT* 18910	18646	19928	18834	22496	21444	21154	23430	24667	23638	25146	24210	22268	
50-54	*NO. * 83	62	27	59	38	288	376	330	500	352	112	2	2	2229
	*TOT.AMT* 1427001	1204603	560118	1159806	820847	5911082	8018341	7762254	12055968	8754752	3026133	55514	50756419	
	AVE.AMT* 17193	19429	20745	19658	21601	20525	21325	23522	24112	24871	27019	27757	22771	
55-59	*NO. * 44	38	20	57	30	267	373	287	370	301	292	27	2	2106
	*TOT.AMT* 795573	716918	367725	1091875	670561	5684447	8096839	6491947	8313473	7732925	8116739	784031	48863053	
	AVE.AMT* 18081	18866	18386	19156	22352	21290	21707	22620	22469	25691	27797	29038	23202	
60-64	*NO. * 26	27	11	35	13	190	245	188	170	152	137	19	2	1213
	*TOT.AMT* 505847	623037	239538	760771	304300	4042332	5082108	4376557	3666270	3523263	3907682	667237	27698942	
	AVE.AMT* 19456	23075	21776	21736	23408	21275	20743	23280	21566	23179	28523	35118	22835	
65-	*NO. * 8	4	3	8	8	72	95	71	66	33	47	14	2	429
	*TOT.AMT* 149417	194119	42134	197606	147890	1475475	1945708	1600080	1452067	717816	1192588	301836	9416736	
	AVE.AMT* 18677	48530	14045	24701	18486	20493	20481	22536	22001	21752	25374	21560	21950	
TOTAL	*NO. * 2570	1662	514	1118	525	4269	3735	1957	1743	979	594	64	2	19730
	*TOT.AMT* 39128274	28295386	9474312	21174922	10643658	87533374	81056229	46125260	41061225	24083413	16412956	18570384	406846047	
	AVE.AMT* 15225	17025	18433	18940	20274	20504	21702	23569	23558	24600	27631	29016	20621	

AVERAGE AGE \* 41.7 \*      AVERAGE SERVICE \* 10.2 \*



LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM  
 DISTRIBUTION OF PENSIONERS BY YEAR OF RETIREMENT AND BY ATTAINED AGE AS OF 6/81

TOTAL OF ALL MEMBERS

ATTAINED AGE *****	PRE '61 ***	** YEAR OF RETIREMENT **																			TOTAL *****	AVG AMT *****		
		'61 ***	'62 ***	'63 ***	'64 ***	'65 ***	'66 ***	'67 ***	'68 ***	'69 ***	'70 ***	'71 ***	'72 ***	'73 ***	'74 ***	'75 ***	'76 ***	'77 ***	'78 ***	'79 ***			'80 ***	
0- 29	3	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	5	2	12	4361	
30- 34	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	5	6	2	17	4920		
35- 39	0	0	0	0	0	0	0	1	0	0	0	0	2	0	3	8	5	4	10	7	7	47	5443	
40- 44	0	0	0	0	0	0	0	0	0	1	2	4	2	4	5	7	7	9	17	16	1	75	5261	
45- 49	0	0	0	0	0	0	0	2	0	1	2	6	3	5	2	8	11	7	9	13	5	74	5002	
50- 54	1	0	1	0	0	1	1	4	0	2	3	9	10	9	10	13	21	23	26	24	13	171	6002	
55- 59	4	1	1	2	2	1	6	3	6	2	6	19	11	17	24	24	36	81	157	131	131	665	9087	
60- 64	6	4	1	6	3	0	5	14	11	11	11	22	48	44	73	114	158	194	234	208	185	1352	9646	
65- 69	11	4	5	7	1	15	11	38	37	46	38	70	67	123	118	182	201	174	178	138	115	1579	8498	
70- 74	28	12	17	37	22	39	50	72	60	65	66	84	109	143	97	124	116	64	49	33	22	1309	7065	
75- 79	118	27	39	61	34	75	73	67	74	54	51	72	64	86	35	43	12	1	2	0	0	988	6177	
80- 84	182	40	43	59	33	79	45	55	56	28	27	13	4	4	0	1	0	0	1	0	0	670	5732	
85- 89	185	30	31	32	29	30	12	2	2	2	1	2	1	1	0	0	0	0	0	0	0	360	4766	
90- 94	65	10	0	3	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	81	3947	
95- 99	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	4323	
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	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	0
TOT NUM	617	128	138	207	124	242	204	258	247	212	207	301	323	437	367	524	569	557	688	581	483	7414		
AVG AMT	3912	4860	4994	4822	4480	5940	5337	5430	5814	5481	5631	6058	6203	8062	7634	8902	9743	9396	9654	9968	10303			

\* AVG AMT \* 7550

\* TOT. PEN. 55972256 \*

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

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

10 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 prior to age 60).

Prior Formula - 2% of Final Monthly Compensation for each year of service (reduced if retirement prior to 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 that 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.

5. Deferred Service Retirement (continued)

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 prior to 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 had he been granted a disability retirement allowance the day before he 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.

6. Death Prior to Retirement (continued)

C. Eligible for Retirement

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

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 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.

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).