REPORT ON

ACTUARIAL VALUATION OF THE

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

JUNE 30, 1982

TOWERS, PERRIN, FORSTER & CROSBY

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November 16, 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, 1982.

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. Principal

Charles L. Thorne, A.S.A.

Consultant

JLK/jh Enclosure

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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, 1982.

To complete this valuation, the Retirement System Office furnished us with a magnetic tape containing all the pertinent information for each active member of the System as of June 30, 1982, 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. We increased the benefit amounts for retired members to reflect the 3% cost-of-living increase granted as of July 1, 1982.

A summary of the active and retired membership of the System as of June 30, 1982 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.

SUMMARY OF MEMBERSHIP OF SYSTEM AS OF JUNE 30, 1982

ACTIVE MEMBERS

			Average		
	Number	Annual Salary	Age	Monthly Salary	
Total 6-30-81	19,730	\$ 406,846,047	41.7	\$ 1,718	
Total 6-30-82	18,661	431,723,128	42.2	1,928	
Percent Increase	- 5.4%	6.1%	·	12.2%	

PENSIONERS

	Number	Annual Allowance	Average Monthly Allowance
Total 6-30-81	7,414	\$ 55,972,256	629
Total 6-30-82	7,819	62,853,040	670
Percent Increase	5.5%	12.3%	6.5%

The Retirement Office also furnished an accounting balance sheet setting forth the assets and liabilities of the System as of June 30, 1982. We did not make a physical audit of these assets, and our calculations are based on the balance sheet as submitted.

The current valuation was based on the same actuarial assumptions as used in our valuation as of June 30, 1981. They are an 8% interest assumption and a 5-3/4% rate of salary increase. 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.

Effective this year, the procedure for accounting for the Undistributed Earnings Account will be changed. In the process of implementing this change there will be a one-time transfer later this year of 80% of the current Undistributed Earnings Account to the City reserve accounts. This transfer has been reflected in the applicable assets used to determine the City contribution rate recommended in this valuation report.

SECTION II

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 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 66.95% 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>	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

We recommend the monthly contribution of \$5.14 per participating member be continued for Family Death Benefits.

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, 1982. 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.

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.

Accounting Balance Sheet

Our valuation of the Retirement System as of June 30, 1982 was based on the following accounting balance sheet furnished by the Retirement Office. As indicated, we accepted this statement of assets without audit.

STATEMENTS OF NET ASSETS AVAILABLE FOR PLAN BENEFITS

Preliminary Unaudited

		June	30	
	19	982		981
ASSETS: Cash Receivables:		\$ 4,153,976		\$ 2,038,168
Accrued interest and dividend income Other Receivables Proceeds from sale of investments	\$ 20,062,778 1,475,594 2,021,132	23,559,504	\$ 16,027,993 1,241,882 2,271,998	19,541,873
INVESTMENTS (Note): Temporary Short-Term Bonds	160,535,004 683,142,397		87,019,521 648,348,180	
Common Stocks	158,959,874	1,002,637.,275	155,410,139	890,777,840
		1,030,350,755		912,357,881
UNEARNED PREMIUM FROM SALE OF STOCK OPTIONS		(1,258,675)		(2,597,900)
ACCOUNTS PAYABLE AND ACCRUED EXPENSES		(1,806,753)		(2,169,537)
NET ASSETS AVAILABLE FOR PLAN BENEFITS		\$1,027,285,327		\$907,590,444
MEMBERS' CONTRIBUTIONS		\$ 239,310,491		\$219,916,264
RESERVE FOR RETIREMENT ALLOWANCE FOR RETIRED MEMBERS AT ACTUARIAL VALUATION		672,286,963		672,286,963
CITY CONTRIBUTIONS AVAILABLE FOR FUTURE RETIREES		115,687,873		15,387,217
TOTAL		\$1,027,285,327		\$907,590,444

STATEMENT OF RESERVE AND FUND BALANCE ACCOUNTS

JUNE 30, 1982

	JUNE	E 30
ACTUARIAL	1982	1981
Member Contributions	\$ 239,310,491	\$ 219,916,264
Annuities	132,832,231	117,656,678
Prior Service	0	(1,198,441)
Subsequent Service	452,299,740	410,797,363
Cost of Living.	177,745,337	149,723,146
Family Death Benefit Insurance	8,217,291	7,577,655
Total Actuarial	\$1,010,405,090	\$ 904,472,665
OTHER		
Undistributed Earnings	\$ 8,932,244	\$ (2,192,740)
Gain/Loss on Equities	7,947,993	5,310,519
Fund Balance	0	0
Total Other	\$ 16,880,237	\$ 3,117,779
Total Reserves & Fund Balance	\$1,027,285,327	\$ 907,590,444

Actuarial Balance Sheet

This actuarial valuation of the Retirement System as of June 30, 1982 is based on demographic assumptions developed during the June 30, 1980 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.

ACTUARIAL BALANCE SHEET

AS OF JUNE 30, 1982

ASSETS

1. Total Assets from Accounting Balance Sheet

\$1,030,350,755

2. Present Value of Future Contributions of Members

338,335,300

- 3. Present Value of Future Contributions by the City on Account of:
 - a. Basic Pensions:

i. Normal Cost

\$105,858,200

ii. Amortization of Certain

Liabilities:

- Prior Service Pensions \$ 7,942,813
- Increase due to 1965 Amendments

3,486,066

- Remaining Unfunded

Present Value

Supplemental

353,697,176 342,268,297

b. Cost-of-Living Pensions:

i. Normal Cost

55, 189, 300

ii. Amortization of Certain

Liabilities:

15,377,506

- Increase due to 1967 Amendments

Remaining Unfunded

Supplemental Present Value

242,666,691 258,044,197 772,788,873

4. Total Assets

\$2,141,474,928

ACTUARIAL BALANCE SHEET

AS OF JUNE 30, 1982

LIABILITIES

5.	Current Liabilities		\$ 1,806,753
6.	Unearned Premium From Sale of Stock Options		1,258,675
7.	Present Value of Benefits Already Grante	ed:	
	a. Basic \$ b. Cost-of-Living	500,657,692 260,494,675	761,152,367
8.	Present Value of Benefits to Be Granted:	}	
	a. Basic \$1, b. Cost-of-Living	,059,169,300 300,136,100	1,359,305,400
9.	Reserve for Gain or Loss on Equities		7,947,994
10.	Undistributed Earnings Reserve		1,786,448
11.	Family Death Benefit Insurance Reserve		8,217,291
12.	Fund Balance		0
13.	Total Liabilities		\$2,141,474,928

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.

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, 1982, 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 1983-1984 be as follows:

		Recommended City Contribution For 1983-1984			ions
		Percentage of Salary	plus	Fixed-Do	
a.	For Basic Pensions:				
	i. Normal Cost	3.07%		•	
	<pre>ii. Prior Service-Minimum Pensions (Charter-Period ending June 30, 1997)</pre>			\$ 927,9	955
	iii. Increase due to 1965 Amendments (Charter-Period ending June 30, 1990)			606,6	52 7
	<pre>iv. Unfunded Supplemental Present Value</pre>	4.55%			<u></u>
	v. Total Basic Pensions:	7-62%		\$ 1,534,5	582

		Recommended City Contributions For 1983-1984	
b.	For Cost-of-Living Pensions:	Percentage of Salary p	Fixed-Dollar
	i. Normal Cost	1.61%	
	 ii. Increase due to 1967 Amendment (Charter-Period ending June 30, 1997) iii. Unfunded Supplemental 		\$ 1,796,547
	Present Value (Period ending June 30, 2004)	3.23%	
	<pre>iv. Total Cost-of-Living Pensions</pre>	4.84%	\$ 1,796,547
C•	Total Basic and Cost-of-Living Pensions	12.46%	\$ 3,331,129

d. For Family Death Benefits: \$5.14 per month for each participating member in the Family Death Benefit Insurance Plan. Based on our current review of this program we determined liabilities for existing claims amount to \$7.8 million. We note that this is approximately equal to the Family Death Benefit reserves as of June 30, 1982, namely \$8,217,291. We therefore recommend the \$5.14 rate be continued.

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, 1982, we recommend the City contribute to the System 66.95% of subsidized employee contributions, i.e., for each \$10,000 the City subsidizes, it should contribute \$6,695. 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 VI.

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

	City Percent	age of Salary Cor	tributions
	Proposed	Present	Ratio
Normal Cost	4.68	4.76	•98%
Amortization of USPV	7.78	7.16	1.09%
Total	12 •46	11.92	1.05%

The City's contribution percentage for normal cost as expected under the Entry

Age Funding Method remained essentially unchanged.

The main reason for the increase in the City's contribution percentage for the amortization of the USPV was a salary loss. Members' average salaries have increased 12.2% instead of the assumed 5-3/4%. We estimate this salary loss has raised the contribution percentage for the amortization of the USPV by approximately 72 basis points. On the positive side, a substantial investment gain together with the change in the method of accounting for the undistributed earnings reserve lowered the contribution percentage for the amortization of the USPV by approximately 18 basis points.

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 \$553,902,690. This year the USPV increased to \$611,741,373. Because of inherent characteristics of the amortization method, the USPV is expected to increase for several more years before it begins to decrease.

We believe the USPV 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.

Traditional Funding Ratio

The schedule below compares the assets on hand with the present value of benefits earned to date. 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."

	•	<u>.</u>	June 30, 1981	June 30, 1982
1.	Present Value of Benefits Earned to Valuation Date			
	(a) Basic Benefits	\$	918,235,481	\$1,094,664,192
	(b) Cost-of-Living Benefits		387,125,234	432,999,675
	(c) Total		1,368,360,715	1,527,663,867
2.	Applicable Assets on Hand			
	(a) Basic Benefits		724,856,292	806,065,516
	(b) Cost-of-Living Benefits	_	172,038,718	203,268,078
	(c) Total	\$	896,895,010	\$1,009,333,594
3.	Funding Ratio			
	(a) Basic Benefits		73.9%	73.6%
	(b) Cost-of-Living Benefits		44.4%	46.9%
	(c) Total		65.5%	66.1%

Vested Liability

We estimate that the liability for vested benefits as of June 30, 1982 amounts to \$1,490,000,000. 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 \$1,009,333,594. Thus, as of June 30, 1982, there was an excess of vested liability over applicable assets on hand amounting to \$480,000,000. Note that applicable assets on hand amount to 68% of the vested liability. The corresponding figure for June 30, 1981 was 67%.

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, 1981	June 30, 1982
(1) Present Value of Accrued Benefits	\$1,186,946,935	\$1,325,277,167
(2) Assets	896,895,010	1,009,333,594
(3) Percent Funded (2)/(1)	75.6%	76.2%

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>	June 30, 1982		
(1) Liability for Retired and Vested Terminations	\$ 672,286,963	\$ 761,152,367		
(2) Accumulated Active Member Deposits with Interest	213,838,672	232,997,000		
(3) Total (1)+(2)	886,125,635	994,149,367		
(4) Assets	896,895,010	1,009,333,594		

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.

This is 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

- o Mortality after Service Retirement
- Mortality after Disability Retirement
- Probability of Occurrence (of Decrements from Active Service)

Male

Female

- Member Contribution Rates
- o Distribution of Active Members by Age and Service
- Summary of Major Plan Provisions

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

Age	Male	<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	27.7 8	33.20
50	26.91	32.28
30	20131	52125
51	26.05	31.36
	25.20	30.45
52 53		29.55
53	24.36	
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
60	10.70	23.33
61	18.00	22.71
62	17.26	21.90
63	16.53	21.10
	15.81	20.31
64		19.53
65	15.00	19+33
66	14.43	18.76
67	13.77	18.00
68	13.13	17.26
69	12.50	16.53
	11.91	15.81
7 0	11.31	13 •0 1

^{*} This table was used with a two-year age setback. -22-

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

Age	<u>Male</u>	Female
71	11.33 years	15.11 years
72	10.79	14.43
73	10.26	13.77
74	9.74	13.13
7 5	9.24	12.50
7 6	. 8 .7 6	11.91
77	8.28	11.33
7 8	7.83	10 .7 9
7 9	7.41	10.26
80	, 7. 00	9.74
81	¹ 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
8 7	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.

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

Male	<u>Female</u>			
1.21 years	2.20 years			
1.04	2.04			
.88	1.88			
.71	1.72			
•50	1.55			
	1.21 years 1.04 .88 .71			

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

EXPECTATION OF LIFE

1973 DISABILITY

Age		<u>Age</u>		<u>Age</u>	
0.0	33.87	50	18.50	80	6.35
20 21	33.37	51	18.06	81	6.02
21	32.86	52	17.61	82	5.70
23	32.34	53	17.18	83	5.39
23 24	31.82	5 4	16.75	84	5.11
24	31.02	34	10170		
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
2,	271.0				
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	7 6	7.77	106	1.05
47	19.88	77	7.40	107	.92
48	19.41	7 8	7.04	108	.75
49	18.96	7 9	6.69	109	•50

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25	0-2140	0 - 0	1.0005	0.0(01 0.0(01	0 • 0	∪ • 0	0.0	0.0	0.0
26	0.1750	0.0	C-0005	0.3(01	\$ • O	3 - 0	0.0	0 • 0	0.0
27	0.1790	2.0	^•0036	0.3691	€ • ಟ	0.0	0.0	0 • 0 0 • 0	0 - 0
20	3.1670	C • C	0.0006	0-0101	6.•υ.	U ⋅ C	0.0	0.0	0.0
29	0.1520	r → c	0.0007	0.0002	0.0	0 • C	0.0	0 • 0 0 • 0	0 • 0
36	0-1410	ı) - 6	0.0007	50)5.0	0.0	û . 0	0.0	0-0	0.0
31	9.12#0	0.0	0.0000	E010.0 E010.0	0 • 0	0.0	0.0	0 - 0	0.0
32	0.1150		0.0009	0-0004	0 • 0	0.0	0.0	0.0	0 - 6
5.5	0-1000	0.0	0.0005	0.0C04 0.0C05	0_0	0.0	0.0	0 • 0 0 • 0	0 • 0
34	0.0456	0-0	ï•8¢10	0-0106	0 - 0	0.3	0.0	0.0	0.0
35	0.0710	0.0	0.0011	0.0006	0.0	0-0	0.0	0.0	0.0
36	0.0830	U • 0	0.0012	0.0008 0.0009 0.0010 0.0011 0.0013	0 - 0	0 0	0.0	0.0	
37	0.0760	0.0	0.0012	0.000	0.0	0.0	0.0	0.0	0 • 0
38	0.0690	0.0	ξ.0C15	0.0610	0.0	0 0	0 • 0	0 • 0 0 • 0	0.0
39	0-6648	(•0	8.0016	0.0610	0.0	0.0	0.0	0 - 0	
40	0.0600	0.0	0.8C1P	0.0611	0 0	0.0	0.0	0 • 0 0 • 0	0 •0
41	0.0560	0 0	0.0020	0.0(13	0.0	0.0	0.0	0 • 0	
42	0.0510	0 • 0 0 • 0	3 0031	0.0014 0.0015 0.0017 0.0014	0.0	0.0	0.0	0 • 0 0 • 0	0.0
43		0.0	0.0021	. 0.0013	0.0	y • U	0.0	0.0	0 • 0
	0-7460	0 • 0	C.0022	0.0(17	0.0	0.0	0.0	0 . 0	0 -0
44	0.0420		C-0124	0.0614	0 - 0	0 • 0	0.0	0 • 0	0 • 0
45	0.0400	0.0	0.0026 0.0029	0.0(20 C.0(22	C • 0	0 • 0	0 • 0	0 - 0	0.0
46	0-0390	0.0	C-0C24	C-0 (55	0.0	0.0	0 • 0	0 • 0	0 • 0
47	0.0360	0.0	0.0031	0.0(24 0.0(26	0 • 0	0.0	0.0	0 • 0	0 • 0
4.6	0.0340	0.0	0.0033	0.0(26	0.0	0.0	0 • 0	0 • 0	0 • 0
49	0.0330	0.0	C • C (36	0.0(25 0.0(30	C • 3	0 ∙ 0	3.0	0.0	0 • C
ະບ	0.0310	0.0	0.0041	0.0630	0.0036	0.0	0.0	0 • 0 0 • 0 0 • 0 0 • 0	0 • 0
S 1	0.0250	0 • 0	0.0094	0.3832	0-0010	U • O	0.0	0 • 0	0 • 0
52	0-3280	0.0	0.0043	0.0034	C-011C	0 • 0	0.0	0 • 0	0 •0
53	0.1260	0.0	0.004° 0.0034	0.0036	C.016C	3.0	0 • 0	0.0	0 • 0
54	0.0250	0-0 0-0 0-0 0-0 0-0 0-0	ۥ0159	0.0(33 0.0(42	0.0218	Û • 0	0.0	0 • 0	0 • 6
έΰ	0.0000	2.5	0.0046		0.0800	0 • 8	0.0	0.0026	0 • 0
56	11 -1 -1 -1	t" . 0	0.0040 0.0044 0.4045 0.0053 0.0095 0.0066 0.0074 0.0082	0.0(44	0.0500	り • 0	0.0	0.0030	0.0
£ 7	0.1200	1.n	0-4649	0.8647	0.8728	0.0	0 • 0	0.0032	0.0
€. ৮	0-01-0	0.0	C - 0 0 ≥ 3	0.0050	0.0800	û - 0	0.0	0.0036	0 • 0
સું દ્વ	0-0160	0.•3 0.•3	C.0C# '3	0.0(92	0.000000	0.0	0.0	0.0040	
€ C	0.4141	0.0	0.0000	0.9(55	0-1400	0.0	0.0	0.0044	
<i>t</i> 1	0.9140 0.0125	(• ↑ ↑ • □	-0074	0.0(5-	0-1250	3.0	G • 0	0.0049	0.0
1-2	0.0105	8.0	F.0082	0.0(61	0.13:0	0.0	0.3	0.3054	0.0
6.2	0010	`•0	02 0	0.0Cé4	0.1500.	0.0	0.0	0.0360	0.0
£4	0.2035	را • د	6.0103	0.0(67	0.1900	3.0	0.6	0.0066	0 • C
15	₫ •1		0110	0.3	0.3000	3.3	J.3	0.3074	0.0
€ 6.	.	ť • L	0.0122	0.0	C-2338	3.0	0.0	0-0081	0.0
67	ă •	t • ?	0.0135	0.1	0.2000	0 - 0		0.0090	0.0
£.,	C • "	(1	(=0145				0-0		
ے ہے	0.			0.0	0-2000 1 050 x	d - 3	0.0	0.0097	0 • 0
7 U	9 - 3 • 1		(.01±0 j.a	0.3 0.3	(.259J	Û • Û	0 • 0	0.3107	0 • 0 0 • 0 ERS, PERRIN, FORSTER
	41 🕳	i • ¹	I	1	1.0003	J.S	0 • 0		0.46

LOS ANGELES CITY EMPLOYEES FEMALE GENERAL MEMBERS

1 = 1 = 1 = 1 = 1 = 1 = 1											
PROBABILITY	OF	OCCURRENCE	(INCLUDING	ELIGIBILITY)							

Ast AREST	CREIMARY HITHIHAR	VERTER RIGHTRAN	CPEINARY CEATH	LRCINARY CISABLTY	BE ET A.	BILL CHI TY	SERVICE CSATH	DWE SWC RET	DWE DIS RET
15	9.7			0.J 0.0 0.0 0.0 0.5 0.0 0.0 0.0 0.0 0.0 0.0	0.0		0.0	0.0	0.0
1÷	0 +í	0 • 0 0 • 0	· • 0	0 - 0	0.0	ปิ • 0	0.0	0.0	0.0
20	0.2110	$\mathcal{C} = \mathcal{C}$	0.0002) - C	C • 0	0.0	0.0	0.0	0 • C
21	0.2040	0 • 0	0.0002	0 - 0	0.3	0 • C	0.0	0.9	0 • C
22	0.1470	C • 0	(-0002	0 • S	0.0	3.0	0.0	0.0	0.0
23	0.19:0	0 • 0 (• 0	C-3CC2	0.0	C • O	0.0	0.0	0.0	0.0
24		0.0	6.00,3	0 • 0	0 • 0	3.0	. 0.0	0.0	0.0
25	0.1730	0.0	0.0004	0.0	C • 3	0.0	0.0	0.0	0 •0
26	0.1670	€ •0	0.0004	0.0	0.0	0.0	. 0.0	0.0	0.0
27	0.1510	0.0	0.0005	0.0	C = Q	0.0	0.0	0.0	0.0
2 H	0.1530	0.0	0.0005	0.0	0.0	3.3	0-0		
25	J.14:0	C • 0	0.0006	0.0	0.0	0.0	0.0	0 • 0 0 • 0	0.0
30	0.1410	0.5	0.0000	0.0001	0-0	0.00	0.0	0.0	0.0
31	0.1360	0.0	0.0007	0.0001	0-8	0.0	0 • 3 0 • 0	0.0	0.0
32	0.1300	0.0	3.0007	0.0001	0.0	0.0	0-0	0.0	0 -0
33	0.1230	0 • C	(-000;	0.0001 0.0001	u = 0	0.0	1 = U	0.0	0 -0
34	0-1160	0.0	(-0007	0.0601	0.0	0-0	0-0	0.0	0.0
35	0.1050	0.0	0.0009	0.0()1 0.0(02	C - O	0.0	0.0	0.0	0 - 0
36	0.1000	0.0	E-0CT0	0-0102	0.0	0.0	0.0		
37	9.5200	0.0	0.0010	0.0(C2 0.0(O2	6 - 0	0.0	0.0	0.0	0 -0
34	0.0438	0.0	0.0011	0.0002	0.0	v • u	0.0	0 • 0	0 -0
39	0.0720	0 • 0	0.0012	0.0003 0.0003	0.0	2.0	0.0	0.0	0 -0
4 Ú	0.0710	0.0	0.0013	0.000	6.3	0.0	0.0	0 • 0 0 • 0	0.0
41	0-0680	0.0		0.000	V • U	0.0	0.0	0.0	0 • 0
42	3.0€59		(-0014	0.0(04 0.9(05 0.6(06	U • U	0.0	0.0	0.0	0 • 0
43		0.0	£.3015	0.0000	3 • 3	0.0	0.0	0.0	0 •0
	0.0±10	o.∙o	£ •0015	0.0008 0.0119	3.0	0.0	0.0	0.0	0 • 0
44	9-05-0	2.4	0.0016	0-0119	u • u	U • O	0.0	0.0	0 -0
45	0.0550	0.0	C-CC17	0.0(12 0.0(14	0 • 0	0.0	0.0	0 • 0	0.0
46	0.0520	0.0	C-CC13	0.0114	3.9	0.0	0.0	0.0	0 • 0
47	0-0490	0 • 6	0-0015	0.0014 0.0(16	0.0	0.0	0 • 0	0.0	0 • 0
4.6	0-0460	0 - 0	0.0030	0.0(16	0 • 0	0 • 0	0.0	0.0	0.0
49	0 - 8 4 4 8	0.0	0.0021	0.0(19 0.0(20	o • o	0.0	0.0	0.0	0 • C
50	0.0420	0 • 0	0.0022	0.0(20	0.0030	0 • 0	0.0	0 • 0	0.0
51	0 - 6 4 0 6	0.0	C-9C24	0.0024	0.0070	0.0	0.0	0.0	0.0
52	0 - 9 3 × 9	0.0	0.0026	0.0023	0-0120	0 • 0	0.0	0.0	0.0
1.3	0.0350	0.0	0.0020		0.0170	0 • J	0.0	0.0	0.0
£4	0.0330	e • a	C.ocs0	0.0036	0.0230	0.0	0.0	0.0	0.0
5.5	0.9310	0.0	2.0333	0.0(40	0.0500	C • O	0.0	0.0	0.0
56	0.92-0	0.0	0.0036	0.0040	0.3496	0.0	0.0 0.0	0.0	0 - 0
57	0.46276	0.0		0.0040	0.0=0C	0.0	0.0	0.0	0 •0
1 8	0.0250	0.0 0.0	C-0043 C-0347	0.0(40	0.0700	0.0	0.0	0.0	0 • 0
55	0.0230	0.0	0.0047	0.0040	0.0400	3.0	0.0	0.0	0.0
~ C	J-0320	0.0 0.0	0.0052 0.0057	C • U	0.2500	C • O	0.0	0.0	0.0
ί1	0-1/210	J. 7	5.0017	0.0	0.1200	3.40	G • O •	0.0	0.0
€2	0.0200	9 • 3	0.0045	0.0	0.1500	0.0	0_0	0.3	0.0
¿ 🕹	C - 1° C	(• · ·	0.2073	0.0	0.1300	0.0	0 • 0	0.0	0.0
£ 4	0.0070	0.6	ۥJC 1	0,. 3	0.2100	0.0	0.0	0.0	0.0
: 5	0	1 • 1/	348691	0.0	0.2506	0-3	0.0	0.0	0.0
í e	0 - €	e.n	5.010s	0.3	0-2000	0.0	0.0	0 • V	0 - 0
÷ 7	0.4	• •	7.0121	0.3	2.230				
t ·	0.1	0.0	0134	V • 3 V • 3	0.2730	∂ - 0	0.0	0 - C 0 - C	0 - 0
و ع	ε.	î•1				0.0	0 • 0		3 • 0
73	í.	0. • 0	C+1115	0 - C	0.3500 1.2000	0.0	0.0	0 • 0	0 • 0 0 • 0 ERS, PERRIN, FORSTER
, 5	. •	€ • €	€ • ©	0 • 3	1.3080	0 - 0	0.0		

APPLICABLE TO MEMBERS COVERED UNDER "BETA" FORMULA

115% NORMAL CONTRIBUTION RATES

	Normal		Normal
Age	Contribution Rate	Age	Contribution Rate
	181 5		
		40	10.19%
16	8.00%	41	10.29
17	8.04	42	10.41
18	8.08	43	10.52
19	8.14	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
25	8.58	50	11.34
26	8.66	51	11.44
27	8 .7 5	52	11.55
28	8.86	53	11.65
29	8.96	54	11.75
30	9.06	55	11.85
31	9.17	56	11.94
32	9.28	5 7	12.03
33	9.40	58	12.11
34	9.50	59	12.19
٠			
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

APPLICABLE TO MEMBERS COVERED UNDER "BETA" FORMULA

115% NORMAL CONTRIBUTION RATES

			Survivor
_	Survivor	•	
Age	Contribution Rate	Age	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

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

	Total		Total
Age	Contribution Rate	Age	Contribution Rate
<u>5-</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 .7 5	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

	** SERVICE **													
AGE ****		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. * *TOT.AMT* AVE.AMT*	31 416111 13423	16 210413 13151	1 13306 13306	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	48 639830 13330
20-24	*NO. * *TOT.AMT* AVE.AMT*	284 4108269 14466	422 6397783 15161	191 3165626 16574	24 364888 15204	28 483864 17281	8 131890 16486	0 0 0	0. 0 0	0 0 0	0 0 0	0 0 0	0 0 0	957 14652320 15311
25 - 29	*NO. * *TOT.AMT* AVE.AMT*	308 5049827 16396	513 9117682 17773	362 6906364 19078	105 2007440 19118	229 4359879 19039	486 9252155 19037	20 388402 19420	0 0 0	0 0 0	0 0 0	0 0 0	0	2023 37081749 18330
30-34	*NO. * *TOT.AMT* AVE.AMT*	212 3811758 17980	342 6482860 18956	296 6281818 21222	136 2914647 21431	241 5650219 23445	1011 22826099 22578	613 13306479 21707	8 170849 21356	0 0 0	0 0 0	0 0 0	0	2859 61444729 21492
35-39	*NO. * *TOT.AMT* AVE.AMT*	118 2193374 18588	208 4080343 19617	198 4309074 21763	75 1798412 23979	173 3993678 23085	717 18397080 25658	944 24227137 25664	263 6868047 26114	16 359632 22477	0 0 0	0 0 0	0	2712 66226777 24420
40-44	*NO. * *TOT.AMT* AVE.AMT*	77 1441525 18721	138 2627522 19040	102 2099547 20584	47 1067741 22718	96 2228324 23212	417 9929727 23812	664 16457444 24785	513 14049647 27387	160 4318329 26990	9 249433 27715	0 0 0	0 9	2223 54469239 24503
45-49	*NO. * *TOT.AMT* AVE.AMT*	41 809565 19745	75 1659600 22128	70 1455236 20789	25 608734 24349	55 1257380 22861	307 731272կ 23820	479 11159647 23298	423 11018931 26049	398 10780337 27086	174 4664270 26806	3 67009 22336	0 9	2050 50793433 24777
50-54	*NO. * *TOT.AMT* AVE.AMT*	40 744655 18616	55 1118270 20332	56 1211439 21633	21 523016 24906	51 1100308 21575	242 5571648 23023	378 8835645 23375	340 8493947 24982	476 13040287 27396	359 9576288 26675	87 2458333 28257	3 79448 26483	2108 52753284 25025
55 - 59	*NO. * *TOT.AMT* AVE.AMT*	29 685370 23633	34 626705 18433	39 879949 22563	23 445409 19366	55 1227020 22309	225 5325494 23669	350 8538740 24396	289 7324487 25344	334 8249594 24699	333 9090383 27298	290 8894251 30670	46 1409333 30638	2047 52696735 25743
60 - 64	*NO. * *TOT.AMT* AVE.AMT*	7 148387 21198	21 502702 23938	29 768701 26507	8 238593 29824	39 938672 24069	147 3438446 23391	249 5741806 23059	190 4618400 24307	172 4129848 24011	171 4462157 26094	141 4149780 29431	46 1559460 33901	1220 30696952 25161
65-	*NO. * *TOT.AMT* AVE.AMT*	4 107521 26880	7 109908 15701	130508 32627	83193 16639	7 216544 30935	64 1589874 24842	94 2189548 23293	85 2153755 25338	60 1432121 23869	34 801841 23584	33 961472 29136	17 491795 28929	414 10268080 24802
TOTAL		1151 19516362 16956	1831 32933788 17987	1348 27221568 20194	469 10052073 21433	974 21455888 22029	3624 83775137 23117	3791 90844848 23963	2111 54698063 25911	1616 42310148 26182	1080 28844372 26708	554 16530845 29839	112 35400364 31607	18661 31723128 23135

AVERAGE AGE # 42.2 # AVERAGE SERVICE # 10.8 #

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

DISTRIBUTION OF PENSIONERS BY YEAR OF RETIREMENT AND BY ATTAINED AGE AS OF 6/82

TOTAL OF ALL MEMBERS

** YEAR OF RETIREMENT **

ATTAINE	D PRE										, c o					•							AVG
ATTATRE AGE	'62	¹62 ***	'63 ***	'64 ***	'65 ***	166 ***	¹67 ***	¹68 ***	'69 ***	†70 ***	'71 ***	¹ 72 ***	¹73 ***	¹74 ***	¹75 ***	¹76 ***	'77 ***	¹78 ***	'79 ***	'80 ***	***	TOTAL	AMT
0- 29	25 4	0	0	. 0	0	- 1	- 0	0	0	0	0	0	0	0	0	0	0	0	2	3	1	11	4071
30- 34	0	0	0	0	0	0	0	0	0	0	0	1	1	0	. 0	1	0	4	9	6	2	24	5918
35 - 39	0	0	0	0	0	0	0	0	0	0	0	0	0	3	7	5	2	10	4	13	2	46	5927
40- 44	0	0	0	0	0	0	1	0	1	2	3	4	3	4	6	4	11	14	16	6	4	79	5261
45- 49	0	0	0	0	0	0	2	0	1	2	6	3	5	2	9	14	6	10	20	10	4	94	5589
50- 54	0	1	0	D	1	1	2	0	0	1	8	9	5	7	13	17	19	20	13	20	14	151	6035
55- 59	3	0	2	1	1	4	5	6	3	5	16	9	17	23	22	30	48	123	117	120	129	684	9468
60- 64	8	1	4	3	0	8	12	9	10	12	15	33	33	56	89	124	182	238	197	208	198	1440	10415
65- 69	61	14	21	6	29	18	33	35	56	47	69	70	112	104	184	213	177	192	161	128	117	1847	8819
70- 74	35	10	30	16	38	37	65	58	59	63	80	97	148	113	136	126	101	68	45	33	34	1392	7406
75- 79	119	34	53	36	61	71	69	71	54	49	67	78	102	46	56	30	7	4	2	1	1	1011	6504
80- 84	149	34	52	27	60	35	42	56	21	21	29	12	3	0	0	1	0	1	0	1	0	544	6350
85- 89	211	28	30	31	41	19	17	3	2	1	1	1	1	0	0	0	0	0	0	0	0	386	5047
90- 94	87	4	3	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	96	4573
95- 99	12	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	14	3771
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	689	126	195	121	232	194	249	238	207	203	294	318	430	358	522	565	553	684	586	549	506	7819	
AVG AMT	4141	5320	4873	4501	5974	5471	5493	5859	5663	5805	6214	6330	8201	7881	9080	9985	9621	99181	02251	01751	1905		

[#] AVG AMT # 8039

^{*} TOT.PEN. 62853040 *

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 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 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 if he had 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.

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 had 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 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 <u>elect</u> 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).