

REPORT ON
ACTUARIAL INVESTIGATION AND VALUATION OF THE
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
JUNE 30, 1986

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December 19, 1986

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

Members of the Board:

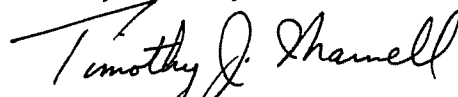
We are pleased to enclose our report setting forth the results of the investigation and valuation of your Retirement System as of June 30, 1986.

The valuation is 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



Timothy J. Marnell, M.A.A.A., A.S.A.
Consultant

TJM/gmr
Enclosure

REPORT ON
ACTUARIAL INVESTIGATION AND VALUATION OF THE
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
JUNE 30, 1986
TABLE OF CONTENTS

	<u>PAGE</u>
<u>SECTION I - INTRODUCTION</u>	1
<u>SECTION II - SUMMARY OF ACTUARIAL INVESTIGATION</u>	3
<u>SECTION III - MEMBER CONTRIBUTIONS</u>	7
<u>SECTION IV - RESULTS OF THE ACTUARIAL VALUATION</u>	9
Introduction	9
Funding Method	9
Accounting Balance Sheet	10
Actuarial Balance Sheet	13
<u>SECTION V - RECOMMENDED CITY CONTRIBUTIONS</u>	17
<u>SECTION VI - MEASURES OF FUNDING PROGRESS</u>	20
Unfunded Actuarial Accrued Liability (UAAL)	20
Traditional Funding Ratio	20
Vested Liability	22
Financial Accounting Standards Board Accrued Liability	22
Quick Liability	23
<u>SECTION VII - STATISTICAL INFORMATION</u>	25

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, 1983 through June 30, 1986. 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, 1986.

The Retirement Office furnished us with magnetic tapes containing detailed employee information on all active members of the System as of June 30, 1986 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, 1986 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, 1986.

Los Angeles City Employees'
Retirement System

SUMMARY OF MEMBERSHIP OF SYSTEM
AS OF JUNE 30, 1986

ACTIVE MEMBERS

			<u>Average</u>	
	<u>Number</u>	<u>Annual Salary</u>	<u>Age</u>	<u>Monthly Salary</u>
Total 6-30-85	19,205	\$530,387,132	41.7	\$2,301
Total 6-30-86	20,075	621,871,710	41.5	2,581
Percent Increase	+4.5%	+17.2%	--	+12.2%

PENSIONERS

	<u>Number</u>	<u>Annual Allowance</u>	<u>Average Monthly Allowance</u>
Total 6-30-85	9,201	\$ 96,343,936	\$ 873
Total 6-30-86	9,431	104,525,760	924
Percent Increase	+2.5%	+8.5%	+5.8%

The Retirement Office also furnished us with an accounting balance sheet setting forth the assets and liabilities of the System as of June 30, 1986. 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, 1986. 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.

Los Angeles City Employees'
Retirement System

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 RETIREMENT

Our analysis of the information provided to us concerning deaths after retirement indicates that information was provided for the 12-month period ending June 30, 1986 instead of for a full 36 months. In view of the available data, we recommend that the Board continue using the current assumptions as summarized below:

Los Angeles City Employees'
Retirement System

Mortality After Service Retirement

1971 Group Annuity Mortality Table with male ages set back two years and female ages set back eight years.

Mortality After Disability Retirement

1981 Disability Table for Safety and Miscellaneous (non-Safety) Members without age set backs.

C. 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 decreased the male and female withdrawal assumptions as well as the male preretirement death and the female service 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, 1983, 1984, and 1985 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.

Los Angeles City Employees'
Retirement System

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

	<u>Actual Separations</u>	<u>"Old" Expected Separations</u>	<u>"New" Expected Separations</u>
<u>WITHDRAWAL</u>			
Male Members	1,989	2,803	2,326
Female Members	1,383	1,982	1,645
<u>DEATHS*</u>			
Male Members	114	156	132
Female Members	21	29	29
<u>DISABILITY RETIREMENT</u>			
Male Members	35	63	63
Female Members	16	13	13
<u>SERVICE RETIREMENT</u>			
Male Members	1,248	1,181	1,181
Female Members	198	246	220

* 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 code 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 68.82% of the amount of contribution assumed by the City.

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

<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

Los Angeles City Employees'
Retirement System

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

Effective July 1, 1986, the Family Death Benefit Plan monthly contribution of \$5.14 has been reduced to \$4.50 per participating member, which should be continued 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, 1986. 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 VII. The "Beta" formula was applied to all active members.

Funding Method

The primary funding method of the Los Angeles City Employees' 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

Los Angeles City Employees'
Retirement System

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 the Family Death Benefit Plan, 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, 1986 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, 1986 was determined as follows:

1. Total assets	\$1,665,363,347
2. Less reserves and liabilities established for the following:	
a. family death benefit insurance	\$ 11,645,957
b. 20% of undistributed earnings	2,128,657
c. total	<u>\$ 13,774,614</u>
3. Net applicable assets as of June 30, 1986 (item 1 less item 2(c))	\$1,651,588,733

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
STATEMENT OF RESERVE AND FUND BALANCE ACCOUNTS

<u>ACTUARIAL</u>	JUNE 30	
	<u>1986</u>	<u>1985</u>
Member Contributions	\$ 301,862,160	\$ 279,399,695
Annuities	214,631,356	196,900,312
Subsequent Service	793,002,332	640,577,829
Cost of Living	307,218,304	268,644,400
Family Death Benefit Insurance	<u>11,645,957-</u>	<u>10,728,741 -</u>
Total Actuarial	1,628,360,109	1,396,250,977
 <u>OTHER</u>		
Undistributed Earnings	10,643,284 -	9,879,800 -
Gain/Loss on Equities	26,359,954 -	20,505,947 -
Fund Balance	<u>-0-</u>	<u>-0-</u>
Total Other	<u>37,003,238</u>	<u>30,385,747</u>
Total Reserves & Fund Balance	<u>\$1,665,363,347</u>	<u>\$1,426,636,724</u>

CITY OF LOS ANGELES
CITY EMPLOYEES' RETIREMENT SYSTEM

BALANCE SHEETS

JUNE 30

<u>ASSETS</u>	<u>1986</u>	<u>1985</u>
CASH	\$ 2,101,786	\$ 821,284
RECEIVABLES:		
Accrued interest and dividend income	\$ 26,934,391	\$ 25,421,096
Other receivables	3,527,646	2,975,071
Proceeds from sale of investments	10,969,617	6,788,144
	41,431,654	35,184,311
INVESTMENTS		
Temporary	\$133,970,916	\$150,401,857
Bonds	976,369,075	843,158,174
Common Stocks	527,199,074	410,118,934
	1,637,539,065	1,403,678,965
Total Assets	1,681,072,505	\$1,439,684,560

LIABILITIES

ACCOUNTS PAYABLE AND ACCRUED EXPENSES	(15,709,158)	(13,047,836)
NET ASSETS AVAILABLE FOR PLAN BENEFITS	<u>\$1,665,363,347</u>	<u>\$1,426,636,724</u>

FUND BALANCE

MEMBERS' CONTRIBUTIONS	301,862,160	279,399,695
RESERVE FOR RETIREMENT ALLOWANCE FOR RETIRED MEMBERS AT ACTUARIAL VALUATION		
CITY CONTRIBUTIONS AVAILABLE FOR FUTURE RETIREES (CITY CONTRIBUTIONS REQUIRED TO FUND DEFICIENCY)		
Total Fund Balance	<u>\$1,665,363,347</u>	<u>\$1,426,636,724</u>

Los Angeles City Employees'
Retirement System

Actuarial Balance Sheet

This actuarial valuation of the Retirement System as of June 30, 1986 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, 1986

ASSETS

1. Total Applicable Assets			\$1,651,588,733
2. Present Value of Future Contributions of Members			481,467,500
3. Present Value of Future Contributions by the City on Account of:			
a. Basic Pensions:			
i. Normal Cost		\$291,573,656	
ii. Amortization of Certain Liabilities:			
- Prior Service Pensions	\$ 6,624,638		
- Increase due to 1965 Amendments	2,009,226		
- Remaining Unfunded Actuarial Accrued Liability	<u>353,002,353</u>	361,636,217	
b. Cost-of-Living Pensions:			
i. Normal Cost		152,596,144	
ii. Amortization of Certain Liabilities:			
- Increase due to 1967 Amendments	12,825,485		
- Remaining Unfunded Actuarial Accrued Liability	<u>362,023,263</u>	<u>374,848,748</u>	<u>1,180,654,765</u>
4. Total Assets			<u>3,313,710,998</u>

Los Angeles City Employees'
Retirement System

ACTUARIAL BALANCE SHEET

AS OF JUNE 30, 1986

LIABILITIES

5. Present Value of Benefits Already Granted:		
a. Basic	\$ 825,047,086	
b. Cost-of-Living	<u>475,739,412</u>	\$1,300,786,498
6. Present Value of Benefits to Be Granted:		
a. Basic	\$1,566,214,500	
b. Cost-of-Living	<u>446,710,000</u>	<u>2,012,924,500</u>
7. Total Liabilities		\$3,313,710,998

Los Angeles City Employees'
Retirement System

TPF&C prepared the actuarial balance sheet in a condensed format using terminology that 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 the Family Death Benefit Plan 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

On the basis of the actuarial valuation of the Retirement System as of June 30, 1986, we respectfully submit the following recommendations in accordance with the provisions of Article XXXIV of the City Charter and related ordinances.

Using the Projected Unit Credit Cost funding method and assuming that all members will contribute on the basis of the full rates shown in Section III, we recommend that City contributions for fiscal year 1987-1988 be as follows:

	<u>Recommended City Contributions For 1987-1988</u>	
	<u>Percentage of Salary</u>	<u>Fixed-Dollar Amount</u>
a. For Basic Pensions:		
i. Normal Cost	3.63%	---
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 Actuarial Accrued Liability	<u>3.83%</u>	<u>---</u>
v. Total Basic Pensions	7.46%	\$ 1,534,582

Los Angeles City Employees'
Retirement System

Recommended City Contributions
For 1987-1988

	Percentage of Salary	plus	Fixed-Dollar Amount
b. For Cost-of-Living Pensions:			
i. Normal Cost	<u>3.63</u> 1.90%		---
ii. Increase due to 1967 Amendment (Charter-Period ending June 30, 1997)	---		\$ 1,796,547
iii. Unfunded Actuarial Accrued Liability (Period ending June 30, 2004)	<u>3.83</u> 3.93%		---
iv. Total Cost-of-Living Pensions	5.83%		\$ 1,796,547
c. Contribution rate for prefunding Health Care Subsidiary (Members eligible to retire only)	0.73%		---
d. Total Basic and Cost-of-Living Pensions and Health Care	14.02%		\$ 3,331,129
e. For the Family Death Benefit Plan:			
\$4.50 per month for each participating member in the Family Death Benefit Insurance Plan until modified by subsequent valuation.			

An ordinance that became effective in October 1975 permits the City to "subsidize" a portion of employee contributions. Because 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. On the basis of the actuarial valuation as of June 30, 1986, we recommend the City contribute 68.82% of subsidized employee contributions to the System, i.e., for each \$10,000 the City assumes, it should contribute \$6,882. 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.

Los Angeles City Employees'
Retirement System

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	5.53%	5.33%	1.04
Amortization of UAAL	7.76%	8.79%	0.88
Health Care Subsidy	0.73%	-	N.A.
Total	14.02%	14.12%	0.99

The main reason for the change in the City's contribution percentage in approximate order of impact are: 1) investment earnings in excess of expected; 2) the change in the withdrawal, mortality and retirement assumptions; and 3) the inclusion of prefunding the health care subsidiary.

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 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 Employees' 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 \$744,737,026. This year the UAAL decreased to \$736,484,965.

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 that 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. This method has been specified by the Governmental Accounting Standards Board Statement No. 5 (November, 1986) as the appropriate method for disclosure. We have shown figures for the current and previous valuations to acquaint you with the funding progress.

Los Angeles City Employees'
Retirement System

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>June 30, 1986</u>	<u>June 30, 1985</u>
1. Present Value of Benefits Earned to Valuation Date		
(a) Basic Benefits	\$1,664,989,286	\$1,498,067,905
(b) Cost-of-Living Benefits	<u>723,084,412</u>	<u>640,095,197</u>
(c) Total	2,388,073,698	2,138,163,102
2. Applicable Assets on Hand		
(a) Basic Benefits	1,303,353,069	1,092,001,096
(b) Cost-of-Living Benefits	<u>348,235,664</u>	<u>301,424,980</u>
(c) Total	\$1,651,588,733	\$1,393,426,076
3. Funding Ratio		
(a) Basic Benefits	78.3%	72.9%
(b) Cost-of-Living Benefits	48.2%	47.1%
(c) Total	69.2%	65.2%

The increase in funding ratios is primarily a result of a greater than expected investment yield offset somewhat by changes in the actuarial assumptions.

Los Angeles City Employees'
Retirement System

Vested Liability

We estimate that the liability for vested benefits as of June 30, 1986 amounts to \$2,368,393,800. At the request of the Board of Administration's Auditor, this calculation was done on the basis of projected salaries as described under "funding ratio." Applicable assets on hand amount to \$1,651,588,733. Thus, as of June 30, 1986, there was an excess of vested liability over applicable assets on hand amounting to \$716,805,067. Note that applicable assets on hand amount to 69.7% of the vested liability. The corresponding figure for June 30, 1985 was 65.7%. The reasons for the increase in the percentage are identical to that for the increase in the traditional funding ratio.

Financial Accounting Standards Board Accrued Liability

Another measure of funding progress was introduced by the Financial Accounting Standards Board (FASB) in its Opinion No. 35. The FASB 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

Los Angeles City Employees'
Retirement System

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

	<u>June 30, 1986</u>	<u>June 30, 1985</u>
(1) Present Value of Accrued Benefits	\$2,059,851,898	\$1,867,839,502
(2) Assets	1,651,588,733	1,393,426,076
(3) Percent Funded (2)/(1)	80.2%	74.6%

The reasons for the increase are again as stated for the increase in the traditional funding ratio.

Quick Liability

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

	<u>June 30, 1986</u>	<u>June 30, 1985</u>
(1) Liability for Retired and Vested Terminations	\$1,300,786,498	\$1,201,248,402
(2) Accumulated Active Member Deposits with Interest	294,522,400	283,832,000
(3) Total (1)+(2)	1,595,308,898	1,485,080,402
(4) Assets	1,651,588,733	1,393,426,076
(5) Percent Funded (4)/(3)	103.5%	93.8%

Los Angeles City Employees'
Retirement System

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 with 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 budgetary obligations both next year and in the future, 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)
- Schedule 3: 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

Los Angeles City Employees'
Retirement System

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 titled "Probability of Occurrence."
7. Probabilities of Mortality after Retirement: As shown in table that follows (Schedule 1).
8. Probabilities of Mortality after Disability: As shown in table that follows (Schedule 2).
9. Cost-of-Living Increases: 3.0% per annum, compounded annually.

Los Angeles City Employees'
Retirement System

10. Health Benefits Liability: A liability for retired members is determined by computing the present value of health insurance premiums, assuming they will be paid during the future lifetime of each member. An additional liability is also determined for those active participants eligible to retire as of the valuation date.

SCHEDULE 1
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	15.00	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)

<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

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

SCHEDULE 1
(continued)

EXPECTATION OF LIFE

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

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

<u>Age</u>	<u>General</u>	<u>Safety</u>	<u>Age</u>	<u>General</u>	<u>Safety</u>
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	.0472
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	.0038	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	.0170	.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

SCHEDULE 3

PROBABILITY OF TERMINATION OF EMPLOYMENT

The following pages indicate the probability of termination of employment for each of nine separate sources of termination:

- Ordinary withdrawal: member terminates and elects refund of member contributions.
- Vested withdrawal: member terminates and contributions are left on deposit.
- Ordinary death: member dies prior to eligibility for retirement; death not employment-related.
- Ordinary disability: member receives disability retirement where the member's disability is not employment-related.
- Service retirement: member retires after satisfaction of requirements of age and/or service for reasons other than disability.
- Service disability: member receives disability retirement as the result of employment-related disability.
- Service death: member dies prior to retirement as the result of performance of assigned duties.
- DWE - Service Retirement: member dies prior to retirement but after satisfaction of age and/or service requirements for service retirement.
- DWE - Disability Retirement: member dies prior to retirement but after satisfaction of age and/or service requirements for disability retirement.

The probabilities shown for each cause of termination represent the probability that a given member will terminate at a particular age for the indicated reason. For example, if the probability of ordinary withdrawal at age 25 is .1000, then we are assuming that 10% of the active members at age 25 will terminate without vested rights during the next year.

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

AGE NEAREST	ORDINARY WITHDRAW	VESTED WITHDRAW	ORDINARY DEATH	ORDINARY DISABILITY	SERVICE RETIRE	SERVICE DISABILITY	SERVICE DEATH	DWE SVC RET	DWE DIS RET
18	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	0.2700	0.0000	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	0.2520	0.0000	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	0.2340	0.0000	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	0.2160	0.0000	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	0.1980	0.0000	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25	0.1800	0.0000	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
26	0.1680	0.0000	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
27	0.1560	0.0000	0.0006	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
28	0.1440	0.0000	0.0006	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000
29	0.1320	0.0000	0.0007	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000
30	0.1200	0.0000	0.0007	0.0006	0.0000	0.0000	0.0000	0.0000	0.0000
31	0.1110	0.0000	0.0008	0.0008	0.0000	0.0000	0.0000	0.0000	0.0000
32	0.1020	0.0000	0.0009	0.0009	0.0000	0.0000	0.0000	0.0000	0.0000
33	0.0930	0.0000	0.0009	0.0010	0.0000	0.0000	0.0000	0.0000	0.0000
34	0.0840	0.0000	0.0010	0.0011	0.0000	0.0000	0.0000	0.0000	0.0000
35	0.0750	0.0000	0.0010	0.0013	0.0000	0.0000	0.0000	0.0000	0.0000
36	0.0700	0.0000	0.0011	0.0014	0.0000	0.0000	0.0000	0.0000	0.0000
37	0.0650	0.0000	0.0012	0.0015	0.0000	0.0000	0.0000	0.0000	0.0000
38	0.0600	0.0000	0.0013	0.0016	0.0000	0.0000	0.0000	0.0000	0.0000
39	0.0550	0.0000	0.0014	0.0017	0.0000	0.0000	0.0000	0.0000	0.0000
40	0.0500	0.0000	0.0015	0.0018	0.0000	0.0000	0.0000	0.0000	0.0000
41	0.0480	0.0000	0.0017	0.0018	0.0000	0.0000	0.0000	0.0000	0.0000
42	0.0450	0.0000	0.0018	0.0019	0.0000	0.0000	0.0000	0.0000	0.0000
43	0.0430	0.0000	0.0018	0.0019	0.0000	0.0000	0.0000	0.0000	0.0000
44	0.0400	0.0000	0.0020	0.0020	0.0000	0.0000	0.0000	0.0000	0.0000
45	0.0380	0.0000	0.0023	0.0020	0.0000	0.0000	0.0000	0.0000	0.0000
46	0.0360	0.0000	0.0024	0.0021	0.0000	0.0000	0.0000	0.0000	0.0000
47	0.0340	0.0000	0.0026	0.0021	0.0000	0.0000	0.0000	0.0000	0.0000
48	0.0320	0.0000	0.0027	0.0022	0.0000	0.0000	0.0000	0.0000	0.0000
49	0.0300	0.0000	0.0030	0.0022	0.0000	0.0000	0.0000	0.0000	0.0000
50	0.0280	0.0000	0.0034	0.0023	0.0020	0.0000	0.0000	0.0000	0.0000
51	0.0270	0.0000	0.0038	0.0023	0.0030	0.0000	0.0000	0.0000	0.0000
52	0.0250	0.0000	0.0040	0.0023	0.0040	0.0000	0.0000	0.0000	0.0000
53	0.0240	0.0000	0.0045	0.0023	0.0055	0.0000	0.0000	0.0000	0.0000
54	0.0220	0.0000	0.0050	0.0023	0.0235	0.0000	0.0000	0.0000	0.0000
55	0.0210	0.0000	0.0034	0.0024	0.0945	0.0000	0.0000	0.0026	0.0000
56	0.0190	0.0000	0.0037	0.0024	0.0675	0.0000	0.0000	0.0030	0.0000
57	0.0170	0.0000	0.0040	0.0024	0.0785	0.0000	0.0000	0.0032	0.0000
58	0.0160	0.0000	0.0045	0.0024	0.0900	0.0000	0.0000	0.0036	0.0000
59	0.0140	0.0000	0.0050	0.0024	0.1000	0.0000	0.0000	0.0040	0.0000
60	0.0120	0.0000	0.0055	0.0024	0.1935	0.0000	0.0000	0.0044	0.0000
61	0.0100	0.0000	0.0062	0.0024	0.1400	0.0000	0.0000	0.0049	0.0000
62	0.0080	0.0000	0.0069	0.0025	0.1500	0.0000	0.0000	0.0054	0.0000
63	0.0060	0.0000	0.0076	0.0025	0.1680	0.0000	0.0000	0.0060	0.0000
64	0.0030	0.0000	0.0084	0.0025	0.2125	0.0000	0.0000	0.0066	0.0000
65	0.0000	0.0000	0.0092	0.0000	0.3500	0.0000	0.0000	0.0074	0.0000
66	0.0000	0.0000	0.0102	0.0000	0.2240	0.0000	0.0000	0.0081	0.0000
67	0.0000	0.0000	0.0112	0.0000	0.2240	0.0000	0.0000	0.0090	0.0000
68	0.0000	0.0000	0.0123	0.0000	0.2240	0.0000	0.0000	0.0097	0.0000
69	0.0000	0.0000	0.0133	0.0000	0.2500	0.0000	0.0000	0.0107	0.0000
70	0.0000	0.0000	0.0000	0.0000	1.0000	0.0000	0.0000	0.0000	0.0000

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

AGE NEAREST	ORDINARY WITHDRAW	VESTED WITHDRAW	ORDINARY DEATH	ORDINARY DISABLTY	SERVICE RETIRE	SERVICE DISABLTY	SERVICE DEATH	DWE SVC RET	DWE DIS RET
18	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	0.1800	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	0.1740	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	0.1680	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	0.1620	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	0.1560	0.0000	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25	0.1500	0.0000	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
26	0.1440	0.0000	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
27	0.1380	0.0000	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
28	0.1320	0.0000	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
29	0.1260	0.0000	0.0006	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
30	0.1200	0.0000	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
31	0.1140	0.0000	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
32	0.1080	0.0000	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
33	0.1020	0.0000	0.0008	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
34	0.0960	0.0000	0.0009	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
35	0.0900	0.0000	0.0009	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
36	0.0840	0.0000	0.0010	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
37	0.0780	0.0000	0.0010	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
38	0.0720	0.0000	0.0011	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
39	0.0660	0.0000	0.0012	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
40	0.0600	0.0000	0.0013	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000
41	0.0580	0.0000	0.0014	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000
42	0.0560	0.0000	0.0015	0.0006	0.0000	0.0000	0.0000	0.0000	0.0000
43	0.0540	0.0000	0.0015	0.0008	0.0000	0.0000	0.0000	0.0000	0.0000
44	0.0520	0.0000	0.0016	0.0010	0.0000	0.0000	0.0000	0.0000	0.0000
45	0.0500	0.0000	0.0017	0.0012	0.0000	0.0000	0.0000	0.0000	0.0000
46	0.0480	0.0000	0.0018	0.0014	0.0000	0.0000	0.0000	0.0000	0.0000
47	0.0460	0.0000	0.0019	0.0014	0.0000	0.0000	0.0000	0.0000	0.0000
48	0.0440	0.0000	0.0020	0.0016	0.0000	0.0000	0.0000	0.0000	0.0000
49	0.0420	0.0000	0.0021	0.0018	0.0000	0.0000	0.0000	0.0000	0.0000
50	0.0400	0.0000	0.0022	0.0020	0.0010	0.0000	0.0000	0.0000	0.0000
51	0.0380	0.0000	0.0024	0.0024	0.0022	0.0000	0.0000	0.0000	0.0000
52	0.0360	0.0000	0.0026	0.0028	0.0040	0.0000	0.0000	0.0000	0.0000
53	0.0340	0.0000	0.0028	0.0032	0.0067	0.0000	0.0000	0.0000	0.0000
54	0.0320	0.0000	0.0030	0.0036	0.0134	0.0000	0.0000	0.0000	0.0000
55	0.0300	0.0000	0.0033	0.0040	0.0635	0.0000	0.0000	0.0000	0.0000
56	0.0280	0.0000	0.0036	0.0040	0.0286	0.0000	0.0000	0.0000	0.0000
57	0.0260	0.0000	0.0039	0.0040	0.0313	0.0000	0.0000	0.0000	0.0000
58	0.0240	0.0000	0.0043	0.0040	0.0358	0.0000	0.0000	0.0000	0.0000
59	0.0220	0.0000	0.0047	0.0040	0.0581	0.0000	0.0000	0.0000	0.0000
60	0.0200	0.0000	0.0052	0.0000	0.1654	0.0000	0.0000	0.0000	0.0000
61	0.0160	0.0000	0.0057	0.0000	0.0984	0.0000	0.0000	0.0000	0.0000
62	0.0120	0.0000	0.0065	0.0000	0.1118	0.0000	0.0000	0.0000	0.0000
63	0.0080	0.0000	0.0073	0.0000	0.1207	0.0000	0.0000	0.0000	0.0000
64	0.0040	0.0000	0.0081	0.0000	0.1341	0.0000	0.0000	0.0000	0.0000
65	0.0000	0.0000	0.0091	0.0000	0.2240	0.0000	0.0000	0.0000	0.0000
66	0.0000	0.0000	0.0105	0.0000	0.1520	0.0000	0.0000	0.0000	0.0000
67	0.0000	0.0000	0.0121	0.0000	0.1650	0.0000	0.0000	0.0000	0.0000
68	0.0000	0.0000	0.0139	0.0000	0.1920	0.0000	0.0000	0.0000	0.0000
69	0.0000	0.0000	0.0159	0.0000	0.2500	0.0000	0.0000	0.0000	0.0000
70	0.0000	0.0000	0.0000	0.0000	1.0000	0.0000	0.0000	0.0000	0.0000

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
25	8.58	50	11.34
26	8.66	51	11.44
27	8.75	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	57	12.03
33	9.40	58	12.13
34	9.50	59	12.19
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% NORMAL 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
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

<u>Age</u>	<u>Total Contribution Rate</u>		<u>Age</u>	<u>Total 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	<i>4.32 - 2 = 2.3</i>	45	11.73
21	8.75		46	11.87
22	8.87	<i>4.43 - 2% = 2.43</i>	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 **												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. * 44	3	0	0	0	0	0	0	0	0	0	0	0	47
	TOT. AMT 679454	55935	0	0	0	0	0	0	0	0	0	0	0	735389
	AVE. AMT* 15442	18645	0	0	0	0	0	0	0	0	0	0	0	15647
20-24	*NO. * 429	311	135	40	38	52	0	0	0	0	0	0	0	1005
	TOT. AMT 8001088	6084518	2799799	928612	918710	1211041	0	0	0	0	0	0	0	19943768
	AVE. AMT* 18651	19564	20739	23215	24177	23289	0	0	0	0	0	0	0	19845
25-29	*NO. * 675	506	357	170	147	564	4	0	0	0	0	0	0	2423
	TOT. AMT 14880453	12054496	8896880	4314209	3740246	13937723	100484	0	0	0	0	0	0	57924491
	AVE. AMT* 22045	23823	24921	25378	25444	24712	25121	0	0	0	0	0	0	23906
30-34	*NO. * 525	401	290	169	155	919	449	19	0	0	0	0	0	2927
	TOT. AMT 12638282	10311724	7719787	4710850	4297588	26147764	12194853	522606	0	0	0	0	0	78543454
	AVE. AMT* 24073	25715	26620	27875	27726	28452	27160	27506	0	0	0	0	0	26834
35-39	*NO. * 346	280	205	115	106	778	963	442	8	0	0	0	0	3243
	TOT. AMT 8510900	7312397	5457234	3165713	3019995	23940152	29886504	13886107	236715	0	0	0	0	95415717
	AVE. AMT* 24598	26116	26621	27528	28491	30771	31035	31417	29589	0	0	0	0	29422
40-44	*NO. * 212	157	136	67	56	519	615	797	224	8	0	0	0	2791
	TOT. AMT 5401587	4316602	3868556	2029893	1503252	16724298	20468284	28172064	8095186	259302	0	0	0	90839024
	AVE. AMT* 25479	27494	28445	30297	26844	32224	33282	35348	36139	32413	0	0	0	32547
45-49	*NO. * 134	115	79	46	31	300	374	589	414	157	9	0	0	2248
	TOT. AMT 3377269	3119152	2099097	1382115	829798	9055650	11778605	19185036	15139581	5666428	277975	0	0	71910706
	AVE. AMT* 25204	27123	26571	30046	26768	30186	31494	32572	36569	36092	30886	0	0	31989
50-54	*NO. * 69	54	37	30	34	217	298	428	347	425	114	2	0	2055
	TOT. AMT 1892885	1457834	1068762	880612	993701	6541207	9324843	13126218	11859898	15254239	3945473	83236	0	66428908
	AVE. AMT* 27433	26997	28885	29354	29227	30144	31291	30669	34178	35892	34609	41618	0	32325
55-59	*NO. * 58	45	41	15	23	192	221	303	253	370	168	25	0	1714
	TOT. AMT 1520953	1256560	1080836	407608	609884	5739087	6516023	9349938	8693290	12993224	5963426	931531	0	55062360
	AVE. AMT* 26223	27924	26362	27174	26517	29891	29484	30858	34361	35117	35497	37261	0	32125
60-64	*NO. * 24	26	18	18	12	129	172	229	185	151	91	50	0	1105
	TOT. AMT 554976	660745	502053	523415	377881	3752419	5116444	7077864	5958488	4759151	3388683	2250639	0	34922758
	AVE. AMT* 23124	25413	27892	29079	31490	29089	29747	30908	32208	31518	37238	45013	0	31604
65-	*NO. * 9	9	3	8	4	80	88	126	68	51	35	36	0	517
	TOT. AMT 146867	171707	49553	238420	114002	2566556	2637427	3783057	2352779	1581360	1136607	1553445	0	16331780
	AVE. AMT* 16319	19079	16518	29803	28501	32082	29971	30024	34600	31007	32474	43151	0	31590
TOTAL	*NO. * 2525	1907	1301	678	606	3750	3184	2933	1499	1162	417	113	0	20075
	TOT. AMT 57604714	46801670	33542557	18581447	164050571	109615897	98023467	95102890	52335937	40513704	14712164	48188515880	0	583355
	AVE. AMT* 22814	24542	25782	27406	27071	29231	30786	32425	34914	34865	35281	42645	0	29293

AVERAGE AGE * 41.5 * AVERAGE SERVICE * 10.1 *

-38-

DISTRIBUTION OF PENSIONERS BY YEAR OF RETIREMENT AND BY ATTAINED AGE AS OF 6/86

TOTAL OF ALL MEMBERS

ATTAINED AGE *****	PRE '66 ***	** YEAR OF RETIREMENT **																				TOTAL *****	AVG AMT *****	
		'66	'67	'68	'69	'70	'71	'72	'73	'74	'75	'76	'77	'78	'79	'80	'81	'82	'83	'84	'85			
0- 29	3	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	0	2	10	3097	
30- 34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	4	3	4	1	1	2	18	8109	
35- 39	0	0	0	0	0	0	0	1	1	0	0	2	0	5	8	11	6	6	7	4	4	55	7141	
40- 44	0	0	1	1	0	0	0	2	0	3	9	5	4	10	6	11	7	8	9	4	5	85	7355	
45- 49	0	0	0	0	1	2	3	2	6	4	7	7	10	17	20	7	10	5	9	6	2	118	6897	
50- 54	0	0	2	0	1	2	6	2	4	2	8	11	7	10	16	16	17	10	15	14	7	150	7345	
55- 59	4	1	3	1	1	4	9	9	7	11	14	20	27	29	26	36	61	100	136	163	122	784	13574	
60- 64	11	6	3	6	5	5	17	12	17	26	31	43	79	159	125	141	154	286	230	180	138	1674	14683	
65- 69	92	17	19	18	25	22	25	51	49	80	114	155	193	227	206	192	195	174	165	138	80	2237	12163	
70- 74	42	12	37	30	44	37	68	63	119	97	172	190	161	164	125	100	103	61	40	52	17	1734	10830	
75- 79	151	50	63	62	56	58	78	98	124	80	103	101	54	45	32	24	22	15	6	1	4	1227	8572	
80- 84	308	57	54	64	40	45	55	53	71	29	38	10	1	1	0	2	0	0	1	0	0	829	7667	
85- 89	206	19	24	34	5	11	9	3	3	0	1	0	1	0	0	0	0	0	0	0	0	316	7117	
90- 94	154	6	3	0	2	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	168	5508	
95- 99	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	6120	
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	997	169	209	216	180	186	271	297	402	332	497	544	537	667	568	545	578	670	620	563	383	9431		
AVG AMT	5613	6204	6412	6874	6255	6853	7128	7580	9618	9313	10755	11885	11286	11887	12169	11604	12885	15982	15455	15435	15843			

* AVG AMT * 11083

* TOT. PEN. 104525760 *

-39-

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

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.

Los Angeles City Employees'
Retirement System

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.

Los Angeles City Employees'
Retirement System

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 half of the ¹ 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.

12 mo x 1/2 of avg. salary

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

Los Angeles City Employees'
Retirement System

- 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 that 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.

Los Angeles City Employees'
Retirement System

8. Postretirement Cost-of-Living Benefits

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

Los Angeles City Employees'
Retirement System

B. Benefits

Benefits similar to those provided by Survivors' Insurance under Social Security are 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).

11. Retired Health Insurance Subsidy

A. Eligibility

Retirement after age 55 with 10 or more years of service or mandatory retirement at age 70.

B. Benefits

Up to a maximum of \$253 per month for the Health Subsidy, respectively. The benefits are vested at 40% after 10 years, increasing by 4% per year to 100% after 25 years of service.