

REPORT ON  
ACTUARIAL VALUATION

OF THE  
CITY EMPLOYEES' RETIREMENT SYSTEM

OF THE  
CITY OF LOS ANGELES

AS OF  
JUNE 30, 1972

COATES AND CRAWFORD  
Consulting Actuaries

January 31, 1973

*Average Member  
Contribution Rate  
5.52%*

COATES AND CRAWFORD

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ROBERT H. LITTLE

January 31, 1973

Board of Administration  
City Employees' Retirement System  
Room 505, City Hall South  
111 East 1st Street  
Los Angeles, California 90012

Gentlemen:

We are pleased to transmit herewith our Report on the Actuarial Valuation of your Retirement System made as of June 30, 1972.

We will be most happy to meet with you at your convenience to discuss the items contained in this Report.

Very truly yours,

COATES AND CRAWFORD  
Consulting Actuaries

January 31, 1973

By

*H. M. Church*  
Harry M. Church

HMC:th

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

In accordance with our agreement we have completed the actuarial valuation of the City Employees' Retirement System as of June 30, 1972.

In order to complete this valuation, the office of the Retirement System furnished us with a magnetic tape which contains all of the pertinent information for each member of the System as of June 30, 1972, including such information as current compensation, years of service credited, rates of contribution, and accumulated contributions. In addition to the above information on active members, we were also furnished punched cards for each person currently receiving an allowance from the Retirement System, together with such data as was necessary to determine the value of the allowance already entered upon.

During the year ending June 30, 1972, a net increase of 1,435 active members of the System occurred. There were also net increases of 175 persons receiving retirement allowances and a net increase of ten persons receiving survivorship allowances.

A summary of the active and retired membership of the System as of June 30, 1972 is shown in the following table. More detailed tables will be found at the end of this report.

SUMMARY OF MEMBERSHIP OF SYSTEM  
AS OF JUNE 30, 1972

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ACTIVE MEMBERS\*

	<u>Number</u>	<u>Annual Salary</u>
Males	14,991	\$185,916,648
Females	<u>4,999</u>	<u>44,205,928</u>
Total	19,990	\$230,122,576

\*Does not include members on military leave or members who terminated with a vested interest.

BENEFICIARIES

	<u>Number</u>	<u>Annual Retirement Allowances</u>	<u>Youngest Age</u>	<u>Oldest Age</u>	<u>Average Monthly Allowance</u>
Service Retirement**					
Males	2,212	\$ 7,492,922.64	53	97	\$282
Females	<u>1,154</u>	<u>2,630,374.08</u>	41	96	\$190
Total	3,366	\$10,123,296.72			

\*\*Including survivors under options.

Disability Retirements

Males	195	\$ 432,940.20	34	88	\$185
Females	<u>88</u>	<u>136,763.64</u>	30	94	\$130
Total	283	\$ 569,703.84			

Survivorships

Male	4	\$ 13,199.52	61	78	\$275
Female	<u>182</u>	<u>427,507.20</u>	36	91	\$196
Total	186	\$ 440,706.72			
<u>Grand Total</u>	3,835	\$11,133,707.28	30	97	\$242

## COMPENSATION EXPERIENCE

Since benefits under the System are based upon compensation of members, it is of interest to compare the average monthly compensation from year to year. These averages for the years indicated are as follows:

	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>
Males	\$753	\$795	\$838	\$916	\$990	\$1,033
Females	<u>546</u>	<u>578</u>	<u>604</u>	<u>655</u>	<u>687</u>	<u>737</u>
Combined	\$703	\$743	\$781	\$851	\$914	\$ 959

## ACCOUNTING BALANCE SHEET

We have been furnished with an Accounting Balance Sheet of the Retirement System as of June 30, 1972, which shows the distribution of the reserves now held by the System. This statement of assets was used in the completion of the actuarial valuation and no physical audit was required nor has been made by us.

## ACTUARIAL BALANCE SHEET

We have completed a valuation of the actuarial assets and liabilities of the Retirement System as of June 30, 1972, the results of which are shown on the Balance Sheet which follows the Accounting Balance Sheet. This valuation employed the actuarial assumptions adopted and factors developed at the time of the actuarial investigation and valuation made as of June 30, 1969, except that we were directed by the Board to use an interest assumption of 4-3/4%.

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

ACCOUNTING BALANCE SHEET

AS OF

JUNE 30, 1972

ASSETS

CASH:

In City Treasury	\$ 241,349.16
On Hand	<u>50.00</u>

TOTAL CASH

\$ 241,399.16

RECEIVABLES:

Accrued Interest on Bonds	\$ 3,765,515.31
Dividends Declared and Receivable	126,913.50
Receivable on Securities	<u>108,216.21</u>

TOTAL RECEIVABLES

\$ 4,000,645.02

INVESTMENTS:

Bonds - Par Value	\$282,125,050.04
Less Unamortized Bond Discount and Premium (Net)	<u>3,446,328.81</u>

Bonds - Book Value	\$278,678,721.23
Stocks at Cost	<u>44,833,015.45</u>

TOTAL INVESTMENTS

\$323,511,736.68

TOTAL ASSETS

\$327,753,780.86

LIABILITIES

LIABILITIES:

Accounts Payable	\$ 20,493.27
Due on Securities	<u>136,834.00</u>

TOTAL PAYABLES

\$ 157,327.27

RESERVES:

Accumulated Contributions of Members	\$125,609,350.83
Annuities	32,992,308.82
Prior Service	4,356,997.96
Subsequent Service	147,643,206.86
Cost of Living (Sec. 510.1)	12,901,617.46
Family Death Benefit Insurance	<u>1,298,097.76</u>

TOTAL RESERVES

\$324,801,579.69

SURPLUS:

Undistributed Earnings	\$ 26,671.99
Reserve for Investment Fluctuation:	
Bonds	\$ 397,563.21
Stocks	<u>2,409,457.20</u>
Surplus	<u>(38,818.50)</u>

TOTAL SURPLUS

\$ 2,794,873.90

TOTAL LIABILITIES

\$327,753,780.86

COATES AND CRAWFORD, CONSULTING ACTUARIES

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

ACTUARIAL BALANCE SHEET

ACTUARIAL VALUATION OF ASSETS AND LIABILITIES  
AS OF JUNE 30, 1972

ASSETS

1. Total Assets from Accounting Balance Sheet		\$327,753,780.86
2. Present Value of Future Contributions of Members		112,482,240.00
3. Present Value of Future Contributions by the City on Account of:		
(a) Subsequent Service Pensions, Disability Pensions, Death Benefits, and Continuance to Eligible Spouse Future Service Benefits	\$117,902,495.87	
(b) Prior Service Pensions and Minimum Pensions	8,019,667.04	
(c) Continuance to Eligible Spouse Prior Service Benefits	7,231,786.00	
(d) Cost of Living Pensions, Service Prior to July 1, 1967	25,967,243.00	
(e) Cost of Living Pensions, Future Service	19,067,552.54	178,188,744.45
4. TOTAL ASSETS		<u>\$618,424,765.31</u>

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

ACTUARIAL BALANCE SHEET

(Continued)

LIABILITIES

5.	Accounts Payable		\$	157,327.27
6.	Limited Pensions Payable			105,038.55
7.	Death Benefits Payable			21,000.00
8.	Service Retirement Allowances Now Being Paid:			
	(a) Annuities	\$ 26,508,825.00		
	(b) Subsequent Service Pensions	55,396,560.00		
	(c) Prior Service Pensions and Minimum Pensions	11,184,464.00		
	(d) Cost of Living Pensions	<u>10,130,898.00</u>		103,220,747.00
9.	Disability Allowances Now Being Paid:			
	(a) Annuities	\$ 1,214,372.00		
	(b) Disability Pensions and Minimum Pensions	4,130,285.00		
	(c) Cost of Living Pensions	<u>466,901.00</u>		5,811,558.00
10.	Survivorship Death Allowances Now Being Paid:			
	(a) Annuities	\$ 1,261,587.00		
	(b) Survivorship Pensions	3,223,028.00		
	(c) Cost of Living Pensions	<u>638,109.00</u>		5,122,724.00
11.	Service Retirement Allowances to be Granted in the Future for:			
	(a) Subsequent Service	\$337,698,358.00		
	(b) Prior Service and Minimum	<u>1,030,000.00</u>		338,728,358.00



LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

ACTUARIAL BALANCE SHEET  
(Continued)

LIABILITIES (Continued)

12.	Cost of Living Pensions to be Granted in the Future for:		
	(a) Active Members	\$ 48,567,816.00	
	(b) Retired Members	<u>13,092,830.00</u>	\$ 61,660,646.00
13.	Disability Allowances to be Granted in the Future		12,027,304.00
14.	Death Benefits to be Granted in the Future		35,261,904.65
15.	Contributions to be Returned upon Withdrawal:		
	(a) Past	\$ 26,626,880.00	
	(b) Future	<u>24,197,524.00</u>	50,824,404.00
16.	Investment Reserve, Undistributed Interest, and Surplus		2,794,873.90
17.	Contributions of Inactive Members		1,390,782.18
18.	Family Death Benefit Insurance Reserve		<u>1,298,097.76</u>
19.	TOTAL LIABILITIES		<u>\$618,424,765.31</u>

## COMMENTS ON ACTUARIAL BALANCE SHEET

The Actuarial Balance Sheet has been prepared in the same form as was used for the valuation made as of June 30, 1971. Item 3 on the asset side of the balance sheet shows the present value of the future contributions to be made by the City on account of (a) Subsequent Service Pensions, Disability Pensions, Death Benefits, and Continuance to Eligible Spouse Future Service Benefits, (b) Prior Service Pensions and Minimum Pensions, (c) Continuance to Eligible Spouse Prior Service Benefits and (d) and (e) Cost of Living Pensions, corresponding to the various rates which are recommended in this report.

Items 8 through 15 show the actuarially computed present values of all future benefits to be paid by the System on behalf of all presently retired and active members, while Item 16 sets forth the surplus which is shown on the Accounting Balance Sheet.

## RECOMMENDATIONS

Based upon the valuation described herein, we recommend the following contributions which, in our opinion, are in accordance with the provisions of the Charter and are adequate to maintain the System on a sound actuarial basis:

1. That members continue to contribute at the same rates that became effective July 1, 1972.
2. That City contributions for the fiscal year 1973-1974 be made up as follows:

- (a) For subsequent service pensions, continuance to eligible spouse future service benefits, disability pensions, death benefits and cost of living future service pensions, 6.539% of the compensation of members covered by the System, which may be broken down as follows:

Subsequent Service Pensions, Disability Pensions, Death Benefits, and Continuance to Eligible Spouse Benefits	5.629%
Cost of Living Future Service	<u>.910%</u>
Total	6.539%

- (b) For prior service pensions and minimum pensions; \$554,842.00. Annual contributions of this amount will liquidate the unfunded liability of \$8,019,667.04 for such pensions by June 30, 1997.
- (c) For continuance to eligible spouse benefits applicable to service rendered to June 30, 1965; \$606,627.00. Annual contributions of this amount will liquidate the unfunded liability of \$7,231,786.00 for such benefits over the period ending June 30, 1990.
- (d) For Cost of Living Benefits, Service to June 30, 1967; \$1,796,547.00. Annual contributions of this amount will liquidate the unfunded liability of \$25,967,243.00 for such benefits over the period ending June 30, 1997.
- (e) For the Family Death Benefit Insurance Plan; \$3.70 per month for each participating member.

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

Number and Amount of Retirement Allowances In Effect:

	<u>Number</u>	<u>Monthly Allowance</u>				<u>Total</u>
		<u>Minimum</u>	<u>Past Service or Disability</u>	<u>Subsequent Service</u>	<u>Annuity</u>	
<u>Service Retirement</u>						
Male	2,212	\$ 6,679.14	\$ 93,439.67	\$375,160.62	\$149,130.79	\$624,410.22
Female	<u>1,154</u>	<u>2,857.06</u>	<u>28,805.14</u>	<u>127,071.29</u>	<u>60,464.35</u>	<u>219,197.84</u>
Total	3,366	\$ 9,536.20	\$122,244.81	\$502,231.91	\$209,595.14	\$843,608.06
<u>Disability Retirement</u>						
Male	195	\$ 792.69	\$ 27,437.20	\$ 720.71	\$ 7,127.75	\$ 36,078.35
Female	<u>88</u>	<u>309.57</u>	<u>6,893.03</u>	<u>1,614.74</u>	<u>2,579.63</u>	<u>11,396.97</u>
Total	283	\$ 1,102.26	\$ 34,330.23	\$ 2,335.45	\$ 9,707.38	\$ 47,475.32
<u>Survivorship</u>						
Male	4	\$ 7.63	\$ 204.63	\$ 654.88	\$ 232.82	\$ 1,099.96
Female	<u>182</u>	<u>660.91</u>	<u>5,659.38</u>	<u>20,070.17</u>	<u>9,235.14</u>	<u>35,625.60</u>
Total	186	\$ 668.54	\$ 5,864.01	\$ 20,725.05	\$ 9,467.96	\$ 36,725.56
Grand Total	3,835	\$11,307.00	\$162,439.05	\$525,292.41	\$228,770.48	\$927,808.94

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

Number of Active Members and Total Monthly Salary  
By Sex and Nearest Age

Age	Male		Female		Total	
	Number	Salary	Number	Salary	Number	Salary
20 and under	172	\$ 49,692	316	\$ 79,141	488	\$ 128,833
21	143	42,717	216	57,132	359	99,849
22	181	56,769	221	61,534	402	118,303
23	203	66,189	269	77,731	472	143,920
24	289	99,897	251	74,138	540	174,035
25	315	116,932	246	76,625	561	193,557
26	373	153,081	223	75,158	596	228,239
27	347	143,870	178	59,366	525	203,236
28	359	152,834	171	59,563	530	212,397
29	371	164,688	124	42,524	495	207,212
30	375	172,519	139	49,092	514	221,611
31	303	138,327	99	37,518	402	175,845
32	330	149,258	110	41,172	440	190,430
33	277	127,821	87	30,747	364	158,568
34	358	165,567	80	28,870	438	194,437
35	344	158,190	100	35,151	444	193,341
36	304	139,828	80	29,129	384	168,957
37	344	161,219	71	24,674	415	185,893
38	354	164,925	74	25,217	428	190,142
39	361	172,268	50	19,782	411	192,050
40	350	164,210	66	25,263	416	189,473
41	350	171,827	74	27,495	424	199,322
42	359	170,160	90	34,101	449	204,261
43	362	183,192	86	32,553	448	215,745
44	343	171,028	99	36,583	442	207,611
45	386	202,476	80	28,831	466	231,307
46	397	198,773	86	32,119	483	230,892
47	461	244,537	71	26,492	532	271,029
48	416	217,948	95	34,430	511	252,378
49	440	229,438	95	37,076	535	266,514

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

Number of Active Members and Total Monthly Salary  
By Sex and Nearest Age

Age	Male		Female		Total	
	Number	Salary	Number	Salary	Number	Salary
50	459	\$ 244,858	75	\$ 27,942	534	\$ 272,800
51	460	241,601	95	34,542	555	276,143
52	414	216,089	78	29,969	492	246,058
53	395	199,748	81	30,221	476	229,969
54	388	202,080	77	28,974	465	231,054
55	362	191,615	74	29,177	436	220,792
56	356	183,712	64	25,871	420	209,583
57	291	158,646	89	32,595	380	191,241
58	300	150,111	60	24,043	360	174,154
59	291	147,301	50	19,925	341	167,226
60	245	122,574	52	20,400	297	142,974
61	186	96,909	58	22,054	244	118,963
62	203	101,119	43	15,514	246	116,633
63	162	82,430	28	9,976	190	92,406
64	142	72,320	29	10,938	171	83,258
65	120	59,176	28	11,444	148	70,620
66	86	45,946	22	8,403	108	54,349
67	61	30,155	18	7,194	79	37,349
68	54	26,729	12	4,870	66	31,599
69	40	21,350	14	4,935	54	26,285
70 and over	9	5,991	5	2,034	14	8,025
	<u>14,991</u>	<u>\$7,150,640</u>	<u>4,999</u>	<u>\$1,700,228</u>	<u>19,990</u>	<u>\$8,850,868</u>