

REPORT ON
ACTUARIAL VALUATION
OF THE
CITY EMPLOYEES' RETIREMENT SYSTEM
OF THE
CITY OF LOS ANGELES
AS OF
JUNE 30, 1970

February 5, 1971

OFFICES IN
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February 5, 1971

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, 1970.

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

Very truly yours,

COATES, HERFURTH & ENGLAND
Consulting Actuaries

By



E. L. Chapin

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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, 1970.

In order to complete this valuation, the office of the Retirement System furnished us with punched cards which contain all the pertinent information for each member of the System as of June 30, 1970, 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, 1970, a net increase of 890 active members of the System occurred. There were also net increases of 99 persons receiving service retirement allowances and a net decrease of one person receiving survivorship allowances.

A summary of the active and retired membership of the System as of June 30, 1970 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, 1970

ACTIVE MEMBERS*

	<u>Number</u>	<u>Annual Salary</u>
Males	13,515	\$148,564,380
Females	<u>4,454</u>	<u>35,034,936</u>
Total	17,969	\$183,599,316

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

BENEFICIARIES

	<u>Number</u>	<u>Annual Retirement Allowances</u>
Service Retirement**		
Males	2,136	\$6,714,688.68
Females	<u>1,015</u>	<u>2,197,400.16</u>
Total	3,151	\$8,912,088.84

**Including survivors under options

Disability Retirements

Males	153	\$ 293,776.32
Females	<u>80</u>	<u>113,637.96</u>
Total	233	\$ 407,414.28

Survivorships

Male	3	\$ 6,753.24
Female	<u>164</u>	<u>367,623.36</u>
Total	167	\$ 374,376.60
<u>Grand Total</u>	3,551	\$9,693,879.72

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:

AVERAGE MONTHLY COMPENSATION

	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>
Males	\$690	\$720	\$753	\$795	\$838	\$916
Females	<u>511</u>	<u>529</u>	<u>546</u>	<u>578</u>	<u>604</u>	<u>655</u>
Combined	\$648	\$674	\$703	\$743	\$781	\$851

ACCOUNTING BALANCE SHEET

We have been furnished with an Accounting Balance Sheet of the Retirement System as of June 30, 1970, 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

Upon the basis of the actuarial assumptions adopted and factors developed at the time of the actuarial investigation and valuation made as of June 30, 1969, we have completed a valuation of the actuarial assets and liabilities of the Retirement System and show the results on the Balance Sheet which follows the Accounting Balance Sheet.

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

ACCOUNTING BALANCE SHEET
AS OF
JUNE 30, 1970

ASSETS

FUNDS:

Cash in City Treasury	\$ 300,912.40
Cash on Hand	<u>50.00</u>

TOTAL CASH \$ 300,962.40

RECEIVABLES:

Accrued Interest on Bonds	\$ 2,863,562.89
Dividends Declared and Payable	6,623.80
Due on Security Exchange	<u>6,698.06</u>

TOTAL RECEIVABLES \$ 2,876,884.75

INVESTMENTS:

Bonds on Hand - Par Value	\$239,838,474.75
Less Bond Discount - Unamortized (Net)	<u>(1,838,160.89)</u>
Bonds on Hand at Book Value	\$238,000,813.86
Stocks on Hand at Cost	<u>23,310,344.12</u>

TOTAL INVESTMENTS 261,310,657.98

TOTAL ASSETS \$264,488,505.13

LIABILITIES

Accounts Payable \$ 25,875.96

RESERVES:

Accumulated Contributions of Members	\$101,852,756.56
Annuities and Interest Thereon Prior Service	27,511,252.03
Subsequent Service	6,077,846.71
Disability Allowances	104,969,873.72
Death Benefits	4,449,560.84
Cost of Living (Section 510.1)	11,066,300.33
Family Death Benefit Insurance	6,694,718.88
	<u>941,836.05</u>

TOTAL RESERVES \$263,564,145.12

SURPLUS:

Undistributed Interest	\$ 27,208.92
Reserve for Investment Fluctuation	650,609.28
Surplus	<u>220,665.85</u>

TOTAL SURPLUS \$ 898,484.05

TOTAL LIABILITIES \$264,488,505.13

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

ACTUARIAL BALANCE SHEET

ACTUARIAL VALUATION OF ASSETS AND LIABILITIES
AS OF JUNE 30, 1970

ASSETS

1. Total Assets from Accounting Balance Sheet		\$264,488,505.13
2. Present Value of Future Contributions of Members		108,887,028.00
3. Present Value of Future Contributions by the City on Account of:		
(a) Subsequent Service Pensions and Continuance to Eligible Spouse Future Service Benefits	\$108,280,928.25	
(b) Disability Pensions	3,677,307.16	
(c) Death Benefits	2,568,615.29	
(d) Prior Service Pensions and Minimum Pensions	8,583,658.29	
(e) Continuance to Eligible Spouse Prior Service Benefits	8,064,721.00	
(f) Cost of Living Pensions, Service Prior to July 1, 1967	28,531,403.00	
(g) Cost of Living Pensions, Future Service	<u>16,717,205.12</u>	<u>176,423,838.11</u>
4. TOTAL ASSETS		<u>\$549,799,371.24</u>

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

ACTUARIAL BALANCE SHEET

(Continued)

LIABILITIES

5.	Accounts Payable		\$	25,875.91
6.	Limited Pensions Payable			102,722.61
7.	Death Benefits Payable			16,500.00
8.	Service Retirement Allowances Now Being Paid:			
	(a) Annuities	\$	22,886,738.00	
	(b) Subsequent Service Pensions		48,631,821.00	
	(c) Prior Service Pensions and Minimum Pensions		12,855,187.00	
	(d) Cost of Living Pensions		<u>8,007,591.00</u>	92,381,337.00
9.	Disability Allowances Now Being Paid:			
	(a) Annuities	\$	941,887.00	
	(b) Disability Pensions and Minimum Pensions		3,019,690.00	
	(c) Cost of Living Pensions		<u>334,645.00</u>	4,296,222.00
10.	Survivorship Death Allowances Now Being Paid:			
	(a) Annuities	\$	1,107,157.00	
	(b) Survivorship Pensions		2,908,211.00	
	(c) Cost of Living Pensions		<u>531,158.00</u>	4,546,526.00
11.	Service Retirement Allowances to be Granted in the Future For:			
	(a) Subsequent Service	\$	301,550,651.00	
	(b) Prior Service and Minimum		<u>1,598,459.00</u>	303,149,110.00

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	\$ 43,475,445.00	
	(b) Retired Members	<u>12,141,909.00</u>	\$ 55,617,354.00
13.	Disability Allowances to be Granted in the Future		10,796,263.00
14.	Death Benefits to be Granted in the Future		31,340,670.39
15.	Contributions to be Returned upon Withdrawal:		
	(a) Past	\$ 21,585,956.00	
	(b) Future	<u>22,934,040.00</u>	44,519,996.00
16.	Investment Reserve, Undistributed Interest, and Surplus		898,484.05
17.	Contributions of Inactive Members		1,166,474.17
18.	Family Death Benefit Insurance Reserve		<u>941,836.05</u>
19.	TOTAL LIABILITIES		<u>\$549,799,371.24</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, 1969. 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 and Continuance to Eligible Spouse Future Service Benefits, (b) Disability Pensions, (c) Death Benefits, (d) Prior Service Pensions and Minimum Pensions, (e) Continuance to Eligible Spouse Prior Service Benefits and (f) and (g) 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 rates presently being used.
2. That City contributions for the fiscal year 1971-1972 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, 7.493% of the compensation of members covered by the System, which may be broken down as follows:

Subsequent Service Pensions and Continuance to Eligible Spouse Benefits	6.182%
Disability Pensions	.210%
Death Benefits	.147%
Cost of Living Future Service	<u>.954%</u>
Total	7.493%

- (b) For prior service pensions and minimum pensions; \$540,490.00. Annual contributions of this amount will liquidate the unfunded liability of \$8,583,658.29 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 \$8,064,721.00 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 \$28,531,403.00 for such benefits over the period ending June 30, 1997.
- (e) For the Family Death Benefit Insurance Plan; \$2.58 per month for each participating member.

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	106	\$ 58,983	359	\$181,155	465	\$240,138
21	74	44,687	229	119,767	303	164,454
22	103	63,449	206	111,288	309	174,737
23	171	118,603	231	133,776	402	252,379
24	239	181,923	196	119,965	435	301,888
25	254	192,233	169	105,013	423	297,246
26	274	215,381	176	112,020	450	327,401
27	298	245,887	133	83,198	431	329,085
28	313	270,117	112	73,628	425	343,745
29	252	217,831	113	81,267	365	299,098
30	289	243,802	107	75,798	396	319,600
31	277	238,547	87	57,285	364	295,832
32	319	274,590	74	50,318	393	324,908
33	336	283,381	87	58,623	423	342,004
34	276	239,170	69	48,544	345	287,714
35	320	281,436	58	37,986	378	319,422
36	329	291,232	69	46,776	398	338,008
37	328	300,154	46	34,240	374	334,394
38	317	281,439	55	39,103	372	320,542
39	331	306,508	70	49,804	401	356,312
40	320	288,719	85	59,047	405	347,766
41	344	324,167	75	54,507	419	378,674
42	329	309,741	84	57,452	413	367,193
43	366	356,698	71	48,742	437	405,440
44	371	350,599	82	57,096	453	407,695
45	433	432,435	69	47,784	502	480,219
46	391	386,595	88	59,834	479	446,429
47	428	418,964	95	70,333	523	489,297
48	436	433,860	69	47,608	505	481,468
49	439	435,113	87	60,012	526	495,125

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

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

<u>Age</u>	<u>Male</u>		<u>Female</u>		<u>Total</u>	
	<u>Number</u>	<u>Salary</u>	<u>Number</u>	<u>Salary</u>	<u>Number</u>	<u>Salary</u>
50	405	\$ 392,793	76	\$ 54,394	481	\$ 447,187
51	390	370,652	76	54,448	466	425,100
52	376	362,980	80	54,921	456	417,901
53	356	354,363	78	59,678	434	414,041
54	355	345,129	62	47,063	417	392,192
55	304	310,647	85	59,258	389	369,905
56	318	296,857	64	47,426	382	344,283
57	300	283,113	55	41,800	355	324,913
58	261	242,479	55	40,956	316	283,435
59	193	192,030	73	53,485	266	245,515
60	231	217,741	54	39,258	285	256,999
61	185	175,357	37	26,612	222	201,969
62	173	165,168	42	32,174	215	197,342
63	145	135,784	36	27,345	181	163,129
64	118	117,567	35	26,079	153	143,646
65	91	83,194	23	17,790	114	100,984
66	86	80,428	22	17,212	108	97,640
67	63	62,022	20	14,235	83	76,257
68	50	49,503	13	11,581	63	61,084
69	35	39,949	6	4,058	41	44,007
70 and over	<u>17</u>	<u>16,365</u>	<u>11</u>	<u>7,836</u>	<u>28</u>	<u>24,201</u>
Total	13,515	\$12,380,365	4,454	\$2,919,578	17,969	\$15,299,943

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	2,136	\$ 9,124.37	\$ 99,798.94	\$320,331.30	\$130,302.78	\$559,557.39
Female	<u>1,015</u>	<u>3,492.69</u>	<u>29,628.97</u>	<u>102,789.21</u>	<u>47,205.81</u>	<u>183,116.68</u>
Total	3,151	\$12,617.06	\$129,427.91	\$423,120.51	\$177,508.59	\$742,674.07
<u>Disability Retirement</u>						
Male	153	\$ 840.50	\$ 17,677.89	\$ 971.15	\$ 4,991.82	\$ 24,481.36
Female	<u>80</u>	<u>327.15</u>	<u>5,786.76</u>	<u>1,339.10</u>	<u>2,016.82</u>	<u>9,469.83</u>
Total	233	1,167.65	\$ 23,464.65	\$ 2,310.25	\$ 7,008.64	\$ 33,951.19
<u>Survivorship</u>						
Male	3	\$ 7.63	\$ 69.64	\$ 352.56	\$ 132.94	\$ 562.77
Female	<u>164</u>	<u>703.48</u>	<u>6,093.31</u>	<u>16,328.91</u>	<u>7,509.58</u>	<u>30,635.28</u>
Total	167	\$ 711.11	\$ 6,162.95	\$ 16,681.47	\$ 7,642.52	\$ 31,198.05
Grand Total	3,551	\$14,495.82	\$159,055.51	\$442,112.23	\$192,159.75	\$807,823.31