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The City
Of Los Angeles

City Employees'
Retirement System

Actuarial Valuation As Of June 30, 1993

Prepared By

Wyatt



December 20, 1993

The Wyatt Company

Consultants and Actuaries

Board of Administration City Employees' Retirement System 8th Floor 360 East Second Street Los Angeles, California 90012

Members of the Board:

We are pleased to present our actuarial valuation report as of June 30, 1993 for the City Employees' Retirement System. This report contains the results of the valuation of the retirement and health subsidy benefits provided by the System.

This report is divided into three parts:

- A. Valuation Summary: This section contains an overview of significant valuation results.
- B. Valuation Detail: This section contains more detailed results of the valuation. Section I contains details of the retirement valuation. Section II contains details of the health subsidy valuation.
- C. Exhibits: This section contains information on plan demographics, plan provisions, and actuarial assumptions used in the valuation.

We appreciate the opportunity to serve the City of Los Angeles and the Board of Administration as actuary for the City Employees' Retirement System.

Sincerely,

The WYATT Company

Sharon A. Peake, FSA Consulting Actuary

Steven G. Vernon, FSA **Consulting Actuary**

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Valuation Summary

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Actuarial Valuation As Of June 30, 1993

Introduction

Officers and employees of the City of Los Angeles and their beneficiaries are entitled to retirement benefits (including disability and survivors' benefits) and health subsidy benefits under Article XXXIV of the Charter of the City of Los Angeles and by related ordinances. This retirement system is known as the City Employees' Retirement System.

This report contains the results of the June 30, 1993 valuation of both the retirement and health subsidy benefits of the Retirement System. It contains our calculations of the annual budget of the System, as provided in Section 506 of the Charter. It also contains the funded status and disclosure information as of June 30, 1993, required under Government Accounting Standards Board (GASB) Statement Number 5.

The valuation results were based on the demographic assumptions as outlined in Exhibits VI through IX and the following economic assumptions:

- 8.0% annual interest.
- 6.0% annual salary increases,
- 3.0% annual increases in the Consumer Price Index.

There were no changes made in actuarial assumptions for the retirement valuation. The medical trend rate assumption used in the valuation of health subsidy benefits was adjusted since the last valuation to better reflect our expectations for the future cost of health benefits. The new assumptions are described in Exhibit VII.

The normal cost includes an amount to fund certain administration expenses expected to be paid from plan assets during 1994-1995. All valuation methods remain unchanged since the last valuation.

We believe the assumptions and methods used are appropriate for use in the evaluation of the liabilities of the Retirement System at June 30, 1993.

This Valuation Summary contains an overview of our valuation results. More detail on these results can be found in the Valuation Detail and Exhibit sections of this report.

A schedule containing all of the significant results of our valuation can be found on the next page.

Actuarial Valuation As Of June 30, 1993

	Summary of Significant Valuation Results				
		June 30, 1993	June 30, 1992	Percent Change	
1.	Total Membership A. Active Members B. Pensioners	22,777 11,641	23,399 11,359	-2.7% +2.5%	
II.	Salaries at June 30 A. Total Annual Payroll B. Average Monthly Salary	\$898,116,886 \$3,286	\$915,343,121 \$3,259	-1.9% +0.8%	
III.	Benefits to Current Pensioners and Beneficiaries A. Total Annual Benefits B. Average Monthly Benefit Amount	\$183,233,760 \$1,312	\$168,472,288 \$1,236	+8.8% +6.1%	
IV.	Total System Assets (Actuarial Value)	\$3,646,189,500	\$3,298,714,000	+10.5%	
V.	Unfunded Actuarial Accrued Liability A. Retirement Benefits B. Health Subsidy Benefits	\$398,113,954 \$275,832,038	\$511,906,957 \$304,937,076	-22.2% -9.5%	
VI.	Budget Items A. Retirement Benefits 1. Normal Cost as a Percent of Pay 2. Amortization of Unfunded Actuarial	7.54% 5.95% \$2,724,502 13.49% 3.18% 16.67% \$2,724,502	6.85% 6.22% \$2,724,502 13.07% 3.26% 16.33% \$2,724,502	+10.1% -4.3% +0.0% +3.2% -2.5% +2.1% +0.0%	
VII.	Funded Ratio (Based on Actuarial Value of Assets) A. Retirement Benefits B. Health Subsidy Benefits C. Total	89.5% 44.5% 84.3%	85.8% 39.1% 80.1%	+4.3% +13.8% +5. 2%	

Budget Requirements

The Charter of the City of Los Angeles requires that budget amounts for the City Employees' Retirement System be determined annually. In determining these amounts, the System currently uses the Projected Unit Credit Cost Method. The required annual contribution is made up of two parts:

- The Normal Cost, or the cost of the portion of the benefit that is earned each year.
- The payment to amortize the Unfunded Actuarial Accrued Liability (UAAL). Most of the UAAL is amortized as a level percent of pay over the period ending June 30, 2004. Increases in the UAAL due to assumption changes are amortized over 30 years and gains and losses are amortized over 15 years, both as a level percent of pay. Plan amendments are amortized over 30 years as a level percent of pay, unless the characteristics of the amendment dictate a shorter amortization period. Smaller pieces of the UAAL are amortized as a level dollar amount over various periods.

Below, we present a summary of budget requirements for the City Employees' Retirement System. In total, the recommended contribution increased by 2.1% from last year.

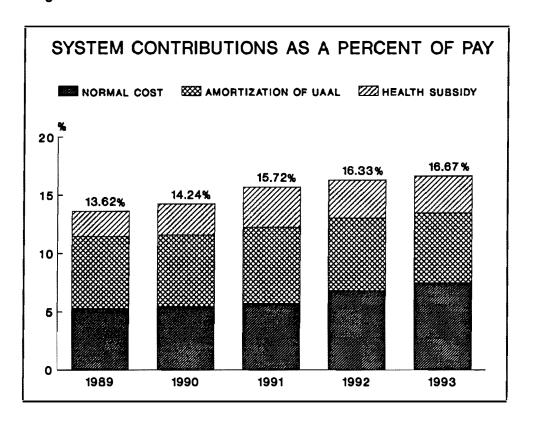
Recommended City Contributions For Fiscal Year 1994 - 1995				
	Percentage of Salary		Fixed Dollar Amount	
Contribution for Retirement, Disability, and Death Benefits	13.49%	plus	\$2,724,502	
Contribution for Health Subsidy Benefits	3.18%			
Total Contribution	16.67%	plus	\$2,724,502	

The contribution for retirement disability, and death benefits includes a cost of 1.22% of salary for certain administration expenses expected to be paid from plan assets in 1994-1995.

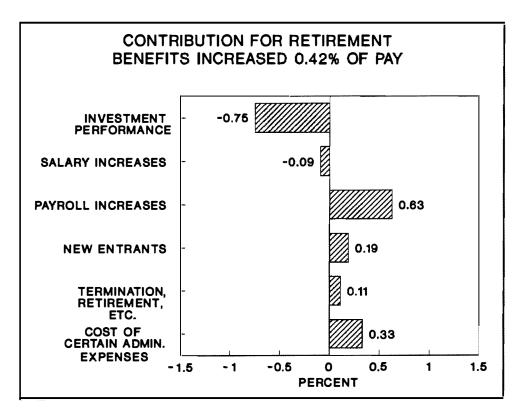
A more detailed explanation of these results can be found in the Valuation Detail section of this report.

We also completed a valuation of the Family Death Benefit Plan as of June 30, 1993. We recommend that the Members and the City each continue to contribute \$2.90 per month to participate in this Plan.

The following graph illustrates the funding levels of the past few years for both the retirement benefits and the health subsidy benefits. These percent-of-pay amounts do not include the small pieces of the UAAL being amortized as a level dollar amount.



The graph below illustrates the effect of gains and losses over the past year on the recommended System contribution for retirement benefits.



In the previous graph, we have shown a reduction of .09% of pay due to salary increases. This is the effect of individual salary increases being less than assumed. We have also shown a cost increase of .63% of pay due to total payroll increases being less than assumed. Here we are referring to changes in total System payroll, over which CERS' unfunded actuarial liability is amortized. When we spread payments to fund the UAAL over future years, we assume total payroll will increase by 6% every year. If payroll does not increase by 6% in any year, as it did not in 1992-1993, the UAAL must be spread over a smaller than assumed payroll base. This causes the percent of pay amount required to fund the UAAL to increase.

The cost to fund certain administrative expenses from the trust caused a contribution increase of .33% of pay because the dollar amount of expenses expected to be paid increased since last year.

Funded Status At June 30, 1993

In order to assess the funded status of the System, disclosure of a standardized measure of pension liability is required by Government Accounting Standards Board (GASB) Statement No. 5 - Disclosure of Pension Information by Public Employee Retirement Systems and State and Local Governmental Employers. This measure of funded status compares the present value of benefits accrued to June 30, 1993 to the value of accumulated plan assets. For retired Members and beneficiaries, the present value of remaining benefit payments is disclosed. For active Members, the present value of the benefits accrued to June 30, 1993 is disclosed. In the latter calculation, we calculate accrued benefits based upon service to June 30, 1993. We also recognize assumed future salary increases. GASB No. 5 covers only pension type benefits provided by public employee retirement systems.

Under GASB Statement No. 12, Disclosure of Information on Post Employment Benefits Other Than Pensions by State and Local Government Employers, issued in November 1989, the expenditures and expenses for the period are the only financial information that needs to be disclosed for post-retirement health subsidy benefits. However, the statement encourages more complete disclosures of information, if available. Therefore, we have included a GASB No. 5 figure for the health subsidy benefits of the System in this report, as if GASB No. 5 applied to health subsidy benefits.

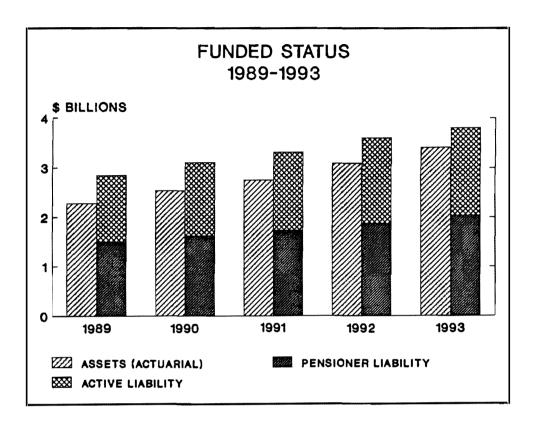
On the next page, we present the funded status of the System under GASB No. 5, along with a comparison of the System's funded status in the prior year. The current System assets available at actuarial value for retirement benefits are 168% of the present value of retirement benefits for current retired members and their beneficiaries. When the present value of accrued retirement benefits for active Members is added, the System assets available for retirement benefits at actuarial value represent 89.5% of the total present value of accrued retirement benefits on June 30, 1993. This funded ratio increased since the last valuation, due to a return on assets which was greater than the 8% assumed, and gains due to salary increases in 1992-1993.

Current health subsidy reserves at actuarial value are 81.4% of the present value of health subsidy benefits for current retired Members. When the present value of health subsidy benefits for active Members with ten or more years of service is added, the funded ratio becomes 44.5%.

The combined funded ratio for retirement and health subsidy benefits is 89.0% using the market value of assets and 84.3% using the actuarial value of assets.

FUNDED STATUS				
	June 30, 1993	June 30, 1992	Percent Change	
Retirement Benefits				
Present Value of Retirement Benefits Earned				
- Retired Members and Beneficiaries	\$2,029,260,217	\$1,866,586,901	+8.7%	
- Active Members	1,775,085,976	1,730,837,672	+2.6%	
- Total	\$3,804,346,193	\$3,597,424,573	+5.8%	
Value of Assets Available for Retirement Benefits				
Market Actuarial	\$3,593,660,096 \$3,406,232,239	\$3,195,875,357 \$3,085,517,616	+12.4% +10.4%	
Funded Ratio for Retirement Benefits Market Actuarial	94.5% 89.5%	88.8% 85.8%	+6.4% +4.3%	
Health Subsidy Benefits				
Present Value of Health Subsidy Benefits Earned				
- Retired Members	\$272,140,352	\$273,324,576	-0.4%	
- Active Members With Ten or More Years of Service	225,122,607	227,410,067	-1.0%	
- Total	\$497,262,959	\$500,734,643	-0.7%	
Value of Assets Available for Health Subsidy Benefits				
Market Actuarial	\$233,615,152 \$221,430,921	\$202,800,533 \$195,797,567	+15.2% +13.1%	
Funded Ratio for Health Subsidy Benefits Market Actuarial	47.0% 44.5%	40.5% 39.1%	+16.0% +13.8%	
Combined Retirement and Health Subsidy Funded Ratio	89.0% 84.3%	82.9% 80.1%	+7.4% +5.2%	

The graph below compares assets to liabilities under GASB No. 5 for retirement benefits only, for the years 1989-1993. Assets exceed liabilities for pensioners, and are about 94.5% of total retirement liabilities using market value of assets and 89.5% of total retirement liabilities using actuarial value in 1993.



System Assets

The following asset information was provided to us by the Retirement Office. We have not audited or verified these figures.

	June 30, 1993	June 30, 1992	Percent Change
Total System Assets Market Value Book Value Actuarial Value	\$3,846,821,000 3,445,558,000 3,646,189,500	\$3,416,697,000 3,180,731,000 3,298,714,000	+12.6% +8.3% +10.5%

Rate of Return July 1, 1992 - June 30, 1993	
The rate of return on total plan assets was as follows:	
Market Value Book Value Actuarial Value	12.70% 8.41% 10.63%
These rates of return were based on the following cash flow information:	
Contributions City Members	\$ 170,545,108 42,719,604
Pensions Paid Retirement Allowances Family Death Benefits Health Benefits	175,012,342 559,076 21,387,417
Refunds of Member Contributions	6,927,586
Administration Expenses	10,338,982
Investment Earnings Realized Unrealized	265,787,849 165,296,842

The 10.63% rate of return on the actuarial value is greater than the 8.0% rate assumed for the prior year, which resulted in an actuarial gain. The budgeted contribution for the System would have been slightly higher if not for this gain.

More detail on System assets can be found in the Exhibits section of this report.

Summary of System Funding

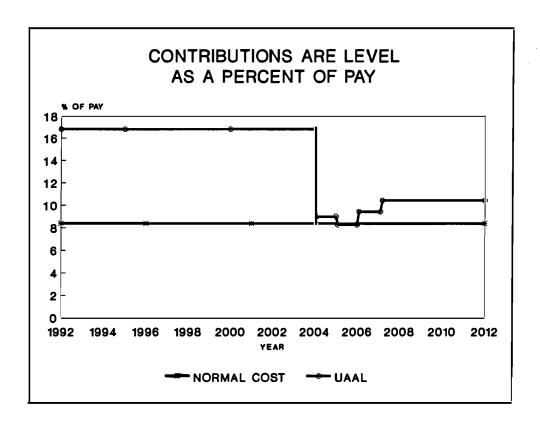
As of June 30, 1993, the System had assets at actuarial value equal to 84% of the present value of benefits accrued to that date, as calculated under GASB No. 5. When compared to the present value of all benefits expected to be paid by the System (including benefits expected to be earned in the future), assets equal 62% of liabilities. This remaining unfunded liability is to be funded by future City and Member contributions to the System.

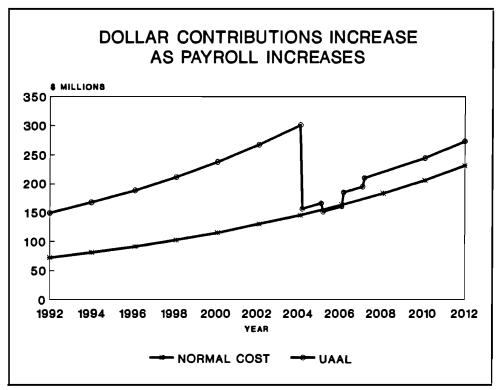
The City contributions are made up of two parts:

- Normal Cost Contributions: These contributions are determined as the cost of the System benefits accruing each year. If all assumptions are realized and there are no gains or losses, this amount will remain unchanged as a percent of pay unless the average age of the population increases. In this case, contributions as a percent of pay will increase. The contributions will also increase as a dollar amount as total covered payroll increases. The normal cost also contains an amount to fund certain administrative expenses that are paid from the trust.
- Funding of Unfunded Actuarial Accrued Liability (UAAL): The UAAL represents liabilities accrued to date, that have not been funded by prior years' normal costs. Most of the UAAL is funded as a level percent of payroll until the year 2004. Increases in the UAAL due to assumption changes are amortized over 30 years and gains and losses are amortized over 15 years, both as a level percent of pay. Plan amendments are amortized over 30 years as a level percent of pay, unless the characteristics of the amendment dictate a shorter amortization period. If in the future all assumptions are realized and if there are no future gains or losses, the current contribution percentage will not change until the pieces that make up the UAAL are fully amortized. However, it will increase as a dollar amount as the total covered payroll increases. Smaller pieces of the UAAL are amortized as level dollar amounts. These amounts will remain constant, and are not affected by gains and losses.

The total contribution will be the sum of the Normal Cost and UAAL contributions.

The following graphs are an illustration of expected future contribution levels. These contribution levels are based on the current Charter provisions and assume no future gains or losses. They are also based on our assumption of 6.0% annual increase in total System payroll, and a population with the same average age and service characteristics as the current population. If actual experience differs from this these contribution levels will change.





Valuation Detail

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System Membership

Computer tapes containing data on System membership as of June 30, 1993 were supplied to us by the Retirement Office. On the following schedules we present a summary of System membership at June 30, 1993 and June 30, 1992. Pension amounts shown on the following schedule do not include the cost-of-living adjustments that were effective on July 1, 1993. All July 1 increases were reflected in our valuation calculations.

It was necessary to make assumptions for less than 0.1% of the data records where the information given to us was unreasonable or incomplete. These assumptions did not materially affect the results of our valuation.

The number of total active Members decreased 2.7% since the last valuation. The total number of retired Members and their beneficiaries increased 2.5%, while the average retirement benefit amount increased 6.1%. The following schedule contains a more detailed breakdown of these figures.

More detail on System membership, including breakdowns by age and service categories, can be found in Exhibits XI, XII, and XIII of this report.

SYSTEM MEMBERSHIP				
	June 30, 1993	June 30, 1992	Percent Change	
I. Active Members				
a. Number b. Average Age c. Average Years of Service d. Salary i) Total Annual Salary ii) Average Monthly Salary II. Pensioners and Beneficiaries	22,777 42.7 11.2 \$898,116,886 \$3,286	23,399 42.1 10.6 \$915,343,121 \$3,259	-2.7% +1.4% +5.7% -1.9% +0.8%	
a. Number b. Average Age c. Allowance i) Total Annual Allowance ii) Average Monthly Amount	11,641 70.8 \$183,233,760 \$1,312	11,359 71.6 \$168,472,288 \$1,236	+2.5% -1.1% +8.8% +6.1%	

Applicable Assets At June 30, 1993

Assets available to pay pension benefits are determined by deducting certain reserves from the total actuarial value of assets amount.

		Book Value	Market Value	Actuarial Value
1.	Total Value of Assets at June 30, 1993	\$3,445,558,000	\$3,846,821,000	\$3,646,189,500
2.	Less Reserves and Liabilities Established for: a. Family Death Benefit Insurance b. Retiree Health Subsidy c. Total	17,506,929 209,246,689 226,753,618	19,545,752 233,615,152 253,160,904	18,526,340 <u>221,430,921</u> 239,957,261
3.	Net Assets Available for Retirement Benefits at June 30, 1993 (Item 1 less Item 2)	\$3,218,804,382	\$3,593,660,096	\$3,406,232,239

Actuarial Balance Sheet

The purpose of the Actuarial Balance Sheet is to compare System assets with System liabilities in order to define the portion of the liabilities which need to be funded by the City in the future. The Balance Sheet information in the next two pages represents assets and liabilities for retirement benefits only.

System liabilities equal the present value of all future benefits expected to be paid to current and future retirees and beneficiaries of the System.

For the purpose of the Actuarial Balance Sheet, system assets are equal to the sum of:

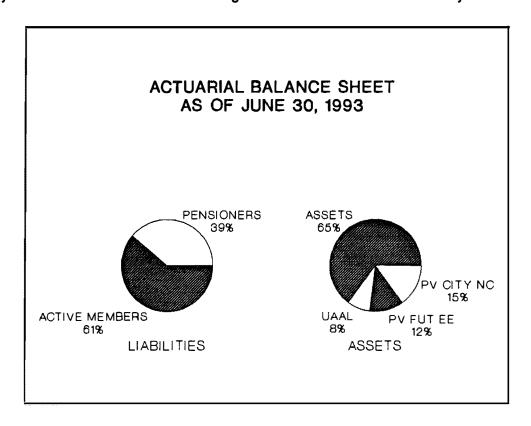
- the assets currently available to pay benefits,
- the present value of future contributions expected to be made by current System Members, and
- the present value of future contributions expected to be made by the City.

The last item, the present value of future City contributions, is made up of two parts:

- 1. The Present Value of Future City Normal Costs: Using the Projected Unit Credit Cost Method, the City budgets a certain percentage of payroll to fund benefits for System Members. The Normal Cost is the cost of benefits earned in each year. Normal Cost is funded from a member's date of employment to the average expected retirement date. An adjustment is made for the deductions which will be made from the salaries of System Members. For the 1994-1995 fiscal year, the normal cost percentage is 7.54% of pay. This amount includes a cost of 1.22% of pay to fund certain administration expenses expected to be paid from System assets during 1994-1995. The present value of these future City Normal Cost contributions represents one piece of the value of future City contributions.
- 2. The Unfunded Actuarial Accrued Liability: The portion of the present value of future City contributions which will not be funded by the future Normal Cost contributions is the Unfunded Actuarial Accrued Liability (UAAL). The UAAL arises from prior contributions that were less than the current Normal Cost percentage. This usually results from benefit or assumption changes and the net effect of prior gains and losses. If the City had always contributed the current Normal Cost, if there were no prior benefit or assumption changes and if actual experience exactly matched the actuarial assumptions, the Normal Cost would be sufficient to fund all benefits and there would be no UAAL. This liability is funded based on the provisions of the City Charter.

The Actuarial Balance Sheet can be found on the following pages.

The following chart illustrates the breakdown of Balance Sheet assets and liabilities of the retirement benefits of the System. It shows that about 39% of the System's liabilities are for retired Members and their beneficiaries and 61% are for active Members. About 65% of the System's assets consist of currently available assets with 35% consisting of future contributions from the City and the Members.



Actuarial Balance Sheet As Of June 30, 1993

ASSETS				
1. Applicable Assets	\$3,406,232,239			
2. Present Value of Future Member Contributions	\$654,999,005			
3. Present Value of Future Contributions by the City For:				
a. Basic Pensions i. Normal Costs \$586,485,02 ii. Amortization of Certain Liabilities 9,604,30 iii. Total				
b. Cost-of-Living Pensions i. Normal Cost \$199,449,885 ii. Amortization of Certain Liabilities 388,509,655 iii. Total	•			
4. Total Assets	\$5,245,280,102			
LIABILITIES				
5. Present Value of Benefits Already Granted (Pensioners and Beneficiaries)				
a. Basic \$1,242,966,23 b. Cost-of-Living 786,293,97 c. Total				
6. Present Value of Benefits to be Granted (Actives)				
a. Basic \$2,579,135,957 b. Cost-of-Living 636,883,920 c. Total				
7. Total Liabilities	\$5,245,280,102			

Budget And Recommended Contributions

Section 506 of the City Charter requires that an annual budget be prepared which sets forth the estimated cost of maintaining the retirement fund on a reserve basis.

The Charter defines the annual budget amount to be the sum of the Normal Cost plus an amount to amortize the Unfunded Actuarial Accrued Liability (UAAL). The Normal Cost and Actuarial Accrued Liability are currently calculated using the Projected Unit Credit Cost Method.

The Normal Cost is the cost of the System benefits earned each year. The Normal Cost consists of two parts: the first part, which is funded by Member contributions, is a specified percentage of the Member's pay; the second part, which is funded by the City, is the balance after deducting the Member paid portion from the total Normal Cost percentage.

The amortization of the UAAL is the payment stream required to fund the excess of System Liabilities over the sum of the System assets, future Member contributions, and future City Normal Cost contributions. (See section on the Actuarial Balance Sheet.) The method of amortization is defined in the Charter.

The recommended retirement contributions increased for the following reasons:

- The active group aged about one-half of a year on average since the last valuation. Under the Projected Unit Credit Funding Method, costs remain a level of percent of pay only if the age of the group remains constant. An aging population, such as CERS had this past year, increases plan costs when determined as a percent of payroll.
- In determining the payments to amortize the UAAL each year, the total payroll is assumed to increase 6% per year. The CERS payroll decreased almost 2% from June 30, 1992. Therefore, the contributions to fund the UAAL must increase as a percent of pay.
- The normal cost includes an amount to fund certain administration expenses expected to be paid from System assets in 1994-1995. The dollar amount of these expenses increased since last year and are being spread over a smaller payroll. Therefore, the contribution as a percent of pay which is added to the normal cost increased from 0.87% to 1.22%.

In our opinion, if the recommended contributions included in this report are adopted, the System will be maintained in compliance with the Charter of the City of Los Angeles and in accordance with the methods and assumptions underlying the calculations.

Recommended City Contributions For Fiscal Year 1994 - 1995				
	Percentage of Salary	plus	Fixed Dollar Amount	
For Basic Retirement Benefits				
Normal Cost	5.97%			
Prior Service-Minimum Pensions (amortized as a level dollar amount until June 30, 1997)			\$ 927,955	
Unfunded Actuarial Accrued Liability	1.42%			
Total Contributions for Basic Retirement Benefits	7.39%	plus	\$ 927,955	
For Cost-of-Living Retirement Benefits		•		
Normal Cost	1.57%			
Increase due to 1967 Amendment (Amortized as a level dollar amount until June 30, 1997)			\$1,796,547	
Unfunded Actuarial Accrued Liability	4.53%			
Total Contributions for Cost-of-Living Retirement Benefits	6.10%	plus	\$1,796,547	
Total Basic and Cost-of-Living Contributions for Retirement Benefits	13.49%	plus	\$2,724,502	

Detail of Amortization of Unfunded Actuarial Accrued Liability

Item	Remaining Years	Balance to be Amortized 06/30/93	Amortization Amount	Percentage of Salary
Basic Pensions				
1. Prior Service Pensions	4	\$3,073,504	\$927,955	N/A
2. Change in Asset Valuation Method at 06/30/89	26	(107,727,983)	(5,280,655)	(.59%)
3. Change in Assumptions at 06/30/89	26	(54,434,506)	(2,668,293)	(.30%)
4. Ad Hoc COLA Increase at 12/01/89	12	21,173,905	1,988,303	.22%
5. Actuarial Loss at 06/30/90	12	14,885,213	1,397,773	.16%
6. Actuarial Loss at 06/30/91	13	14,012,575	1,225,571	.14%
7. Actuarial Gain at 06/30/92	14	(73,433,231)	(6,017,510)	(.67%)
8. Actuarial Gain at 06/30/93	15	(106,655,325)	(8,230,370)	(.92%)
9. Remaining UAAL	11	298,710,150	30,325,390	3.38%
Total		\$9,604,302	\$13,668,164	1.42%
Cost-of-Living Pensions				
Increase Due to 1967 Amendments	4	\$5,950,392	\$1,796,547	N/A
2. Change in Assumptions at 06/30/89	26	(50,552,393)	(2,477,998)	(.28%)
3. Actuarial Gain at 06/30/90	12	(11,962,876)	(1,123,355)	(.13%)
4. Actuarial Gain at 06/30/91	13	(6,679,591)	(584,212)	(.07%)
5. Actuarial Loss at 06/30/92	14	38,194,521	3,129,863	.35%
6. Actuarial Loss at 06/30/93	15	2,673,149	206,281	.02%
7. Remaining UAAL	11	410,886,450	41,713,653	4.64%
Total		\$388,509,652	\$42,660,779	4.53%

Funded Status Of The System

The following table presents a breakdown of the funded status of the System into basic and cost-of-living retirement pensions. This information is calculated using the guidelines of GASB No.5 (see page 5). These figures do not include assets or liabilities of the health subsidy.

	June 30, 1993	June 30, 1992
Present Value of Benefits Earned to Valuation Date		
Basic Benefits	\$2,666,052,822	\$2,523,830,249
Cost-of-Living Benefits	1,138,293,371	1,073,594,324
Total	\$3,804,346,193	\$3,597,424,573
Actuarial Value of Assets Available for Retirement Benefits		
Basic Benefits	\$2,656,448,520	\$2,399,161,225
Cost-of-Living Benefits	749,783,719	686,356,391
Total	\$3,406,232,239	\$3,085,517,616
Funding Ratio		
Basic Benefits	99.6%	95.1%
Cost-of-Living Benefits	65.9%	63.9%
Total	89.5%	85.8%

Member Contributions

Members contribute to the Retirement System based on schedules contained in the City Administrative Code. For Members commencing participation before February 1, 1983, different contribution rate schedules apply to different groups because of various collective bargaining agreements. For purposes of this valuation, we have assumed that the contribution rates for these Members correspond to those effective on July 1, 1981. These contribution rates can be found in Exhibit X.

If certain Members from this group contribute at a lower rate through a collective bargaining agreement, the City should contribute 78% of the amount that would have been contributed by Members without the bargaining agreements. This 78% amount reflects the fact that certain participants will terminate when only eligible for a return of their contributions. The City does not need to contribute the amounts that are expected to be refunded after the Members' termination. In the prior valuation report, it was recommended that 76% of the defrayed amount be contributed. This percent is increasing because the group affected by the defrayal is aging. The probability that these Members will terminate and get a refund of contributions is decreasing.

For Members commencing participation after February 1, 1983, the contribution rate is 6%.

Family Death Benefit Insurance Plan

Section 511.1 of the City Charter establishes the Family Death Benefit Insurance Plan. This plan provides protection for the families of Members who die before becoming eligible for service retirement. The benefits provided by the plan are similar to those provided to survivors under Social Security. Members are eligible for dependent benefits after 18 months of participation in the Family Death Benefit Plan. They are eligible for surviving spouse benefits after ten years of participation in the plan.

Currently, the City and Members share the cost of the plan. Each contributes \$2.90 per month. This contribution rate is reviewed every two years to determine if the level of contributions is appropriate. We have reviewed the contribution level, and we recommend that Members and the City each continue to contribute \$2.90 per month until the next scheduled review, June 30, 1995.

Introduction

Division 4, Chapter 11 of the Administrative code provides that a health insurance subsidy be paid to retired Members of the City Employees' Retirement System. This subsidy is a monthly payment which retirees apply to the cost of health insurance. Retirees can select among a variety of plans sponsored by the City. Members are eligible for subsidy at retirement after age 55 with 10 years of service, or compulsory retirement at age 70. Exhibit V summarizes the provisions of the Health Insurance Premium Subsidy.

The System is building a reserve through the advance funding of the health insurance subsidy for current retirees and for active Members with sufficient service to receive a health subsidy (ten years). The actuarial value of the reserve available at June 30, 1993 is \$221,430,921. This amount was calculated by the City as part of the asset information provided to us. The City provides the book value of the health subsidy reserve, which we use along with estimates of the market value, to determine the actuarial value used in funding calculations.

This section of the report contains the results of the June 30, 1993 valuation of the retiree health insurance premium subsidy. In determining the budget amounts for the fiscal year 1994-1995, we have used the same funding method and methods of amortization used in the funding of the retirement benefits. We have also used the same economic and demographic assumptions as those used in the retirement valuation. In addition, special medical trend assumptions were used. These trend rates have been updated since the last valuation. A summary of the economic assumptions follows:

- 8.0% annual interest
- graded medical cost rates of 13.0% in 1993-1994, decreasing gradually to 6.0% in 2008 and beyond for benefits paid before age 65, and rates of 11.5% in 1993-1994 decreasing to 6.0% in 2007 and beyond for benefits paid after age 65.
- graded dental rates of 11.5% in 1993-1994 decreasing to 6.0% in 2007 and beyond.

We believe these assumptions are appropriate for use in the valuation of health subsidy liabilities of the City Employees' Retirement System at June 30, 1993. These assumptions are described in more detail in Exhibit VII.

Actuarial Balance Sheet

The purpose of the Actuarial Balance Sheet is to compare System assets with System liabilities in order to define the portion of the liabilities which need to be funded by the City in the future. The Balance Sheet information in the next two pages represents assets and liabilities for health subsidy benefits only.

System liabilities equal the present value of all future health subsidy benefits expected to be paid to current and future retirees and beneficiaries of the System.

For the purpose of the Actuarial Balance Sheet for health subsidy benefits, System assets are equal to the sum of:

- the assets currently available to pay benefits,
- the present value of future contributions expected to be made by the City.

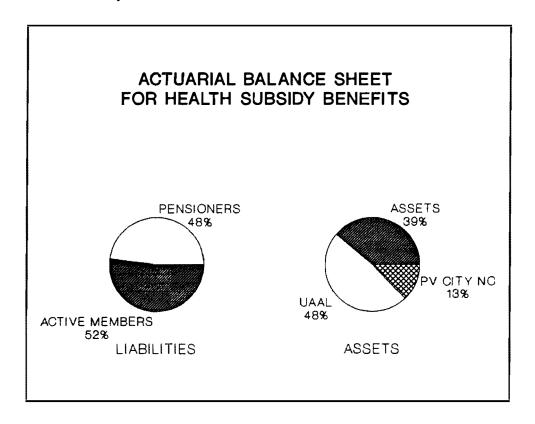
No Member contributions are required for health subsidy benefits.

The last item, the present value of future City contributions, is made up of two parts:

- 1. The Present Value of Future City Normal Costs: Using the Projected Unit Credit Cost Method, the City budgets a certain percentage of payroll to fund benefits for System Members. The Normal Cost is the cost of benefits earned in each year. Normal Cost is funded from a Member's date of employment to the average expected retirement date. For the 1994-1995 fiscal year, the normal cost percentage for health subsidy benefits is 1.01% of pay. The present value of these future City Normal Cost contributions represents one piece of the value of future City contributions.
- 2. The Unfunded Actuarial Accrued Liability: The portion of the present value of future City contributions which will not be funded by the future Normal Cost contributions is the Unfunded Actuarial Accrued Liability (UAAL). The UAAL arises from prior contributions that were less than the current Normal Cost percentage. This usually results from benefit or assumption changes and the net effect of prior gains and losses. If the City had always contributed the current Normal Cost, if there were no prior benefit or assumption changes and if actual experience exactly matched the actuarial assumptions, the Normal Cost would be sufficient to fund all health subsidy benefits and there would be no UAAL. This liability is funded based on the provisions of the City Charter.

The Actuarial Balance Sheet can be found on the following pages.

The following chart illustrates the breakdown of Balance Sheet assets and liabilities of the health subsidy benefits of the System. It shows that about 48% of the System's liabilities are for retired Members and their beneficiaries and 52% are for active Members with ten or more years of service. About 39% of the System's assets consist of currently available assets with 61% consisting of future contributions from the City.



Actuarial Balance Sheet As Of June 30, 1993

ASSETS			
1. Applicable Assets	\$221,430,921		
2. Present Value of Future Member Contributions	0		
3. Present Value of Future Contributions by the City:			
a. Normal Costs \$ 75,123,665 b. Amortization of Certain Liabilities 275,832,038 c. Total	\$350,955,703		
4. Total Assets	\$572,386,624		
LIABILITIES			
Present Value of Benefits Already Granted (Pensioners and Beneficiaries)	\$272,140,352		
6. Present Value of Benefits to be Granted (Actives With Ten or More Years of Service)	300,246,272		
7. Total Liabilities	\$572,386,624		

Recommended City Contribution For Fiscal year 1994-1995

Under Division 4, Chapter 11 of the Administration Code, certain retired employees are eligible for a health insurance premium subsidy. This subsidy is to be funded entirely by the City Employees' Retirement System.

The City is currently building reserves for, or advance funding, the Retiree Health Insurance Subsidy for current retirees and for active Members with sufficient service to receive a health subsidy (10 years). The actuarial value of the reserve available at June 30, 1993 is \$221,430,921. This reserve amount was calculated by the City as part of the asset information provided to us. The City provides the book value of the health subsidy reserve, which we use along with estimates of the market value, to determine the actuarial value used in funding calculations.

Based on this reserve, we have calculated the required funding amount for the fiscal year beginning July 1, 1994. The dollar amounts shown on the next page are based on total payroll at July 1, 1993, for illustrative purposes.

The contribution for health subsidy benefits decreased from 3.26% of payroll for 1993-1994 to 3.18% of payroll for 1994-1995 for the following reasons:

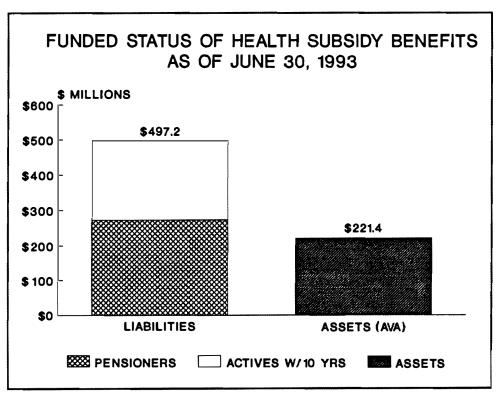
- We reduced the ultimate medical trend rate from 7% per year to 6% to better reflect our expectations of long term medical inflation.
- On average, health insurance premiums increased less than assumed since last year.
- Earnings on the health subsidy reserves exceeded the 8% assumed, resulting in an actuarial gain and a reduction in the required contribution.

Recommended City Contribution For Health Subsidy Benefits For Fiscal Year 1994-1995				
	Dollar Amount	Percent of Pay		
1. Normal Cost at June 30, 1993	\$ 9,081,972	1.01%		
2. Actuarial Accrued Liability at June 30, 1993	497,262,959	-		
3. Actuarial Value of Assets Available for Health Subsidy Benefits at June 30, 1993	221,430,921	-		
4. Unfunded Actuarial Accrued Liability (UAAL) (2) - (3)	275,832,038	-		
5. Amortization of UAAL				
 Initial Base as a Level Percent of Pay through June 30, 2004 	\$4,829,467	.54%		
- Change in Assumptions at 06/30/89	1,081,958	.12%		
- Change in Funding at 06/30/89	6,750,898	.75%		
- Actuarial Loss at 06/30/90	4,961,668	.55%		
- Actuarial Loss at 06/30/91	5,277,111	.59%		
- Actuarial Gain at 06/30/92	(2,217,389)	(.25%)		
- Change in Assumptions at 06/30/92	560,378	.06%		
- Actuarial Gain at 06/30/93	(812,953)	(.09%)		
- Change in Assumptions at 06/30/93	(858,983)	(.10%)		
Total	\$19,572,155	2.17%		
6. Recommended Contribution: (1) + (5)	\$28,654,127	3.18%		

Funded Status of Health Subsidy Benefits At June 30, 1993

This information is calculated using the guidelines of GASB No. 5 (see page 6). These figures do not include assets or liabilities of the retirement benefits of the System.

Present Value of Health Subsidy Benefits Accrued to June 30, 1993	
- Retired members	\$272,140,352
- Active members with Ten Years of Service	225,122,607
- Total	\$497,262,959
Value of Assets Available for Health Subsidy Benefits Market Actuarial	\$233,615,152 \$221,430,921
Funded Ratio Market Actuarial	47.0% 44.5%



CITY OF LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM VALUATION OF HEALTH SUBSIDY BENEFITS

Assumptions And Methods

It is our understanding that the City is phasing in the process of advance funding for the Health Insurance Premium Subsidy. A brief summary of this phase-in is as follows:

- The City began funding for these benefits when the health subsidy plan was first initiated, by commencing funding when a Member retired. However, this funding was limited below the actual cost, since the contributions were determined by recognizing only 3% annual increases in the subsidy due to medical trend.
- Beginning in 1987, the assumption for annual increases in the health insurance subsidy benefits was increased to 8% per year. Also, the City began advance funding for active Members who are eligible to retire.

Following the June 30, 1989 Study of Plan Experience, in order to fully reflect the cost of benefits due to expected inflation, the 8% medical trend rate assumption was changed to a series of medical trend rates that graded down from 15% in 1991 to 7% in 2002 and thereafter. The City also began advance funding for active members with sufficient service to receive a health subsidy (10 years).

Effective with the June 30, 1992 Study of Plan Experience, the medical and dental trend rates were updated. Separate rates were used for pre- and post-age 65 benefits to reflect the differences in cost increases after Medicare eligibility. Effective with this June 30, 1993 vacation, the ultimate trend rate has been reduced from 7% to 6% to better reflect our expectations of future medical inflation and utilization. For detail on these new trend rates, refer to Exhibit VII.

In valuing the liabilities of the health subsidy, we projected future cash flows by applying medical trend rates to current subsidy amounts. The current average monthly claim rates we used as the starting point for our projections depend on the experience of the plan and plan provisions. These rates are summarized in Exhibit VIII. To determine the present value of future health insurance subsidy benefits, we discounted future cash flows to June 30, 1993 using a valuation rate of 8%.

For the purpose of determining contributions, we have used the Projected Unit Credit Funding Method. Our assumptions and methods are described further in Exhibit VII.

Exhibits

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Exhibit X: Member Contributions

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Exhibit XII: Age/Benefit Distribution of Pensioners as of June 30, 1993

Exhibit XIII: Age/Average Monthly Health Subsidy Distribution as of June 30, 1993

System Assets (Book Value)								
	June 30, 1993	June 30, 1992						
ASSETS								
Cash	\$3,962,186	\$2,149,806						
Receivables Accrued Interest and Dividend Income Other Receivables Proceeds from Investment Total Receivables	32,080,000 4,618,637 <u>64,101,096</u> 100,799,733	35,810,646 4,106,528 <u>29,723,668</u> 69,640,842						
Investments Temporary, at Cost Bonds, at Amortized Cost Common Stocks, at Cost Real Estate Total Investments	397,096,309 1,406,802,839 1,562,584,604 	270,689,022 1,447,131,451 1,306,440,099 <u>114,892,960</u> 3,139,153,532						
Total Assets	3,576,245,796	3,210,944,180						
LIABILITIES								
Accounts Payable and Accrued Expenses	(130,687,742)	(30,213,284)						
NET ASSETS AVAILABLE FOR PLAN BENEFITS	\$3,445,558,054	\$3,180,730,896						

Statement Of Reserve And Fund Balance Accounts							
	June 30, 1993	June 30, 1992					
ACTUARIAL							
Member Contributions	\$528,587,809	\$491,743,910					
Annuities	336,251,990	326,584,680					
Basic Pensions	1,711,511,228	1,556,491,662					
Cost-of-Living	642,453,409	600,339,518					
Family Death Benefit Insurance	17,506,929	16,776,526					
Health Benefits	209,246,689	188,794,600					
Total Actuarial	\$3,445,558,054	\$3,180,730,896					
OTHER							
Undistributed Earnings	\$0	\$0					
Fund Balance	0	0					
Total Other	0	0					
TOTAL RESERVE AND FUND BALANCE	\$3,445,558,054	\$3,180,730,896					

Statement of Changes in Net Assets Available For Plan Benefits							
	Year Ended June 30, 1993	Year Ended June 30, 1992					
REVENUES							
City Contributions	\$170,545,108	\$164,867,033					
Members' Contributions	42,719,604	43,196,687					
Income from Investments Interest Earned Dividends Real Estate Total	115,242,498 42,436,448 <u>6,560,691</u> 164,239,637	143,716,677 32,509,779 <u>5,969,809</u> 182,196,265					
Total Revenues	\$377,504,349	\$390,259,985					
EXPENDITURES							
Pensions Retirement Allowances Family Death Benefit Insurance Health Benefits Total	\$175,012,342 559,076 <u>21,387,417</u> 196,958,835	\$162,882,617 593,041 <u>20,893,244</u> 184,368,902					
Refund of Members' Contributions	6,927,586	7,972,903					
Administrative Expenses	10,338,982	8,737,198					
Total Expenditures	\$214,225,403	\$201,079,003					
NET REVENUES	\$163,278,946	\$189,180,982					
CAPITAL GAIN ON INVESTMENTS SOLD	\$101,548,212	\$129,199,269					
NET REVENUES PLUS CAPITAL GAIN	\$264,827,158	\$318,380,251					
NET ASSETS AVAILABLE FOR PLAN BENEFITS, BEGINNING OF THE YEAR	\$3,180,730,896	\$2,862,350,645					
NET ASSETS AVAILABLE FOR PLAN BENEFITS, END OF THE YEAR	\$3,445,558,054	\$3,180,730,896					

Summary of Retirement Benefits

1. Eligibility:

Members are eligible on their first day of City

employment.

2. Final Compensation:

Highest 12-month average salary.

3. Service Retirement:

A) Eligibility:

Age 55 with 10 years of service, or any age with 30

years of service, or age 70.

B) Benefit:

2.16% of Final Compensation for each year of service.

C) Reduction for Early Retirement:

Beta Formula:

Unreduced for retirement after age 60, or after age 55

with at least 30 years of service. Reduction factors

apply for earlier retirement.

D) Form of Payment:

Benefit payable for life with 50% continuance to eligible

spouse if employee had that coverage at time of retirement. Larger continuances are available with

actuarial reduction.

4. Disability Retirement:

A) Eligibility:

Five years of continuous service and physically or mentally incapacitated so unable to perform duties of position.

B) Benefit:

1/70 of Final Compensation per year of continuous service. If service is less than 23-1/3 years, then service is projected to retirement, with a maximum service of 23-1/3 years.

C) Form of Payment:

Benefit payable for life with 50% continuance to eligible spouse if employee had this coverage at time of retirement.

5. Deferred Service Retirement:

A) Eligibility:

Five years of service prior to termination of City service. Member must leave contributions on deposit and apply in writing within three years of termination.

B) Benefit:

Same as Service Retirement payable anytime after age 55, provided at least 10 years have elapsed from date of original membership (or anytime after age 70).

C) Form of Payment:

Same as Service Retirement.

6. Pre-retirement Death Benefits:

A) Not Eligible for Disability or Service Retirement:

Members receives (i),(ii), and (iii) where:

- (i) = Accumulated contributions with interest.
- (ii) = Limited monthly pension equal to half the average monthly salary for the year before death. Benefit is payable to surviving spouse, minor children, or dependent parents, and is payable for a period of 2 months times the number of completed years of service, to a maximum of 12 months.
- (iii) = Family Death Benefit Insurance Plan benefit, if a qualified Member.

B) Eligible for Disability
Retirement or Duty-Related
Death:

Member receives (i) and (ii) where:

- (i) = 60% of the benefit the Member would have received if he or she had been granted a disability benefit on the day before death, payable for the lifetime of the Member's spouse.
- (ii) = Family Death Benefit Insurance Plan benefit, if a qualified Member.
- C) Eligible for Service Retirement:

Surviving spouse receives a lifetime benefit equal to 100% of the benefit the Member would have been entitled to if he or she had been granted an Option 1 (Joint and 100%) actuarially reduced Service Retirement benefit on the day before death.

Benefits under the Family Death Benefit Insurance Plan are not available.

Surviving spouse may elect A or B in lieu of C.

7. Post-retirement Death Benefits:

Members receives (i), (ii), and (iii), where:

- (i) = 50% continuance to surviving eligible spouse, if covered under the plan.
- (ii) = Return of unused contributions and interest (provided normal cash refund annuity was selected) and any accrued but unpaid retirement allowance.
- (iii) = \$500 death benefit allowance for burial expenses.
- 8. Post-retirement Cost-of-Living Benefits:

Each July 1, the benefits are increased by the percentage increase in CPI (to a maximum of 3%). Increases in CPI above 3% are "banked" to apply in years when CPI increase is less than 3%.

If benefit has been paid less than 12 months, the 3% increase is proportionately decreased.

9. Employee Contributions:

Pre-February, 1983 participants:

Members are assumed to contribute per the schedule effective July 1, 1981. To the extent that Members contribute less than the full rates, the City should contribute 78% of the amounts otherwise paid by the Member.

Post-January, 1983 participants:

Members contribute 6% of pay.

10. Family Death Benefit Insurance Plan:

A) Eligibility:

Employee may elect coverage after 18 months of City

retirement service.

B) Benefits:

Benefits similar to those provided by Social Security Survivors' Insurance are payable if Member dies in active service after 18 months of Family Death Benefit

Plan membership.

C) Cost:

It is recommended that the Member and City each

contribute \$2.90 per month.

Summary of Health Subsidy Benefits

ligibility:	Members who retire with ten years of service.	Subsidy
	begins at age 55.	

Subsidy: Medical

For retired Members under age 65 or 65 and over with only Medicare Part B:

A percentage of the Maximum Subsidy, or the actual premium paid to a City approved health carrier, if less.

The percentage is 4% for each year of service, up to a maximum of 100% after 25 years.

Maximum Subsidy: The maximum is the rate currently paid for active City employees. As of July 1, 1993, this amount is \$472 per month.

For retired Members age 65 and over with Medicare Parts A and B:

A percentage of the premium paid to a City approved health carrier. The percentage is 75% with 10 - 14 years of service, 90% for 15-19 years of service and 100% for 20 years of service or more. Medicare Part B premiums are also paid.

Dental

4% per year of service to a maximum of \$28.24 for Connecticut General and \$9.64 for Safeguard.

Summary of Actuarial Assumptions And Methods Used For Valuation Of Retirement Benefits

Interest Rate: 8.0% per year.

Salary Increases: Salaries for individuals and the total System payroll are

assumed to increase 6.0% per year.

Cost-of-Living: 3.0% per year.

Mortality:

A. For Pensioners on Service Retirement and Beneficiaries

1971 Group Annuity Mortality Table, with a one year setback for males and a five year setback for females

Sample Rates

	Deaths per 1,000							
Age	Males	Females						
45	2.6	1.6						
50	4.7	2.9						
55	7.8	5.3						
60	11.9	8.5						
65	19.2	13.1						
70	32.4	21.3						
75	51.2	36.1						

B. For Pensioners on Disability Retirement:

1981 Disability Mortality Table

Sample Rates

Age	Deaths per 1,000
45	20.8
50	24.4
55	28.4
60	33.0
65	37.9
70	43.7
75	55.3

Rehire for Former Employees:

All former employees are assumed not to be rehired.

Dependents:

Where no other information is available, Members are assumed to have two children with a three year difference in age. The eldest is assumed to reach age 21 when the participant reaches age 45.

Proportion of Members with Spouses at Retirement:

75% of male employees and 55% of female employees are assumed married at retirement. Wives are assumed four years younger than husbands.

Funding Method:

For retirement benefits: The Projected Unit Credit Cost Method.

For the Family Death Benefit Insurance Plan: One year term cost funding method.

Asset Valuation Method:

An asset value equal to the average of book and market values was used in determining annual funding requirements.

Summary Of Actuarial Assumptions And Methods Used For Valuation Of Health Subsidy Benefits

Methods: Future cash flows were projected by applying medical

trend rate factors to current annual claim rates. The prefunding of these cash flows is determined using the

Projected Unit Credit Funding Method.

Discount on Projected Cash Flows: 8% per year.

Medical Trend Rates:

	Medica		
Year	Pre-65	Dental Inflation	
1993-1994	13.0%	11.5%	11.5%
1994-1995	12.0%	11.0%	11.0%
1995-1996	11.5%	10.5%	10.5%
1996-1997	11.0%	10.0%	10.0%
1997-1998	10.5%	9.5%	9.5%
1998-1999	10.0%	9.0%	9.0%
1999-2000	9.5%	8.5%	8.5%
2000-2001	9.0%	8.0%	8.0%
2001-2002	8.5%	7.5%	7.5%
2002-2003	8.0%	7.25%	7.25%
2003-2004	7.5%	7.0%	7.0%
2004-2005	7.0%	6.75%	6.75%
2005-2006	6.75%	6.50%	6.50%
2006-2007	6.50%	6.25%	6.25%
2007-2008	6.25%	6.00%	6.00%
2008+	6.0%	6.00%	6.00%

Medicare Premium Inflation Rate:

Year	Increase
1993-1994	\$38.85*
1994-1995	\$43.60*
1995-1996	8.25%
1996-1997	8.00%
1997-1998	7.75%
1998-1999	7.50%
1999-2000	7.25%
2000-2001	7.00%
2001-2002	6.75%
2002-2003	6.50%
2003-2004	6.25%
2004+	6.00%

^{*} A blended rate of the actual 1993, 1994, and 1995 Medicare Part B premium rates.

Mortality:

1971 Group Annuity Mortality Table, with a one year age setback for males and a five year age setback for females.

Probability of Termination of Employment:

Same rates as used in valuation of retirement benefits. See retirement report for details.

City Medical Plan Coverage:

80% of all retirees are assumed to receive a subsidy for a City approved health carrier.

Spouses and Dependent:

90% of male and 65% of female retirees who receive a subsidy are assumed to be married and elect dependent coverage.

Medicare Coverage:

85% of retirees are assumed to elect Medicare Parts A & B.

Dental Coverage:

65% of retirees are assumed to elect dental coverage.

Funding Method:

Projected Unit Credit Cost Method.

Asset Valuation Method:

An asset value equal to the average of book and market values was used in determining annual funding requirements.

Average Monthly Subsidy Rates For Health Subsidy Benefits Premium Per Month Per Year of Service (Maximum 25 Years) Medical Less Than Age 65 or Age 65 and Over Without Medicare Parts A & B **Married Male** \$16.01 Single Male 12.27 Married Female 15.61 Single Female 13.79 Age 65 and Over with Medicare Parts A & B Married Male 8.40 Single Male 7.32 Married Female 7.46 6.93 Single Female 0.93 **Dental**

Rates Of Separation From Active Service

A schedule of the probabilities of termination of employment due to the following causes can be found on the following pages:

Ordinary Withdrawal: Member terminates and elects a refund of Member

contributions.

2. Service Retirement: Member retires after meeting age and service

requirements for reasons other than disability.

3. Ordinary Disability: Member receives disability retirement; disability is not

service related.

4. Service Disability: None assumed.

5. Ordinary Death: Member dies before eligibility for retirement; death is

not service related.

6. Service Death: None assumed.

7. Death While Eligible

for Service Retirement: Member dies before retirement but after meeting age

and service requirements for service retirement.

Each rate represents the probability that a Member will separate from service at each age due to the particular cause. For example, a rate of 0.0020 for a Member's service retirement at age 50 means we assume that, on average, 2 out of 1,000 Members who are age 50 will retire at that age.

RATES OF SEPARATION FROM ACTIVE SERVICE

	ORDINARY	WITHDRAWAL	SERVICE	RETIREMENT	ORDINARY	DISABILITY	ORDINAR	V DEATH	DEATH ELIG FOR
AGE	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	SVC RET
20	0 2000	0 1500	0 0000	0.0000	0.0000	0.0000	0.0000		
20	0.2900	0. 1500	0.0000	0.0000	0.0000	0.0000	0.0003	0.0002	0.0000
21	0.2549	0.1440	0.0000 0.0000	0.0000 0.0000	0.0000	0.0000	0.0003	0.0002	0.0000
22	0.2240	0.1382			0.0000	0.0000	0.0003	0.0002	0.0000
23	0.1969	0.1327	0.0000 0.0000	0.0000	0.0000	0.0000	0.0003	0.0002	0.0000
24	0.1731	0.1274		0.0000	0.0000	0.0000	0.0003	0.0002	0.0000
25 26	0.1521	0.1223	0.0000	0.0000	0.0002	0.0000	0.0004	0.0003	0.0000
	0.1404	0.1159	0.0000	0.0000	0.0002	0.0000	0.0004	0.0003	0.0000
27	0.1296	0.1098	0.0000	0.0000	0.0003	0.0000	0.0005	0.0004	0.0000
28	0.1197	0.1040	0.0000	0.0000	0.0004	0.0000	0.0005	0.0004	0.0000
29	0.1105	0.0986	0.0000 0.0000	0.0000 0.0000	0.0005	0.0000	0.0006	0.0005	0.0000
30	0.1020	0.0934 0.0879	0.0000	0.0000	0.0006 0.0008	0.0001	0.0006	0.0005	0.0000
31	0.0946					0.0001	0.0006	0.0006	0.0000
32	0.0877	0.0827	0.0000	0.0000	0.0009	0.0001	0.0007	0.0006	0.0000
33	0.0813	0.0779	0.0000 0.0000	0.0000 0.0000	0.0010	0.0001	0.0007	0.0006	0.0000
34 35	0.0754	0.0733			0.0011	0.0001	0.0008	0.0007	0.0000
35	0.0699	0.0690	0.0000	0.0000	0.0013	0.0002	0.0008	0.0007	0.0000
36	0.0654	0.0671	0.0000	0.0000	0.0014	0.0002	0.0009	0.0008	0.0000
37	0.0611	0.0652	0.0000 0.0000	0.0000	0.0015	0.0002	0.0010	0.0008	0.0000
38	0.0572	0.0634	0.0000	0.0000 0.0000	0.0016	0.0003	0.0010	0.0009	0.0000
39	0.0535 0.0500	0.0617 0.0600		0.0000	0.0017 0.0018	0.0003	0.0011	0.0010	0.0000
40			0.0000			0.0004	0.0012	0.0010	0.0000
41	0.0480	0.0580	0.0000	0.0000	0.0018	0.0005	0.0014	0.0011	0.0000
42	0.0450	0.0560	0.0000	0.0000	0.0019	0.0006	0.0014	0.0012	0.0000
43	0.0430	0.0540 0.0520	0.0000 0.0000	0.0000 .0.0000	0.0019	0.0008	0.0015	0.0012	0.0000
44	0.0400				0.0020	0.0010	0.0016	0.0013	0.0000
45 46	0.0380	0.0500 0.0480	0.0000 0.0000	0.0000 0.0000	0.0020 0.0021	0.0012	0.0017	0.0014	0.0000
46 47	0.0360 0.0340	0.0460	0.0000	0.0000	0.0021	0.0014 0.0014	0.0018	0.0014	0.0000
48	0.0340	0.0460	0.0000	0.0000	0.0021		0.0019	0.0015	0.0000
46 49	0.0320	0.0440	0.0000	0.0000	0.0022	0.0016	0.0021	0.0016	0.0000
50		0.0420	0.0020	0.0010	0.0022	0.0018 0.0020	0.0022	0.0017	0.0000
50 51	0.0280 0.0270	0.0380	0.0030	0.0022	0.0023	0.0020	0.0023	0.0018	0.0000
52	0.0250	0.0360	0.0040	0.0022	0.0023	0.0024	0.0025 0.0027	0.0019	0.0000
53	0.0240	0.0340	0.0055	0.0040	0.0023	0.0028	0.0027	0.0021	0.0000
54	0.0220	0.0330	0.0035	0.0007	0.0023			0.0022	0.0000
5 5	0.0210	0.0330	0.0235	0.0635	0.0023	0.0036	0.0030	0.0024	0.0000
56	0.0210	0.0320	0.0945	0.0035	0.0024	0.0040 0.0040	0.0032	0.0026	0.0021
50 57	0.0205	0.0320	0.0785	0.0288	0.0024	0.0040	0.00 34 0.00 3 6	0.0029	0.0024
58	0.0205	0.0320	0.0900	0.0313	0.0024	0.0040	0.0036	0.0031	0.0026
59	0.0205	0.0320	0.1000	0.0581	0.0024	0.0040		0.0034	0.0029
60	0.0203	0.0325	0.1935	0.1654	0.0024	0.0040	0.0041 0.0044	0.0038	0.0032
61	0.0210	0.0325	0.1933	0.0984	0.0024	0.0000	0.0050	0.0042	0.0035
62	0.0215	0.0325	0.1500	0.1118	0.0024	0.0000	0.0055	0.0046 0.0052	0.00 39 0.0043
63	0.0230	0.0335	0.1680	0.1118	0.0025	0.0000	0.0055	0.0052	0.0043
64	0.0240	0.0340	0.2125	0.1341	0.0025	0.0000	0.0067	0.0056	0.0048
65	0.0000	0.0000	0.3500	0.2240	0.0000	0.0000	0.0074	0.0053	0.0059
66	0.0000	0.0000	0.2240	0.1520	0.0000	0.0000	0.0082	0.0084	0.0059
67	0.0000	0.0000	0.2240	0.1650	0.0000	0.0000	0.0090	0.0097	0.0003
68	0.0000	0.0000	0.2240	0.1920	0.0000	0.0000	0.0098	0.0111	0.0078
69	0.0000	0.0000	0.2500	0.2500	0.0000	0.0000	0.0106	0.0127	0.0086
70	0.0000	0.0000	1.0000	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Contribution Rates Assumed For Members Participating Before February 1, 1983

Age	Normal	Survivor	Total	
16	8.00%	0.22%	8.22%	
17	8.04	0.28	8.32	
18	8.08	0.33	8.41	
19	8.14	0.39	8.53	
20	8.20	0.44	8.64	
21	8.27	0.48	8.75	
22	8.34	0.53	8.87	
23	8.42	0.56	8.98	
24	8.50	0.60	9.10	
25	8.58	0.63	9.21	
26	8.66	0.66	9.32	
27	8.75	0.68	9.43	
28	8.86	0.70	9.56	
29	8.96	0.72	9.68	
30	9.06	0.75	9.81	
31	9.17	0.77	9.94	
32	9.28	0.79	10.07	
33	9.40	0.81	10.21	
34	9.50	0.82	10.32	
35	9.61	0.83	10.44	
36	9.73	0.85	10.58	
37	9.84	0.86	10.70	
38	9.96	0.87	10.83	
39	10.07	0.90	10.97	
			,	

Age	Normal	Survivor	Total
40	10.19%	0.91%	11.10%
41	10.29	0.92	11.21
42	10.41	0.93	11.34
43	10.52	0.94	11.46
44	10.64	0.95	11.59
45	10.76	0.97	11.73
46	10.89	0.98	11.87
47	11.01	0.99	12.00
48	11.12	1.00	12.12
49	11.24	1.01	12.25
50	11.34	1.03	12.37
51	11.44	1.05	12.49
52	11.55	1.06	12.61
53	11.65	1.07	12.72
54	11.75	1.08	12.83
55	11.85	1.09	12.94
56	11.94	1.10	13.04
57	12.03	1.12	13.15
58	12.13	1.13	13.24
59 - Over	12.19	1.14	13.33

Total is applicable only to employees whose Normal and Survivor Rates are assigned by the same age.

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM AGE/SERVICE/SALARY DISTRIBUTION BY ATTAINED AGE FOR ACTIVE MEMBERS AS OF JUNE 30, 1993

SERVICE

EXHIBIT XI

ATTAINED AGE	<u>0 - 1</u>	1 - 2	2 - 3	3 - 4	4 - 5	<u>5 - 9</u>	10 - 14	<u>15 - 19</u>	20 - 24	<u>25 - 29</u>	<u>30 - 34</u>	OVER 34	TOTAL
UNDER 25	115	108	90	101	67	23	0	0	0	0	0	0	504
AVERAGE SALARY	19,513	27,612	26,620	28,600	29,050	27,798	0	0		0	0	0	25,985
25 - 29 AVERAGE SALARY	153 25,626	237 31,790	260 33,026	494 34,087	451 34,223	6 96 33,210	16 33, 191	0	0	0 0	0 0	0 0	2307 32,926
30 - 34 AVERAGE SALARY	137 26,889	173 31,302	218 33,357	500 36,027	504 36, 076	1527 39,041	480 36,911	12 37,559	0 0	0	0	0 0	3551 36,708
35 - 39	93	154	168	372	356	1324	710	356	18	0	0	0	3551
AVERAGE SALARY	30,228	33,882	35,402	36,643	37,575	41,167	40,044	38,223	38,648		0	0	38,926
40 - 44 AVERAGE SALARY	80 29,784	120 35,002	133 35,775	257 36,687	273 36,938	1010 40,450	652 41,539	698 43,977	483 42,128	15 40,133	0	0	3721 40,429
45 - 49	48	80	96	165	180	694	430	546	842	278	18	0	3377
AVERAGE SALARY	35,097	31,630	33,267	36,751	35,990	40,609	42,709	46,577	48,834	49,446	44,186		43,704
50 - 54	30	57	68	124	103	401	283	302	482	502	170	10	2532
AVERAGE SALARY	24,717	27,381	33,040	34,497	40,282	39,290	42,626	44,137	46,233	50,031	49,947	44,942	43,627
55 - 59	21	25	44	57	67	277	175	192	306	333	153	59	1709
AVERAGE SALARY	24,475	23,708	24,435	32,168	37,314	40,127	40,778	42,222	43,161	46, 126	50,685	48,767	42,172
60 - 64	13	22	29	26	27	142	88	137	155	131	106	53	929
AVERAGE SALARY	31,601	17,649	20,748	27,199	34,362	39,023	41,698	40,284	39,693	44,091	52,824	55,941	41,182
OVER 64	11	21	45	18	16	88	63	86	107	68	27	46	596
AVERAGE SALARY	15,974	9,544	10,074	26,361	29,057	37,061	37,844	40,480	42,116	41,291	45,027	49,847	36,441
TOTAL	701	997	1151	2114	2044	6182	2897	2329	2393	1327	474	168	22777
AVERAGE SALARY	26,490	30,714	31,738	35,079	35,981	39,240	40,518	43,203	45,262	47,782	50,330	51,098	39,433

AVERAGE AGE: 42.7 AVERAGE SERVICE: 11.2

EXHIBIT XII

DISTRIBUTION OF PENSIONERS BY PLAN YEAR OF RETIREMENT AND BY ATTAINED AGE AS OF JUNE 30, 1993

TOTAL FOR ALL PENSIONERS

RETIREMENT BENEFITS

Retirements in Plan Year Beginning in

ATTAINED AGE	RELITEMENTS IN FLAN LEAF DEGITATING IN																
	PRE 1979	<u>1979</u>	1980	<u>1981</u>	1982	1983	1984	1985	1986	1987	1988	1989	<u>1990</u>	<u>1991</u>	1992	TOTAL	AVERAGE AMOUNT
0 - 39	2	2	4	1	2	1	1	5	6	3	7	13	11	24	30	112	8,454
40 - 44	9	9	9	7	7	8	9	4	10	7	12	7	8	12	8	126	9,792
45 - 49	34	6	11	6	10	6	4	11	7	7	7	7	9	11	9	145	9,559
50 - 54	57	19	10	12	7	11	11	8	14	10	23	22	7	21	69	301	12,930
55 - 59	61	19	17	16	13	20	17	18	11	66	123	143	144	158	161	987	21,055
60 - 64	126	21	35	44	87	123	137	123	177	165	139	163	133	127	134	1734	19,775
65 - 69	392	122	125	140	258	224	177	150	179	143	161	110	87	98	77	2443	18,426
70 - 74	889	182	191	206	184	163	147	76	98	82	50	45	32	21	42	2408	15,808
75 - 79	1092	124	93	93	60	43	42	27	24	12	9	3	5	4	8	1639	12,920
80 - 84	915	26	18	21	14	7	3	5	1	3	3	5	2	0	2	1025	9,886
85 - 89	496	0	2	0	0	1	0	1	1	0	0	0	1	0	0	502	8,695
90 - 94	202	0	0	0	0	0	0	0	1	0	0	0	0	0	0	203	7,607
OVER 95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	4275	530	515	546	642	607	548	428	529	498	534	518	439	476	540	11,641	

AVERAGE 10,574 13,854 13,605 15,378 18,685 18,163 18,389 17,993 19,146 19,936 19,803 20,661 21,617 21,784 23,872 BENEFIT AMOUNT

AVERAGE BENEFIT AMOUNT: \$15,740 TOTAL ANNUAL BENEFITS: \$183,233,760

EXHIBIT XIII

MONTHLY

DISTRIBUTION OF PENSIONERS BY PLAN YEAR OF RETIREMENT AND BY ATTAINED AGE AS OF JUNE 30, 1993

TOTAL FOR ALL PENSIONERS

HEALTH SUBSIDY BENEFITS

ATTAINED	Retirements in Plan Year Beginning in														AVERAGE HEALTH		
AGE	1979	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	1988	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	TOTAL	SUBSIDY
0 - 39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 - 44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45 - 49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50 - 54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55 - 59	11	1	8	4	4	4	2	4	1	4	57	102	100	118	146	566	363
60 - 64	19	2	8	10	4	47	91	79	121	150	114	135	116	127	116	1139	353
65 - 69	90	57	70	7 5	193	166	131	116	151	121	142	97	86	76	65	1636	204
70 - 74	395	113	137	148	175	141	137	76	102	84	55	38	30	31	31	1693	170
75 - 79	646	104	77	85	56	53	40	20	19	18	7	6	1	4	11	1147	157
80 - 84	489	23	17	19	13	7	2	5	2	3	5	2	2	0	1	590	160
85 - 89	268	2	1	0	2	0	0	1	0	1	0	1	0	0	0	276	179
90 - 94	102	0	0	0	0	0	0	0	0	0	0	0	0	0	0	102	151
OVER 95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	2020	302	318	341	447	418	403	301	396	381	380	381	335	356	370	7149	
MONTHLY AVERAGE HEALTH	172	164	177	182	196	204	226	224	239	253	261	293	298	308	302		

AVERAGE MONTHLY HEALTH SUBSIDY: \$219 TOTAL MONTHLY HEALTH SUBSIDY: \$1,572,341

SUBSIDY