

**THE LOS ANGELES CITY  
EMPLOYEES' RETIREMENT SYSTEM  
ANNUAL ACTUARIAL VALUATION  
June 30, 2001**



Submitted to  
BOARD OF ADMINISTRATION

The Los Angeles City Employees' Retirement System

June 30, 2001 Actuarial Valuation

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**GABRIEL, ROEDER, SMITH & COMPANY**  
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November 7, 2001

Board of Administration  
 City Employees' Retirement System  
 360 East Second Street, 8<sup>th</sup> Floor  
 Los Angeles, CA 90012

Members of the Board:

Results of the regular Annual Actuarial Valuation as of June 30, 2001 of The Los Angeles City Employees' Retirement System are summarized. The valuation is intended to provide a measure of the funding status of the retirement system and health subsidy benefits. This valuation forms the basis for the City contribution rates for the year beginning July 1, 2002 and updates our report issued on October 18, 2001.

<b>Contributions</b>	<b>Retirement</b>	<b>Health</b>
Normal Costs	8.56%	2.54%
Unfunded Amortization	(4.72)%	(0.56)%
<b>TOTAL</b>	<b>3.84%</b>	<b>1.98%</b>

The member statistical data on which the valuation was based was furnished by LACERS, together with pertinent data on financial operations. Data was reviewed for reasonableness, but was not audited by the actuary.

There was an overall actuarial gain of \$72.1 million, which reflects 1.0% of related actuarial accrued liabilities as of June 30, 2000.

The cooperation of LACERS in furnishing materials requested for this valuation is deeply acknowledged with appreciation.

Respectfully submitted,

GABRIEL, ROEDER, SMITH & COMPANY

*Rick Roeder*

Rick A. Roeder, E.A., F.S.A., M.A.A.A.

Los Angeles City Employees' Retirement System

Summary of Significant Valuation Results

	<u>June 30, 2001</u>	<u>June 30, 2000</u>	<u>Percent Change</u>
I. Total Membership			
A. Active Members	25,654	24,234	5.9%
B. Pensioners	13,365	13,058	2.4%
II. Salaries at June 30			
A. Total Annual Payroll	\$1,293,350,061	\$1,182,202,945	9.4%
B. Average Monthly Salary	\$4,201	\$4,065	3.3%
III. Benefits to Current Pensioners and Beneficiaries			
A. Total Annual Benefits	\$316,057,216	\$290,899,998	8.6%
B. Average Monthly Benefit Amount	\$1,971	\$1,856	6.2%
IV. Total System Assets (Actuarial Value)	\$7,853,296,534	\$7,389,277,187	6.3%
V. Unfunded Actuarial Accrued Liability/(Surplus)			
A. Retirement Benefits	(\$520,716,053)	(\$548,434,115)	5.1%
B. Health Subsidy Benefits	(\$37,079,192)	\$43,762,962	N/A
VI. Budget Items	FY 2002-2003	FY 2001-2002	
A. Retirement Benefits			
1. Normal Cost as a Percent of Pay	8.56%	7.57%	13.1%
2. Amortization of Unfunded Actuarial Accrued Liability	(4.72%)	(5.03%)	6.2%
3. Total Retirement Contribution	3.84%	2.54%	51.2%
B. Health Subsidy Contribution, as a Percent of Pay	1.98%	2.17%	(8.8%)
C. Total Contribution (A+B)	5.82%	4.71%	23.6%
VII. Funded Ratio (Based on Actuarial Value of Assets)			
A. Retirement Benefits	108.1%	109.1%	(0.9%)
B. Health Subsidy Benefits	104.6%	94.9%	10.2%
C. Total (Based on Market Value of Assets)	107.7%	107.3%	0.4%
D. Retirement Benefits	100.8%	116.4%	(13.4%)
E. Health Subsidy Benefits	97.6%	101.2%	(3.6%)
F. Total	100.4%	114.5%	(12.3%)

**FINANCIAL PRINCIPLES  
AND  
OPERATIONAL TECHNIQUES**

Los Angeles City Employees' Retirement System  
**Financial Principles and Operational Techniques**

Promises Made, and To Be Paid For. As each year is completed, the Retirement System in effect hands an "IOU" to each member then acquiring a year of service credit – the "IOU" says: "The Los Angeles City Employees' Retirement System owes you one year's worth of retirement benefits, payments in cash commencing when you qualify for retirement."

The related key financial questions are:

Which generation of taxpayers contributes the money to cover the IOU?

The present taxpayers, who receive the benefit of the member's present year of service?

Or the future taxpayers, who happen to be in Los Angeles City at the time the IOU becomes a cash demand, years and decades later?

The principle of level percent of payroll financing intends that this year's taxpayers contribute the money to cover the IOUs being handed out this year. By following this principle, the employer contribution rate will remain approximately level from generation to generation (after funding of the system's initial unfunded liability is addressed) – our children and our grandchildren will contribute the same percents of active payroll we contribute now.

(There are systems which have a design for deferring contributions to future taxpayers, lured by a lower contribution rate now and putting aside the consequence that the contribution rate must then relentlessly grow much greater over decades of time.)

An inevitable by-product of the level-cost design is the accumulation of reserve assets, for decades, and income produced when the assets are invested. Invested assets are a by-product and not the objective. Investment income becomes, in effect, the 3<sup>rd</sup> contributor for benefits to employees, and is interlocked with the contribution amounts required from employees and employer.

(Concluded on next page)

Los Angeles City Employees' Retirement System  
**Financial Principles and Operational Techniques**

(Concluded)

Translated to actuarial terminology, this level-cost objective means that the contribution rates must total at least the following:

Current Cost (the cost of members' service being rendered this year) . . .

plus. . .

Interest on Unfunded Accrued Liabilities (unfunded accrued liabilities are the difference between (i) liabilities for service already rendered and (ii) the accrued assets of the plan).

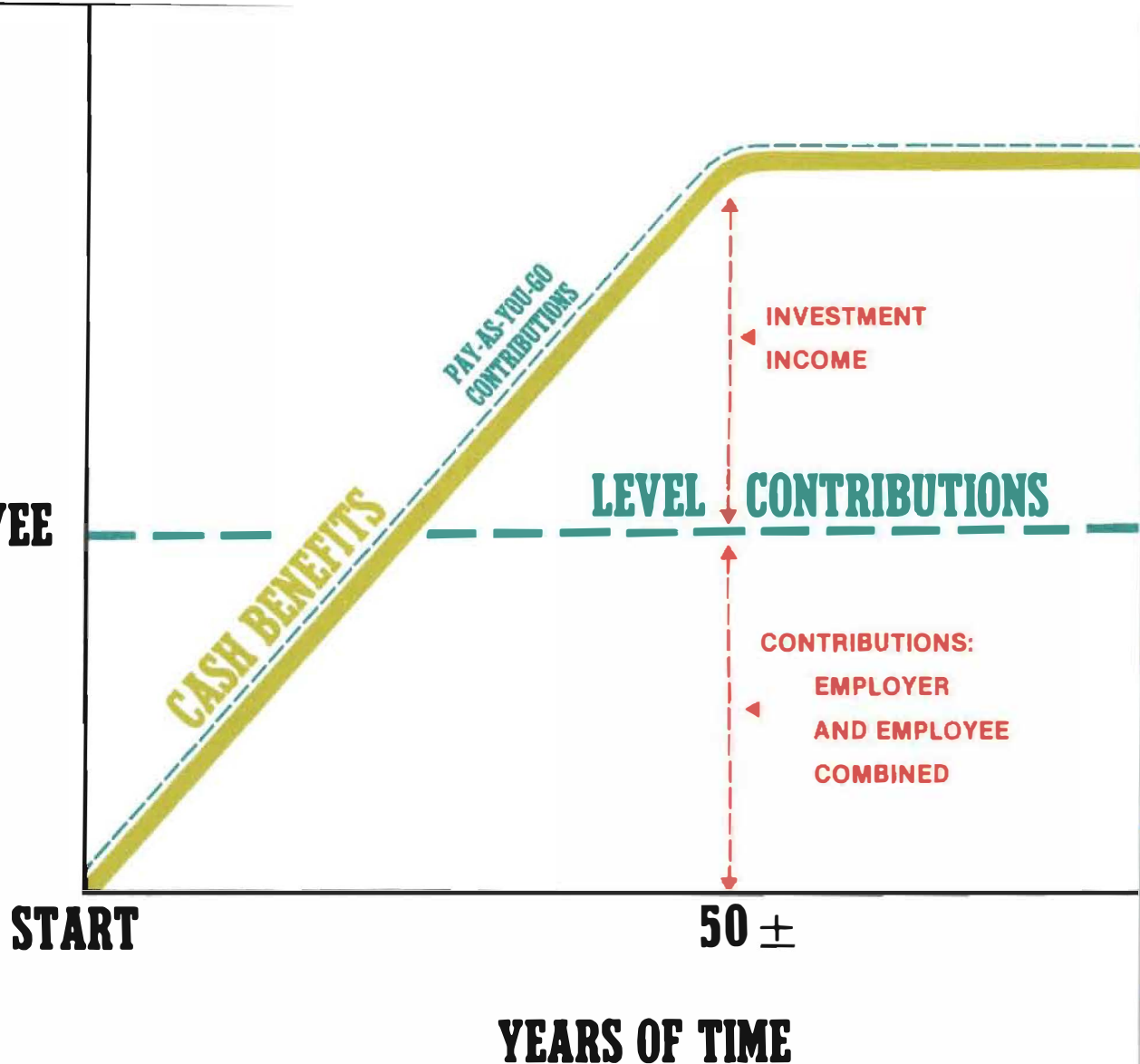
Computing Contributions To Support System Benefits. From a given schedule of benefits and from the employee data and asset data furnished, the actuary determines the contribution rates to support the benefits, by means of an actuarial valuation and a funding method.

An actuarial valuation has a number of ingredients such as: the rate of investment return which plan assets will earn; rates of withdrawal of active members who leave covered employment; rates of mortality; rates of disability; rates of pay increases; and the assumed age or ages at actual retirement. In an actuarial valuation assumptions must be made as to what the above rates will be, for the next year and for decades in the future. Only the subsequent actual experience of the plan can indicate the degree of accuracy of the assumptions.

Reconciling Differences Between Assumed Experience and Actual Experience. Once actual experience has occurred and been observed, it will not coincide exactly with assumed experience, regardless of the wisdom behind the various financial assumptions or the skill of the actuary and the millions of calculations made. The future can be predicted with considerable but not complete precision, except for inflation which defies reliable prediction.

The System copes with these continually changing differences by having annual actuarial valuations. Each actuarial valuation is a complete recalculation of assumed future experience, taking into account all past differences between assumed and actual experience. The result is continual adjustments in the computed employer contribution rates.

**% OF  
ACTIVE  
EMPLOYEE  
PAYS**



**CASH BENEFITS LINE.** This relentlessly increasing line is the fundamental reality of retirement plan financing. It happens each time a new benefit is added for future retirements (and happens regardless of the design for contributing for benefits).

**LEVEL CONTRIBUTION LINE.** Determining the level contribution line requires detailed assumptions concerning a variety of experiences in future decades, including:

**Economic Risk Areas**

Rates of investment return

Rates of pay increase

Changes in active member group size

**Non-Economic Risk Areas**

Ages at actual retirement

Rates of mortality

Rates of withdrawal of active members (turnover)

Rates of disability



## THE ACTUARIAL VALUATION PROCESS

The financing diagram on the opposite page shows the relationship between the two fundamentally different philosophies of paying for retirement benefits: the method where contributions match cash benefit payments (or barely exceed cash benefit payments, as in the Federal Social Security program) which is an increasing contribution method; and the level contribution method which equalizes contributions between the generations.

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The actuarial valuation is the mathematical process by which the level contribution rate is determined. The flow of activity constituting the valuation may be summarized as follows:

A. Covered people data, furnished by LACERS, including:

Retired lives now receiving benefits

Former employees with vested benefits not yet payable

Active employees

B. + Asset data (cash & investments), furnished by LACERS

C. + Assumptions concerning future experience in various risk areas, which are established by the Board after consulting with the actuary

D. + The funding method for employer contributions (the long-term, planned pattern for employer contributions)

E. + Mathematically combining the assumptions, the funding method, and the data

F. = Determination of:

Plan Financial Position and/or

Employer's New Contribution Rate

**VALUATION RESULTS  
&  
COMMENTS**

Los Angeles City Employees' Retirement System

June 30, 2001

**FUNDING OBJECTIVE**

The funding objective of the Retirement System is to establish and receive contributions, expressed as percents of active member payroll, which will remain approximately level from year to year and will not have to be increased for future generations of citizens.

**CONTRIBUTION RATES**

LACERS is supported by member contributions, City contributions, and investment income from Fund assets.

Contributions which satisfy the funding objective are determined by the annual actuarial valuation and are intended to:

1. cover the actuarial present value of benefits allocated to the current year by the actuarial cost method (the normal cost); and
2. finance over a period of future years the actuarial present value of benefits not covered by valuation assets and anticipated future normal costs (unfunded actuarial accrued liability).

Computed contributions for the fiscal year beginning July 1, 2002 are shown on the following pages.

Los Angeles City Employees' Retirement System

**Computed Contribution Rates**

(Expressed as Percents of Active Payroll)

Valuation Date	<u>Retirement</u>		<u>Health Subsidy</u>	
	<u>2001</u>	<u>2000</u>	<u>2001</u>	<u>2000</u>
Applying to Fiscal Year	2002-03	2001-02	2002-03	2001-02
Normal Cost	8.56%	7.57%	2.54%	2.15%
UAAL Amortization	(4.72)%	(5.03)%	(0.56)	0.02
<b>Total City Contribution</b>	<b>3.84%</b>	<b>2.54%</b>	<b>1.98%</b>	<b>2.17%</b>

The above contributions are **exclusive** of applicable "picked up" employee contributions and assume contributions are made, on average, mid-year.

Ongoing unfunded actuarial accrued liabilities (UAAL) are a byproduct of actuarial gains and losses, as well as benefit, assumption and methodology changes. Each valuation generates an actuarial gain (loss) for each group valued. Each year's gain (loss) is amortized over fifteen years. Liability changes due to assumption changes and most benefit increases have been amortized over thirty years. Amortization is expressed as a percent-of-payroll and added to (or subtracted from) computed normal costs.

**CALIFORNIA**  
**Los Angeles**

Los Angeles City Employees' Retirement System  
Computed Contribution Rates – Retirement Benefits

June 30, 2001

(Expressed as Percents of Active Payroll)

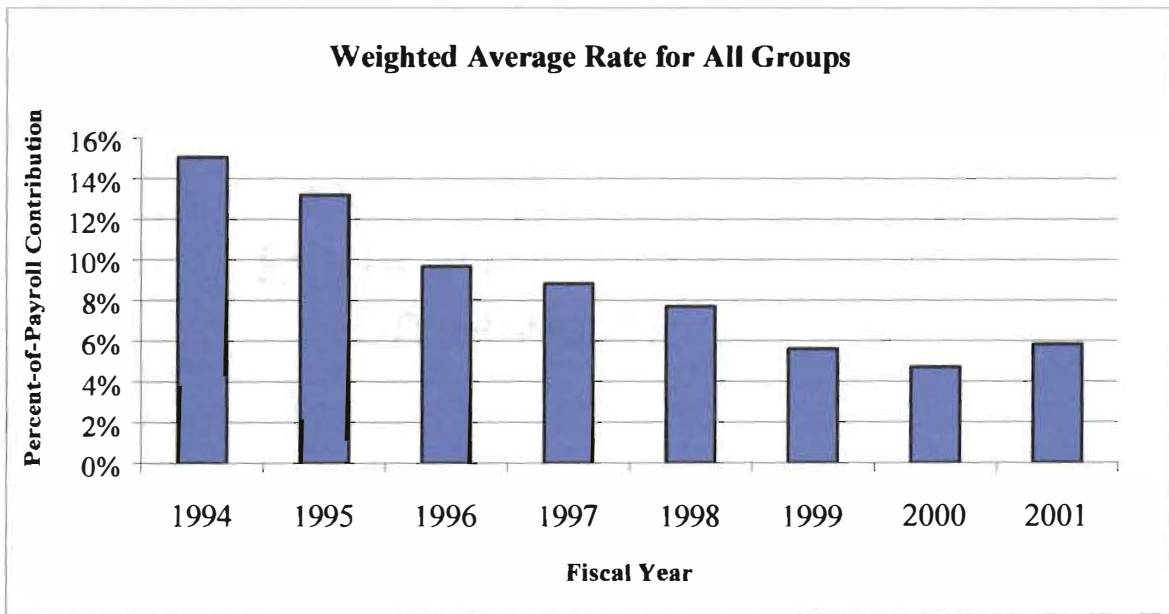
Elements of Normal Cost

Normal Retirement	11.81%
Vested Deferred Retirement	2.29
Death-In-Service <sup>1</sup>	0.33
Disability <sup>1</sup>	0.48
Contribution Refunds	<u>0.25</u>
<b>Total Normal Cost</b>	<b>15.16%</b>
Less	
Employee Contributions <sup>2</sup>	<u>6.60</u>
Equals	
<b>Employer Normal Cost</b>	<b>8.56%</b>

- 1 These figures could be viewed as overstated, and Normal Retirement figures understated, since, in many cases, an active member, who dies or becomes disabled will have significant service credit accrued and may be eligible for service retirement at time of disability or death benefit grant.
- 2 Shown employee contributions will be reduced by applicable employee pick ups. Pick ups (aka, "defrayals") averaged 6.59% for pre-1983 hires, as a percentage of present value of future payroll. The City takes a 5% discount on pick ups to reflect anticipated savings from refunds. We recommend that such discount be reduced to 3%.

Los Angeles City Employees' Retirement System  
**Computed Contributions – Historic Comparison**

Valuation Date	Retirement	Health	Total	Valuation Payroll (thousands)
6/30/94	12.07%	2.99%	15.06%	\$884,951
6/30/95	7.34%	2.30%	9.64%	\$911,292
6/30/96	6.51%	3.18%	9.69%	\$957,423
6/30/97	6.57%	1.85%	8.42%	\$990,616
6/30/98	6.43%	1.27%	7.70%	\$1,011,857
6/30/99	4.93%	0.67%	5.60%	\$1,068,124
6/30/00	2.54%	2.17%	4.71%	\$1,182,203
6/30/01	3.84%	1.98%	5.82%	\$1,293,350



Los Angeles City Employees' Retirement System  
**Member Contributions as of June 30, 2001**

In addition to City contributions, LACERS is also funded by member contributions. The rate is 6% for those hired after January 1, 1983. For other members, the contribution is expressed as a percent of pay and varies according to age of entry into the system. For pre-1983 members, contributions are picked up by the City. Picked up contributions are nonrefundable to members.

Please refer to the Appendix for a detailed list of these rates. The City takes a 5% discount on pick ups to reflect anticipated savings from refunds. We recommend this discount be reduced to 3% to reflect the aging of this closed group.

	(Percents of Pay)	
	<u>All Active Members</u>	
	<u>2000</u>	<u>2001</u>
Overall employee contribution rate	6.70%	6.60%
	<u>Pre-January 1, 1983 Active Members</u>	
Weighted gross rate	Unknown	9.26%
Weighted rate after pick up	Unknown	2.67%

Los Angeles City Employees' Retirement System

**Unfunded Actuarial Accrued Liability**

June 30, 2001

Derivation of Experience Gain (Loss)

The actuarial gains or losses realized in the operation of LACERS provide an experience test. Gains and losses are expected to cancel each other over a period of years and sizable year-to-year fluctuations are common. Numbers are in thousands.

	<u>Retirement</u>	<u>Health</u>
(1) UAAL* at beginning of year	(\$548,434,115)	\$43,762,962
(2) Contribution toward UAAL	(\$59,458,369)	\$192,999
(3) Interest Accrual: (1) * .08	(\$43,874,729)	\$3,501,037
(4) Expected UAAL at the end of year (1) - (2) + (3)	(\$532,850,475)	\$47,071,000
(5) Actual End of Year UAAL	(\$520,716,053)	(\$37,079,192)
(6) (Gain)/Loss	\$12,134,422	(\$84,150,192)
(7) (Gain)/Loss as percentage actuarial accrued liabilities at beginning of year	0.2%	(9.9)%

\* Unfunded actuarial accrued liability



Los Angeles City Employees' Retirement System  
**Gain/Loss on Unfunded Accrued Liability**

**Components of Actuarial Loss for the Valuation Ending June 30, 2001**

Estimated (Gain)/Loss attributed to pay increases	\$16,539,000
Estimated (Gain)/Loss attributed to refined deferred vested liability data	\$15,535,000
Estimated (Gain)/Loss attributed to post-retirement mortality	\$19,417,000
Estimated (Gain)/Loss attributed to employee turnover, pre-retirement mortality, retirement incidence, and miscellaneous factors	\$31,234,000
Estimated (Gain)/Loss attributed to investment experience	<u>(\$70,591,000)</u>
Total Estimated Experience (Gain)/Loss	\$12,134,000

**Unfunded Actuarial Accrued Liability**

Total actuarial accrued liabilities	\$6,468,065,894
Assets allocated to funding	<u>6,988,781,947</u>
Unfunded Actuarial Accrued Liability	(\$520,716,053)

Los Angeles City Employees' Retirement System  
**Detail of Amortization of Unfunded Actuarial Accrued Liability**

**Retirement Benefits**

<u>Item</u>	Years <u>Left</u>	Remaining Balance <u>6/30/01</u>	Amortization <u>Amount</u>
Combined Bases at 6/30/97	11	\$66,594,511	\$7,542,479
Gain at 6/30/98	12	(339,565,890)	(35,876,942)
Change in Assumptions at 6/98	27	238,152,227	14,340,601
Gain at 6/30/99	13	(181,205,091)	(17,982,617)
Plan Change at 6/30/99	28	22,645,325	1,335,671
Change in Assumptions @ 6/99	28	(9,899,167)	(583,875)
Gain at 6/30/00	14	(329,572,390)	(30,899,463)
Loss at 6/30/01	15	<u>12,134,422</u>	<u>1,080,208</u>
Total		\$ (520,716,053)	\$(61,043,938)

**Health Subsidy**

<u>Item</u>	Years <u>Left</u>	Remaining Balance <u>6/30/01</u>	Amortization <u>Amount</u>
Combined Bases at 6/30/97	11	\$49,945,554	\$5,656,822
Gain at 6/30/98	12	(104,409,643)	(11,031,434)
Change in Assumptions at 6/98	27	47,553,636	2,863,495
Gain at 6/30/99	13	(101,047,056)	(10,027,811)
Plan Change at 6/30/99	28	3,297,811	194,512
Change in Assumptions @ 6/00	29	47,064,534	2,722,252
Gain at 6/30/00	14	104,666,166	9,813,105
Gain at 6/30/01	15	<u>(84,150,192)</u>	<u>(7,491,063)</u>
Total		\$(37,079,191)	\$(7,300,123)

**Funding Progress Indicators**

June 30, 2001

There is no single all-encompassing indicator which measures a retirement system's funding progress and current funded status. A traditional measure has been the relationship of valuation assets to unfunded actuarial accrued liability – a measure that is influenced by the choice of actuarial cost method.

We believe a better understanding of funding progress and status can be achieved using the following indicators which are independent of the actuarial cost method.

1. The ratio of valuation assets to the actuarial present value of credited projected benefits allocated in the proportion accrued service is to projected total service – a plan continuation indicator.
2. The ratio of the unfunded actuarial present value of credited projected benefits to member payroll – a plan continuation indicator. In a soundly financed retirement system, the amount of the unfunded actuarial present value of credited projected benefits will be controlled and prevented from increasing in the absence of benefit improvements or strengthening of actuarial assumptions. However, in an inflationary environment it is seldom practical to impose this control on dollar amounts which are depreciating in value. The ratio is a relative index of condition where inflation is present in both items. The ratio is expected to decrease in the absence of benefit improvements or strengthening of actuarial assumptions.

Los Angeles City Employees' Retirement System  
**Funding Progress Indicators – Historic Comparison**

(\$ in Thousands)

**Retirement**

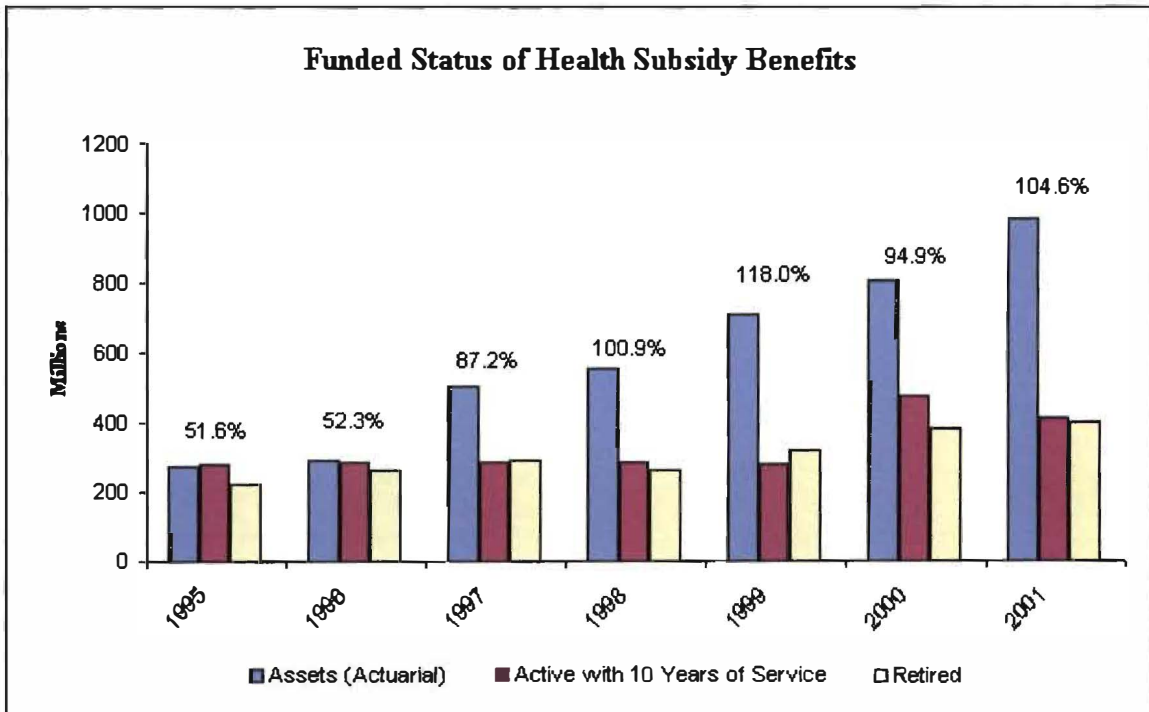
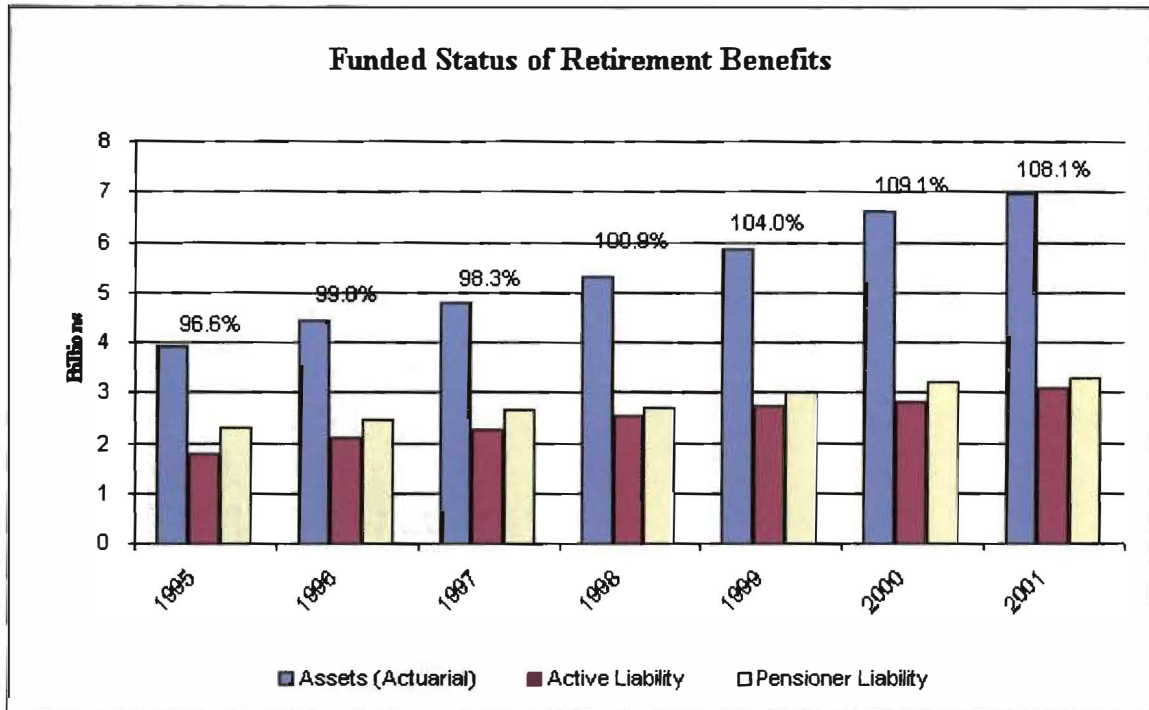
<u>Valuation Date</u>	<u>Valuation Assets</u>	<u>Actuarial Accrued Liability</u>	<u>Unfunded AAL</u>	<u>Funded Ratio</u>	<u>Member Payroll</u>	<u>UAAL Ratio to Payroll</u>
6/30/99	\$5,910,948	\$5,684,586	(\$226,362)	104.0%	\$1,068,124	(21.2)%
6/30/00	6,561,365	6,012,931	(548,434)	109.1	1,182,203	(46.4)
6/30/01	6,988,782	6,468,066	(520,716)	108.1	1,293,350	(40.3)

**Health Subsidy**

<u>Valuation Date<sup>1</sup></u>	<u>Valuation Assets</u>	<u>Actuarial Accrued Liability</u>	<u>Unfunded AAL</u>	<u>Funded Ratio</u>	<u>Member Payroll</u>	<u>UAAL Ratio to Payroll</u>
6/30/99	\$724,429	\$614,093	(\$110,336)	118.0%	\$1,068,124	(10.3)%
6/30/00 <sup>1</sup>	810,303	854,066	43,763	94.9	1,182,203	3.7
6/30/01	844,984	807,905	(37,079)	104.6	1,293,350	(2.9)

<sup>1</sup> Reflects significant increase in maximum benefits

# Los Angeles City Employees' Retirement System



Los Angeles City Employees' Retirement System

Actuarial Balance Sheet – June 30, 2001

(\$ in Thousands)

**Present Resources and Expected Future Resources**

	<u>Retirement</u>	<u>Health</u>	<u>Total</u>
A. Actuarial value of system assets	\$6,988,782	\$844,984	\$7,833,766 <sup>2</sup>
B. Present value of expected future contributions			
1. For normal costs for present actives <sup>1</sup>	916,245	271,877	\$1,188,122
2. For unfunded actuarial accrued liability	<u>(520,716)</u>	<u>(37,079)</u>	<u>(\$557,795)</u>
3. Totals	395,529	234,798	\$630,327
C. Present value of expected future member contributions <sup>1</sup>	<u>706,451</u>	<u>0</u>	<u>\$706,451</u>
D. Total Present and Expected Future Resources	\$8,090,762	\$1,079,782	\$9,170,544

**Present Value of Expected Future Benefit Payments and Reserve**

A. To retirants and beneficiaries	\$3,388,875	\$386,724	\$3,775,599
B. To vested terminated members	55,365	12,068	\$67,433
C. To present active members			
1. Allocated to service rendered prior to valuation date	3,023,826	409,113	\$3,432,939
2. Allocated to service likely to be rendered after valuation date	<u>1,622,696</u>	<u>271,877</u>	<u>\$1,894,573</u>
3. Totals	4,646,522	680,990	\$5,327,512
D. Total Present Value of Expected Future Benefit Payments	\$8,090,762	\$1,079,782	\$9,170,544

<sup>1</sup> Prior to any employer pick-up contributions.

<sup>2</sup> This excludes Family Death Benefit Insurance Reserve.

**Family Death Benefit Insurance**

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 \$3.20 per month. This contribution rate is reviewed every two years to determine if the level of contributions is appropriate.

In our opinion, a contribution of \$3.46 per month from Members and the City would be sufficient to fund benefits under this plan. This rate will be next reviewed on June 30, 2003.

Los Angeles City Employees' Retirement System

Comments & Recommendations

June 30, 2001

**COMMENT A:** The overall City contribution rate increased from 4.71% to 5.82%. Our original report indicated that the rate was 5.77%. Staff discovered an inconsistency in the manner in which the amortization dollar amounts (correctly calculated) for the Health Subsidy was applied to valuation payroll. We apologize for the error. We had changed methodology from what was done in the previous valuation and had not updated the previous approach for the Health Subsidy.

The Retirement contribution increased from 2.54% to 3.84%. This was attributable to an increase in the normal cost rate. Please see Comment D in this regard.

The portion of the contribution related to the Health Subsidy decreased from 2.17% to 1.98%. The reasons for the decrease were three-fold:

- 1) The investment actuarial gain also favorably impacted health assets.
- 2) The valued dollar maximum was unchanged from \$702 per month
- 3) The medical inflation trend rates are slightly lower than last year

**COMMENT B:** The overall actuarial loss for retirement benefits was negligible, \$12.1 million. There was an actuarial gain of 84.2 million for retiree health. The overall actuarial gain of \$72.1 million is attributable to an investment actuarial gain(!) of \$79.3 million. Such gain appears counterintuitive due to the investment returns far lower than the 8% investment assumption. The June 30, 2001 market value of assets was \$980 million less than the value if the 8% assumption was met on a market-to-market basis. The combination of LACERS' asset smoothing methodology over five years and substantial unrecognized previous gains account for this seeming anomaly. However, the chickens will soon come home to roost if current investment trends continue. The actuarial value of assets is now \$528 million in excess of the market value of assets.

Put another way, a substantial portion of benefits earned in the current year by members ("normal cost") are being paid by excellent investment earnings in previous years. If such past excesses no longer exist next year, the payment of the normal cost would represent a significant contribution increase from the rates reflected in this valuation.

**COMMENT C:** The funded ratio for retirement benefits decreased slightly from 109.1% to 108.1%. The funded ratio for the health subsidy has increased from 94.9% to 104.6%.

**COMMENT D:** The sum of active member contribution balances from the data tape as of June 30, 2001 is \$846.3 million. The sum for all vested deferred members is \$27.4 million. These two sums are slightly less than the Member Deposit Reserve balance of \$890 million. The \$16.3 million difference may be due to unlocated members.

**COMMENT E:** To ease transition issues, the assumptions we used were virtually identical to those used by Watson Wyatt in the 2000 valuation. Nonetheless, there were a number of transition matters in this valuation (which, from our past experience, is not unusual).



Los Angeles City Employees' Retirement System

Comments & Recommendations

June 30, 2001

(Continued)

The deferred vested liability went up significantly from 29.5 to 52.7 million this year. We attribute this to data refinements. We discovered numerous instances where the amounts in the pay categories seemed unreasonably low. We calculate the amount of the anticipated deferred vested benefit based on final average pay (except for about 50 participants with who we are provided calculated benefits) At our request, LACERS staff provided us with updated pay information. Last year, Watson Wyatt used raw data provided and used estimates for 3.5% of the members (many of whom were deferred vested).

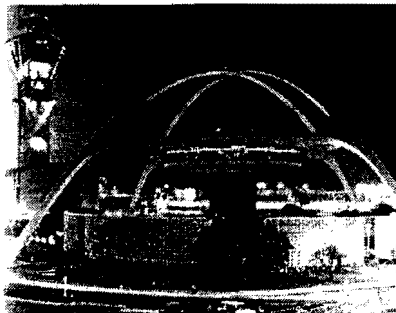
We have adjusted the approach to amortized gains and losses. There was a timing issue. The amortization credit of 5.03% in the 2000 Watson Wyatt report is reflected as a percentage of pay as of June 30, 2000 but the first amortization payment is not calculated to be made under June 30, 2001. We have made this approach more consistent with what we believe is appropriate methodology for level-percent-of-pay financing.

There was a methodology difference on the calculation of normal cost accrual rates. The GRS rates provided in this report take the sum of active member normal costs and divide by actual anticipated payroll for this group in the coming year (including factors such as anticipated employee turnover and pay increases during the year) to develop a rate. The Watson Wyatt approach was based on each member of the valuation having contributions made on their behalf for the entire year.

**COMMENT F:** There has been one interesting demographic development for active members over the past two years. There has been a significant decrease in credited years of service for active members from 13.1 years to 11.8 years. This is a likely byproduct of the current window for subsidized early retirement program which will only last one more year.

**COMMENT G:** We recommend that the discount for pick ups (aka, "defrayals") be reduced from 5% to 3% due to the aging of this closed group of actives with entry age-based employee contribution rates.

**COMMENT H:** The Retirement System continues to be in outstanding financial condition in accordance with the actuarial principles of level-cost financing.



**SUMMARY OF BENEFIT PROVISIONS**

**&**

**VALUATION DATA SUBMITTED BY RETIREMENT SYSTEM**

Los Angeles City Employees' Retirement System  
Brief Summary of Benefit Provisions Evaluated

Effective June 30, 2001

1. Membership Requirements – First day of employment.

2. Final Compensation for Benefit Determination

Highest consecutive twelve months of compensation earnable

3. Service Requirement

A. Eligibility: Age 55 with 10 years of service, or age 70 regardless of service, or after 30 years, regardless of age

B. Benefit Formula Per Year of Service

Unreduced: 2.16% of Final Compensation

Reduced: For retirement ages below age 60 (age 55 for those with 30+ Years of Service). (age 50 with 30 Years of Service until 10/1/2002)

<u>Age</u>	<u>Reduction</u>	<u>Age</u>	<u>Reduction</u>
50	22.5%	55	7.5%
51	19.5	56	6.0
52	16.5	57	4.5
53	13.5	58	3.0
54	10.5	59	1.5

C. Maximum Benefit – 100% of Final Average Compensation

(Continued on Next Page)

Los Angeles City Employees' Retirement System

**Brief Summary of Benefit Provisions Evaluated**

Effective June 30, 2001

(Continued)

4. Ordinary Disability

A. Eligibility – Five years of continuous service.

B. Benefit Formula –  $1/70^{\text{th}}$  of Final Compensation for each year of service (including projected years to age 65), subject to a maximum of  $23 \frac{1}{3}$  years or  $1/3$  of Final Compensation, or  $1/70^{\text{th}}$  of Final Compensation for each year of service. The midrange benefit is selected.

5. Death

A. Eligibility – None.

B. Benefit – Refund of employee contributions with interest plus two months' of final compensation for each year of service to a maximum of six years

or

A1. Eligibility – Duty-related death or if qualified for Disability Retirement

Benefit – Accrued Joint & 100% disability survivor benefit to Qualified Surviving Spouse or Domestic Partner.

In either case, applicable Family Death Insurance Benefits will also be paid.

or

A2. Eligibility – Qualified for Service Retirement.

B2. Benefit – Accrued Joint and 100% survivor benefit to Qualified Surviving Spouse or Domestic Partner.

(Continued on Next Page)

Los Angeles City Employees' Retirement System  
Brief Summary of Benefit Provisions Evaluated

Effective June 30, 2001

(Continued)

6. Death After Retirement

A. Service or Disability Retirement

- 50% of member's unmodified allowance continued to eligible spouse or domestic partner or modified continuance selected by the member at the time of retirement.
- \$2,500 lump sum benefit payable to member's beneficiary
- If applicable, return of any unused employee contributions and interest

7. Withdrawal Benefits

A. Less than Five Years of Service

Refund of accumulated employee contributions with interest.

B. Five or More Years of Service

If contributions left on deposit, entitled to earned benefits commencing at any time after eligible to retire. The benefit payable is the same as Service Retirement, except that there must be at least ten years elapsed from original membership (unless the member has attained age 70).

8. Post-retirement Cost-of-Living Benefits

Each July 1, benefits are increased by a maximum of 3% based on increases in the local CPI.

9. City Contributions

Determined by Projected Unit Credit cost method with funding of each year's actuarial gain (loss) spread as a level percent of payroll over 15 years. Liability changes due to benefit and assumption changes are amortized over 30 years.

(Concluded on Next Page)

Los Angeles City Employees' Retirement System  
**Brief Summary of Benefit Provisions Evaluated**  
Effective June 30, 2001

(Concluded)

10. Member Contributions

6% of pay for post-January 1, 1983 hires. Please refer to Appendix A for entry-age based rates for earlier hires.

NOTE: The summary of major plan provisions is designed to outline principal plan benefits. If the City should find the plan summary not in accordance with the actual provisions, the City should alert the actuary so they can both be sure the proper provisions are valued.



## Valuation of Health Subsidy Benefits

### Introduction

Division 4, Chapter 11 of the Administrative Code provides that a health insurance subsidy be paid to retired Members of the Los Angeles 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 LACERS. In general, members are eligible for subsidy at retirement after age 55 with 10 years of service, or retirement at age 70 (if it was compulsory). 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, 2001 is \$844,983,700 (the market value is \$788,174,306).

This section of the report contains the results of the June 30, 2001 valuation of the retiree health insurance premium subsidy. In determining the budget amounts for the fiscal year 2002-2003, 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 health cost trend assumptions were used. A summary of the economic assumptions follows:

- 8.0% annual interest
- graded medical cost trend of 8.25% in 2001-2002 decreasing gradually to 6.0% in 2010 and beyond for benefits paid before age 65, and benefits paid to members without Medicare
- medical cost trend rates of 14.00% in 2001-2002 decreasing gradually to 6.00% in 2014 and beyond for benefits paid after age 65 from System HMO plans
- graded medical cost trend rates of 9.5%, decreasing gradually to 6.00% in 2014 and beyond for benefits paid after age 65 for Members who join the PPO.
- graded dental trend rates of 7.75% in 2001-2002 decreasing to 6.0% in 2008 and beyond
- Medicare Part B premium trend rates of 6.0%

These assumptions are the same as used last year in the valuation of health subsidy liabilities of the Los Angeles City Employees' Retirement System at June 30, 2001.

Los Angeles City Employees' Retirement System

**Summary of Health Subsidy Benefits**

**Eligibility:** Members who retire with ten years of service. Subsidy begins at age 55. Medical benefits are available to an eligible spouse or domestic partner after the death of the eligible Member.

**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, 2001, this amount is \$702 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.

For eligible surviving spouse or domestic partners:

The same subsidy provided to the Member, except this benefit is limited to the Kaiser single party premium for Members without Medicare A and B.

Dental

4% per year of service to a maximum of the premium for Blue Cross PPO or Safeguard (HMO).



Los Angeles City Employees' Retirement System

Summary of Reported Asset Information

Submitted for the June 30, 2001 Valuation

(in thousands)

Reported Market Value of Assets		Reserves	
Cash/Short-term	\$591,726	Member Deposit Reserve	\$889,658
Receivables	216,829	Basic Pension Reserve	5,190,178
Stocks	4,158,266	Family Death Benefit Reserve	18,218
Bonds	1,623,466	Annuity Reserve	439,081
Real Estate	343,800	Health Benefits Reserve	788,174
Mortgages	415,781		
Miscellaneous	354,677	Total Reserves	\$7,325,309
Total Market Value	\$7,704,545		
Liabilities	\$379,236		
Net Market Value	\$7,325,309		

Revenues and Disbursements Among Applicable Reserves

<b>Balance – Beginning of year</b>	<b>\$7,881,497</b>
Revenues	
Employees' contributions	69,276
Employer contributions	67,384
Defrayal	20,513
Family Death Benefit Premium	184
Distributed & undistributed investment income	(330,600)
<b>Total Revenues</b>	<b>(173,243)</b>
Disbursements	
Benefit payments and refunds	321,393
Health & Dental Insurance	31,576
Medicare Reimbursement	2,893
Miscellaneous	166
Administrative & Investment Expense	26,917
<b>Total Disbursements</b>	<b>382,945</b>
<b>Balance – End of year</b>	<b>7,325,309</b>

Los Angeles City Employees' Retirement System

Derivation of Actuarial Value of Assets

	Year Ending			
	<u>June 30, 2001</u>	<u>June 30, 2000</u>	<u>June 30, 1999</u>	<u>June 30, 1998</u>
1. Beginning of Year Market Value	\$7,881,497,296	\$7,279,063,114	\$6,600,702,384	\$6,069,797,808
2. Contributions	157,356,785	171,189,588	171,927,161	175,522,533
3. Benefit Payments	355,862,157	331,798,058	300,252,155	278,253,761
4. Expected Return Based on 8%	622,579,569	575,900,710	522,923,191	481,474,576
5. Expected End of Year Market Value	8,305,571,493	7,694,355,354	6,995,300,581	6,448,541,156
6. Actual End of Year Market Value	7,325,308,818	7,881,497,296	7,279,063,114	6,600,702,384
7. Gain/(Loss)	(980,262,675)	187,141,942	283,762,533	152,161,228
1. Market Value at June 30, 2001				\$7,325,308,818
2001 (Gain)/Loss x 80%				784,210,140
2000 (Gain)/Loss x 60%				(112,285,165)
1999 (Gain)/Loss x 40%				(113,505,013)
1998 (Gain)/Loss x 20%				(30,432,246)
2. Actuarial Value at June 30, 2001				7,853,296,534
3. 80% of Market Value at June 30, 2001				5,860,247,054
4. 120% of Market Value at June 30, 2001				8,790,370,582
5. Actuarial Value at June 30, 2001				
(2), but no less than (3) and no more than (4)				7,853,296,534

Los Angeles City Employees' Retirement System  
Actuarial Value of Assets

In deriving the actuarial value of assets for retirement benefit for the 2001 valuation, we use the asset-smoothing technique as illustrated on the previous page. Assets allocated to the Retiree Health Subsidy and Family Death Benefit Insurance are subtracted.

	<u>Market Value</u>	<u>Actuarial Value</u>
1. Total Value of Assets at June 30, 2001	\$7,325,308,818	\$7,853,296,534
2. Less Reserves and Liabilities Established for:		
a. Family Death Benefit Insurance	18,217,799	19,530,887
b. Retiree Health Subsidy	788,174,306	844,983,700
c. Total	806,392,105	864,514,587
3. Net Assets Available for Retirement Benefits at June 30, 2001 (Item 1 less Item 2)	\$6,518,916,713	\$6,988,781,947

Here is a summary of assets as of the past valuation dates in thousands:

	<u>2001</u>	<u>2000</u>	<u>1999</u>
1. Market Value	\$7,325,309	\$7,881,497	\$7,279,063
2. Gross Actuarial Value	7,853,297	7,389,277	6,653,175
3. Family Death Benefit Insurance	19,531	17,609	17,798
4. Retiree Health Subsidy	844,984	810,303	724,429
5. Net Actuarial Value for Retirement: (2) – (3) – (4)	\$6,988,782	\$6,561,365	\$5,910,948

Los Angeles City Employees' Retirement System  
**Distribution of Pensioners by Plan Year of Retirement and by Attained Age as of June 30, 2001**  
 Total for All Pensioners  
 Retirement Benefits

Year Retired	Age Groups													Total
	Under 40	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-89	90-94	94 +	
Pre-1985	2	3	18	56	86	126	180	625	1,256	1,400	837	382	98	5,069
1985	0	0	3	7	9	12	21	116	127	57	15	1	0	368
1986	0	0	7	9	8	15	41	159	135	74	9	1	1	459
1987	1	2	3	9	10	13	70	143	131	52	4	0	0	438
1988	0	0	6	12	13	20	115	127	121	29	6	2	0	451
1989	1	3	8	10	11	26	132	157	82	27	3	0	0	460
1990	1	3	6	7	11	11	138	119	71	15	2	2	0	386
1991	1	5	10	9	18	30	147	104	68	16	1	0	0	409
1992	1	4	7	4	7	73	149	113	59	25	5	0	0	447
1993	5	1	6	11	16	108	133	112	48	15	3	2	0	460
1994	5	9	17	14	14	147	127	77	30	10	1	0	1	452
1995	7	8	11	22	24	172	126	90	26	20	2	0	0	508
1996	4	8	6	10	132	218	115	68	33	2	3	0	0	599
1997	6	9	15	37	186	172	165	69	24	12	1	0	0	696
1998	8	8	12	49	194	144	96	51	24	5	1	1	0	593
1999	6	7	7	77	243	182	118	65	52	26	8	3	0	794
2000	4	7	12	87	230	173	101	53	55	27	24	1	2	776
<b>TOTAL</b>	<b>52</b>	<b>77</b>	<b>154</b>	<b>430</b>	<b>1,212</b>	<b>1,642</b>	<b>1,974</b>	<b>2,248</b>	<b>2,342</b>	<b>1,812</b>	<b>925</b>	<b>395</b>	<b>102</b>	<b>13,365</b>

Age at Retirement: 59.0  
 Attained Age: 71.5  
 Annual Pension: \$23,648

Los Angeles City Employees' Retirement System  
Active Members  
By Attained Ages and Years of Service

Age Group	Years of Service to Valuation Date												Total	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35 +		
15-19 NO.	13	0	0	0	0	0	0	0	0	0	0	0	0	13
TOT PAY	204,095	0	0	0	0	0	0	0	0	0	0	0	0	204,095
AVG PAY	15,700	0	0	0	0	0	0	0	0	0	0	0	0	15,700
20-24 NO.	362	142	39	16	8	0	0	0	0	0	0	0	0	567
TOT PAY	9,934,908	4,426,195	1,337,366	559,686	291,304	0	0	0	0	0	0	0	0	16,549,459
AVG PAY	27,444	31,170	34,291	34,980	36,413	0	0	0	0	0	0	0	0	29,188
25-29 NO.	590	443	242	118	87	97	4	0	0	0	0	0	0	1,581
TOT PAY	19,527,643	16,708,852	9,973,815	4,761,679	3,945,753	4,419,085	188,386	0	0	0	0	0	0	59,525,213
AVG PAY	33,098	37,717	41,214	40,353	45,353	45,558	47,096	0	0	0	0	0	0	37,650
30-34 NO.	505	442	310	188	183	561	477	15	0	0	0	0	0	2,681
TOT PAY	17,586,936	17,956,954	13,216,985	8,279,616	8,393,825	30,174,363	23,761,377	653,266	0	0	0	0	0	120,023,321
AVG PAY	34,826	40,627	42,635	44,041	45,868	53,787	49,814	43,551	0	0	0	0	0	44,768
35-39 NO.	450	382	251	159	149	599	1,466	440	31	0	0	0	0	3,927
TOT PAY	16,264,796	15,863,074	10,797,515	7,551,901	7,056,129	3,148,265	80,280,470	22,508,575	1,457,997	0	0	0	0	192,828,722
AVG PAY	36,144	41,526	43,016	47,496	47,357	51,833	54,762	51,156	47,032	0	0	0	0	49,103
40-44 NO.	353	300	236	148	101	484	1,361	996	411	6	0	0	0	4,396
TOT PAY	12,871,612	13,079,283	10,104,986	6,505,102	4,969,686	24,853,162	75,312,368	58,043,338	22,142,997	304,138	0	0	0	228,186,669
AVG PAY	36,463	43,598	42,818	43,953	49,205	51,350	55,336	58,276	53,876	50,690	0	0	0	51,908
45-49 NO.	293	239	157	84	80	395	1,047	810	660	398	29	0	0	4,192
TOT PAY	10,814,430	9,848,131	7,436,934	3,698,586	3,662,867	20,986,922	57,830,366	46,766,086	38,229,344	21,964,361	1,563,954	0	0	222,801,982
AVG PAY	36,909	41,206	47,369	44,031	45,786	53,131	55,234	57,736	57,923	55,187	53,929	0	0	53,149
50-54 NO.	223	162	140	81	68	281	707	555	560	735	367	7	0	3,886
TOT PAY	8,046,217	6,697,210	6,424,972	3,354,877	3,117,525	13,990,052	39,156,308	31,148,618	33,491,811	45,982,142	22,803,947	434,470	0	214,648,148
AVG PAY	36,082	41,341	45,893	41,418	45,846	49,787	55,384	56,124	59,807	62,561	62,136	62,067	0	55,236
55-59 NO.	120	105	78	57	38	159	442	358	289	367	383	99	0	2,495
TOT PAY	4,312,478	4,394,717	3,453,595	2,051,360	1,670,205	7,532,242	23,503,006	19,546,374	17,171,027	23,477,234	27,539,973	6,729,698	0	141,381,908
AVG PAY	35,937	41,854	44,277	35,989	43,953	47,373	53,174	54,599	59,415	63,971	71,906	67,977	0	56,666
60-64 NO.	55	39	30	24	21	104	242	195	146	152	127	96	0	1,231
TOT PAY	1,855,908	1,168,405	1,076,893	979,663	885,491	4,170,009	12,683,842	10,380,036	8,024,297	8,583,221	8,173,216	6,676,717	0	64,657,699
AVG PAY	33,744	29,959	35,896	40,819	42,166	40,096	52,413	53,231	54,961	56,469	64,356	69,549	0	52,525
65-99 NO.	37	19	11	13	8	86	130	101	93	75	53	59	0	685
TOT PAY	978,602	439,622	368,866	322,616	267,677	2,358,772	6,850,776	5,332,400	5,035,992	3,934,974	2,892,731	3,759,916	0	32,542,944
AVG PAY	26,449	23,138	33,533	24,817	33,460	27,428	52,698	52,796	54,150	52,466	54,580	63,727	0	47,508
TOT NO.	3,001	2,273	1,494	888	743	2,766	5,876	3,470	2,190	1,733	959	261	0	25,654
TOTAMT	102,397,624	90,582,442	64,191,927	38,065,087	34,260,461	139,532,873	319,566,899	194,378,694	125,553,464	104,246,069	62,973,821	7,600,801	0	1,293,350,161
AVG AMT	34,121	39,851	42,966	42,866	46,111	50,446	54,385	56,017	57,330	60,154	65,666	67,436	0	50,415

Los Angeles City Employees' Retirement System

**Membership Summary**

In the June 30, 2001 Actuarial Valuation

**ACTIVES**

	<u>No.</u>	<u>Annual Salary</u>	<u>Averages</u>		
			<u>Annual Salary</u>	<u>Age</u>	<u>Service</u>
6/30/00	24,234	\$1,182,202,945	\$48,783	44.4	12.3
6/30/01	25,654	1,293,350,061	50,415	44.3	11.8
Percent Increase	5.9%	9.4%	3.3%		

**DEFERRED VESTED**

	<u>No.</u>	<u>Member Contribution</u>	<u>Averages</u>		
			<u>Contribution Balance</u>	<u>Age</u>	<u>Service</u>
6/30/00	701	N/A	N/A	N/A	N/A
6/30/01	748	\$27,416,346	\$36,653	46.6	12.1

**RETIRED AND BENEFICIARIES**

	<u>No.</u>	<u>Annual Allowance</u>	<u>Annual Allowance</u>	<u>Attained Age</u>	<u>Age at Retirement</u>	<u>New Retirees</u>		
						<u>No.</u>	<u>Age</u>	<u>Average Allowance</u>
6/30/00	13,058	\$290,899,998	\$22,278	71.6	N/A	N/A	N/A	N/A
6/30/01	13,365	316,057,216	23,648	71.5	59.0	575	59.1	\$34,231
Percent Increase	2.4%	8.6%	6.2%					

Los Angeles City Employees' Retirement System

**Retirants and Beneficiaries June 30, 2001**

Tabulated by Type of Allowances Being Paid

<u>Type of Allowance</u>	<u>No.</u>	<u>Annual Allowance<sup>1</sup></u>	<u>Average Annual Allowance</u>
<b>Service Retirement</b>			
Unmodified			
50% Continuance	4,253	\$113,812,508	\$26,761
No Continuance	2,605	64,126,619	24,617
Optional Forms			
100% Continuance	1,224	39,055,535	31,908
75% Continuance	631	24,123,134	38,230
60% Continuance	594	21,848,229	36,782
Not Coded/Data issue	139	1,691,221	12,167
Other	21	1,161,616	55,315
Beneficiary	<u>2,463</u>	<u>35,335,796</u>	<u>14,347</u>
Total Service Retirement	11,930	\$301,154,658	\$25,243
<b>Disability Retirement</b>			
Unmodified			
50% Continuance	294	\$3,366,379	\$11,450
No Continuance	303	3,638,436	12,008
Optional Forms			
100% Continuance	39	515,370	13,215
75% Continuance	8	101,667	12,708
60% Continuance	7	126,086	18,012
Not Coded/Data issue	183	2,284,932	12,486
Beneficiary	<u>553</u>	<u>4,359,502</u>	<u>7,883</u>
Total Disability Retirement	1,387	\$14,392,372	\$10,377
<b>Other Beneficiaries</b>	<u>48</u>	<u>510,186</u>	<u>10,629</u>
Total Allowances Being Paid	<u>13,365</u>	<u>\$316,057,216</u>	<u>23,648</u>

<sup>1</sup> Benefits do not include COLA increase on July 1, 2001.

Los Angeles City Employees' Retirement System

**Historical Membership Summary**

In the June 30, 2001 Actuarial Valuation

**Actives**

	<u>No.</u>	<u>Annual Compensation</u>	<u>Averages</u>			<u>Years of Service</u>
			<u>Compensation</u>	<u>Percentage Increase</u>	<u>Age</u>	
6/30/96	22,319	\$957,422,907	\$42,897	-- %	43.9	12.5
6/30/97	22,219	990,616,145	44,584	3.9%	44.2	12.9
6/30/98	22,091	1,011,857,180	45,804	2.7%	44.5	13.2
6/30/99	22,504	1,068,124,413	47,464	3.6%	44.6	13.1
6/30/00	24,234	1,182,202,945	48,783	2.8%	44.4	12.3
6/30/01	25,654	1,293,350,061	50,415	3.3%	44.3	11.8

**Retirees and Beneficiaries**

	<u>No.</u>	<u>Annual Total Pensions</u>	<u>Averages</u>		
			<u>Pension</u>	<u>Percentage Increase</u>	<u>Attained Age</u>
6/30/96	12,242	\$219,872,033	\$17,960	-- %	71.6
6/30/97	12,698	240,692,161	18,955	5.5%	71.5
6/30/98	12,591	259,378,957	20,600	8.7 %	71.5
6/30/99	12,843	277,022,689	21,570	4.7%	71.5
6/30/00	13,058	290,899,998	22,278	3.3%	71.6
6/30/01	13,365	316,057,216	23,648	6.2%	71.5



**ACTUARIAL COST METHODS, ACTUARIAL ASSUMPTIONS**

**AND**

**DEFINITIONS OF TECHNICAL TERMS**

Los Angeles City Employees' Retirement System

**Actuarial Cost Methods - June 30, 2001**

Normal cost and the allocation of benefit values between service rendered before and after the valuation date were determined using a projected unit credit actuarial cost method. Future, anticipated compensation increases are incorporated into this method.

Financing of Unfunded Actuarial Accrued Liability. Each year's actuarial gain (loss) is funded (or credited, if negative) in fifteen installments. Any liability changes due to benefit or assumption changes are funded over 30 years.

Active member payroll in aggregate is assumed to increase 4% a year for the purpose of determining the level percent contributions, although individual annual pay increase rates will increase by greater percentages per year for the purpose of projecting individual pays.

Deferred Member Actuarial Accrued Liability. Data provided includes date of hire, date of birth, date of termination, last pay and an indicator if the deferred member is known to work with a reciprocal employer. Service credit, highest average salary, and deferred retirement age were estimated, based on the data provided. The estimates were used to compute the retirement benefit, upon which the liabilities are based.

Los Angeles City Employees' Retirement System  
**Actuarial Assumptions Used for the June 30, 2001 Valuation**

The contribution requirements and benefit values of the Fund are calculated by applying actuarial assumptions to the benefit provisions and member information furnished, using the actuarial cost methods described on the previous page.

The principal areas of financial risk which require assumptions about future experiences are:

- (i) long-term rates of investment return to be generated by the assets of the Fund.
- (ii) patterns of pay increases to members.
- (iii) rates of mortality among members, retirants, and beneficiaries.
- (iv) rates of withdrawal of active members (without entitlement to a retirement benefit).
- (v) rates of disability among members.
- (vi) the age patterns of actual retirements.

In making a valuation, the monetary effect of each assumption is calculated for as long as a present covered person survives -- a period of time which can be as long as a century.

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Actual experience of the system will not coincide exactly with assumed experience, regardless of the choice of the assumptions, the skill of the actuary and the precision of the many calculations made. Each valuation provides a complete recalculation of assumed future experience and takes into account all past differences between assumed and actual experience. The result is a continual series of adjustments (usually small) to the computed contribution rate. From time to time it becomes appropriate to modify one or more of the assumptions, to reflect experience trends (but not random year-to-year fluctuations).

(Continued on Next Page)

Los Angeles City Employees' Retirement System  
**Actuarial Assumptions Used for the June 30, 2001 Valuation**

(Continued)

The Projected Unit Credit Actuarial Cost Method was used in conjunction with the following actuarial assumptions.

The investment return rate used for the actuarial valuation calculations was 8% a year, net of administrative expenses, compounded annually. This assumption, used to equate the value of payments due at different points in time, is adopted by the Retirement Board. The rate is comprised of two elements:

Inflation	4%
Real Rate of Return	<u>4%</u>
Total	8%

The inflation rate used for the actuarial valuation calculations was 4% per year, compounded annually. It represents the difference between the investment return rate and the assumed real rate of return.

Inflation actually experienced, as measured by the Consumer Price Index for urban wage earners, has been as follows:

Consumer Price Index Urban Wage Earners and Clerical Workers Before 1978 All Urban Consumers After 1977 <u>10 Year Moving Averages</u>	
June 30, 1961	1.4 %
June 30, 1971	3.1%
June 30, 1981	8.4%
June 30, 1991	4.1%
June 30, 2001	2.7%
<b>50-Year Average</b>	<b>3.9%</b>

Los Angeles City Employees' Retirement System  
**Actuarial Assumptions Used for the June 30, 2001 Valuation**  
 (Continued)

Compensation increase rates used to project current pays to those, upon which a benefit will be based, are represented by the following table.

Annual Rate of Compensation Increase

Inflation	4%
plus	
Merit & Longevity	See Table Below for Sample Ages

<u>Age</u>	
20	3%
25	3%
30	3%
35	2%
40	2%
45	1%
50	1%
55	0%
60	0%

Los Angeles City Employees' Retirement System  
**Actuarial Assumptions Used for the June 30, 2001 Valuation**

(Continued)

Rates of separation from active membership are shown below (rates do not include separation on account of retirement or death). This assumption measures the probabilities of members remaining in employment.

Sample	% of Active Members Separating Within Next Year					
	<u>Withdrawal</u>		<u>Death</u>		<u>Disability</u>	
	<u>Men</u>	<u>Women</u>	<u>Men</u>	<u>Women</u>	<u>Men</u>	<u>Women</u>
Ages						
20	31.17%	15.00%	0.03%	0.02%	--%	--%
25	14.62%	11.60%	.04%	.03%	0.02%	--%
30	8.01%	7.41%	.06%	.05%	.06%	0.01%
35	5.84%	5.50%	.08%	.07%	.13%	.02%
40	4.26%	4.38%	.12%	.10%	.18%	.04%
45	3.40%	3.50%	.17%	.14%	.20%	.12%
50	4.38%	6.02%	.23%	.18%	.23%	.20%
55	4.00%	4.82%	.32%	.26%	.24%	.40%
60	2.25%	3.5%	.35%	.35%	.24%	--%

NOTES: Withdrawal rates are 5% higher for actives with less than 4 years of service. The illustrated death rates at age 60 assume eligibility for service retirement.

Los Angeles City Employees' Retirement System  
**Actuarial Assumptions Used for the June 30, 2001 Valuation**

(Continued)

The post-retirement mortality table used was the 1971 Group Annuity Mortality Table, setback one year for males and five years for females. This assumption is used to measure the probabilities of members dying after retirement and the probabilities of each benefit payment being made after retirement. The 1981 Disability Mortality Table (General) is used for disabilitants. Related values are shown below.

Sample	Future Life Expectancy (Years)		% Dying Within Next Year	
	Non-disabled Retirees		Non-disabled Retirees	
<u>Ages</u>	<u>Men</u>	<u>Women</u>	<u>Men</u>	<u>Women</u>
45	32.3	36.0	.26%	.16%
50	27.8	31.4	.47	.29
55	23.5	26.9	.78	.53
60	19.5	22.7	1.19	.85
65	15.8	18.8	1.92	1.31
70	12.5	15.1	3.24	2.13
75	9.7	11.9	5.12	3.61

Los Angeles City Employees' Retirement System  
**Actuarial Assumptions Used for the June 30, 2001 Valuation**

(Continued)

Sample Ages	Future Life Expectancy (Years) Disabled Retirees		% Dying Within Next Year Disabled Retirees	
	<u>Men</u>	<u>Women</u>	<u>Men</u>	<u>Women</u>
45	23.6	23.6	2.08%	2.08%
50	21.1	21.1	2.44	2.44
55	18.7	18.7	2.84	2.84
60	16.4	16.4	3.30	3.30
65	14.1	14.1	3.79	3.79
70	11.7	11.7	4.37	4.37
75	9.2	9.2	5.53	5.53



Los Angeles City Employees' Retirement System  
**Actuarial Assumptions Used for the June 30, 2001 Valuation**

(Continued)

The rates of retirement used to measure the probability of eligible members retiring during the next year.

Retirement Ages	Men	Women
50	1.0%	0.1%
51	1.0%	0.5%
52	1.0%	1.0%
53	1.0%	2.0%
54	1.0%	3.0%
55	10.0%	8.0%
56	11.0%	8.0%
57	12.0%	7.0%
58	13.0%	11.0%
59	14.0%	10.0%
60	20.0%	20.0%
61	18.0%	10.0%
62	16.0%	15.0%
63	18.0%	16.0%
64	20.0%	17.0%
65	30.0%	20.0%
66	25.0%	20.0%
67	25.0%	20.0%
68	25.0%	20.0%
69	25.0%	20.0%
70	100.00%	100.00%

For the special early retirement window, which provides unreduced pensions to employees age 50 and older with 30 or more years of service who retire prior to September 30, 2002, we assumed those eligible would retire at a rate of 25% per year.

Once a member is eligible for retirement, we assumed that the probability of withdrawal is "turned-off", thus the liability is valued as an immediate benefit rather than a deferred benefit at age 60.

For current deferred vested members, we assume that benefits will commence at the later of age 60 or current attained age. We assume that none of the deferred vested members are reciprocal.

Los Angeles City Employees' Retirement System  
**Actuarial Assumptions Used for the June 30, 2001 Valuation**

(Continued)

Survivor Benefits. Marital status and spouses' census data were imputed with respect to active and deferred members.

Marital Status – 76% of men and 56% of women were assumed married or having a domestic partner at retirement.

Spouse Census – Women were assumed to be 4 years younger than men.

Los Angeles City Employees' Retirement System  
**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.

Discount on Projected Cash Flows: 8% per year.

Medical Trend Rates:

	Medical Trend				
	<u>Pre-65</u>	<u>Post 65</u>		<u>Dental Trend</u>	<u>Medicare Part B</u>
		<u>HMO</u>	<u>PPO</u>	<u>Pre and Post 65</u>	
2001-2002	8.25%	14.00%	9.50%	7.75%	6.00%
2002-2003	8.00%	13.00%	9.00%	7.50%	6.00%
2003-2004	7.75%	12.00%	8.75%	7.25%	6.00%
2004-2005	7.50%	11.00%	8.50%	7.00%	6.00%
2005-2006	7.25%	10.00%	8.25%	6.75%	6.00%
2006-2007	7.00%	9.00%	8.00%	6.50%	6.00%
2007-2008	6.75%	9.50%	7.75%	6.25%	6.00%
2008-2009	6.50%	8.00%	7.50%	6.00%	6.00%
2009-2010	6.25%	7.50%	7.25%	6.00%	6.00%
2010-2011	6.00%	7.00%	7.00%	6.00%	6.00%
2011-2012	6.00%	6.75%	6.75%	6.00%	6.00%
2012-2013	6.00%	6.50%	6.50%	6.00%	6.00%
2013-2014	6.00%	6.25%	6.25%	6.00%	6.00%
2014 +	6.00%	6.00%	6.00%	6.00%	6.00%

Los Angeles City Employees' Retirement System  
**Summary of Actuarial Assumptions and Methods**  
**Used for Valuation of Health Subsidy Benefits**

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 Domestic Partners:	91% of male and 66% of female retirees who receive a subsidy are assumed to be married or have a qualified domestic partner 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.
Spousal Coverage:	With regard to Members who are currently alive, 75% of eligible spouse or domestic partners are assumed to elect continued health coverage after the Member's death. With regard to deceased Members, 70% of the current eligible survivors are assumed to elect health coverage.
Funding Method:	Projected Unit Credit Funding Method.
Asset Valuation Method:	The actuarial value of assets is determined by phasing in, over five years, the difference between the actual and expected realized and unrealized appreciation. The expected appreciation is based on the assumed 8.00% rate of return. The actuarial value of assets can be no less than 80% and no greater than 120% of the market value of assets.

## Los Angeles City Employees' Retirement System

### Definitions of Technical Terms

Actuarial Accrued Liability. The difference between the actuarial present value of system benefits and the actuarial value of future normal costs. Also referred to as "accrued liability" or "actuarial liability".

Actuarial Assumptions. Estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Actuarial assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

Accrued Service. Service credited under the system which was rendered before the date of the actuarial valuation.

Actuarial Equivalent. A single amount or series of amounts of equal actuarial value to another single amount or series of amounts, computed on the basis of appropriate actuarial assumptions.

Actuarial Cost Method. A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of retirement system benefits between future normal cost and actuarial accrued liability. Sometimes referred to as the "actuarial funding method".

Actuarial Gain (Loss). The difference between actual experience and actuarial assumption anticipated experience during the period between two actuarial valuation dates.

Actuarial Present Value. The amount of funds currently required to provide a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest, and by probabilities of payment.

Amortization. Paying off an interest-discounted amount with periodic payments of interest and principal -- as opposed to paying off with lump sum payment.

Normal Cost. The actuarial present value of retirement system benefits allocated to the current year by the actuarial cost method.

Pension Benefit Obligation. A standardized disclosure measure of the present value of pension benefits, adjusted for the effects of projected salary increases, estimated to be payable in the future as a result of employee service to date.

(Concluded on Next Page)

Los Angeles City Employees' Retirement System

**Definitions of Technical Terms**

(Concluded)

Unfunded Actuarial Accrued Liability. The difference between actuarial accrued liability and valuation assets. Sometimes referred to as "unfunded actuarial liability" or "unfunded accrued liability".

Most retirement systems have unfunded actuarial accrued liability. They arise each time new benefits are added and each time an actuarial loss is realized.

The existence of unfunded actuarial accrued liability is not in itself bad, any more than a mortgage on a house is bad. Unfunded actuarial accrued liability does not represent a debt that is payable today. What is important is the ability to amortize the unfunded actuarial accrued liability and the trend in its amount (after due allowance for devaluation of the dollar). Unfunded actuarial accrued liability must be controlled.



**DISCLOSURES REQUIRED BY  
STATEMENTS NO. 25 AND 27 OF  
THE GOVERNMENTAL ACCOUNTING STANDARDS BOARD**

Los Angeles City Employees' Retirement System

**GASB No. 25 Disclosure  
Schedule of Funding Progress  
Retirement Benefits**

(\$ in Thousands)

<u>Valuation Date</u>	<u>Valuation Assets</u>	<u>Actuarial Accrued Liability</u>	<u>Unfunded AAL</u>	<u>Funded Ratio</u>	<u>Member Payroll</u>	<u>UAAL Ratio to Payroll</u>
6/30/96	\$4,468,433	\$4,476,024	\$7,591	99.8%	957,423	0.8%
6/30/97	4,802,509	4,886,337	83,828	98.3	990,616	8.5
6/30/98	5,362,923	5,312,918	(50,005)	100.9	1,011,857	(4.9)
6/30/99	5,910,948	5,684,586	(226,362)	104.0	1,068,124	(21.2)
6/30/00	6,561,365	6,012,931	(548,434)	109.1	1,182,203	(46.4)
6/30/01	6,988,782	6,468,066	(520,716)	108.1	1,293,350	(40.3)



Los Angeles City Employees' Retirement System

**GASB No. 25 Disclosure**  
**Schedule of Employer Contributions**  
**Retirement Benefits**

<u>Year Ended June 30</u>	<u>Actuarially Required Contributions (ARC)<sup>1</sup></u>	<u>Contributions Made<sup>1</sup></u>
1996	\$120,660,148	100%
1997	88,799,922	100%
1998	64,459,744	100%
1999	69,248,626	100%
2000	72,146,277	100%
2001	59,153,313 <sup>1</sup>	100%

<sup>1</sup> Exclusive of City-Paid Defrayals of \$20,512,541 and FDB contributions of \$195,000.

**COMPREHENSIVE  
ANNUAL FINANCIAL  
REPORT EXHIBITS**

Los Angeles City Employees' Retirement System

**Solvency Test for Retirement Benefits**

For Years Ended June 30

(In Thousands)

Valuation Date	Aggregate Accrued Liabilities For				Portion of Accrued Liabilities Covered by Reported Assets		
	(1)	(2)	(3)	Reported Assets*	(1)	(2)	(3)
	Active Member Contributions	Retirants, Beneficiaries, & Deferred Vesteds	Active Member		(1)	(2)	(3)
6-30-01	\$889,658	\$3,444,240	\$2,134,168	\$6,988,782	100.0%	100.0%	100.0%
6-30-00	827,729	3,149,392	2,035,810	6,561,365	100.0	100.0	100.0
6-30-99	776,617	2,989,218	1,918,751	5,910,948	100.0	100.0	100.0
6-30-98	733,680	2,772,712	1,806,526	5,362,923	100.0	100.0	100.0
6-30-97	683,048	2,598,432	1,604,857	4,802,509	100.0	100.0	94.8
6-30-96	637,737	2,357,798	1,480,489	4,468,433	100.0	100.0	99.5

\* Actuarial Value of Assets excluding the Family Death Benefit Insurance Plan Reserve

Los Angeles City Employees' Retirement System

**Retirants and Beneficiaries Added To and Removed From the Rolls**

<u>Year Ended</u>	<u>No. of New Retirants/ Beneficiaries</u>	<u>Annual Allowances Added</u>	<u>No. of Retirants/ Beneficiaries Removed</u>	<u>Annual Allowances Removed</u>	<u>No. of Retirants/ Beneficiaries at 6/30</u>	<u>Annual Allowances at 6/30</u>	<u>% Increase in Annual Allowances</u>	<u>Average Annual Allowance</u>
6/30/01	918	3,986,705	593	899,294	13,549 *	311,688,614	N/A	23,005

\* Includes Family Death Benefit Insurance Plan beneficiaries and their allowances.

**APPENDIX A:**  
**MEMBER CONTRIBUTION RATES**

Los Angeles City Employees' Retirement System

**Contribution Rates Assumed for Members**

Participating Before February 1, 1983

<u>Age</u>	<u>Normal</u>	<u>Survivor</u>	<u>Total</u>	<u>Age</u>	<u>Normal</u>	<u>Survivor</u>	<u>Total</u>
16	8.00%	0.22%	8.22%	40	10.19%	0.91%	11.10%
17	8.04	0.28	8.32	41	10.29	0.92	11.21
18	8.08	0.33	8.41	42	10.41	0.93	11.34
19	8.14	0.39	8.53	43	10.52	0.94	11.46
20	8.20	0.44	8.64	44	10.64	0.95	11.59
21	8.27	0.48	8.75	45	10.76	0.97	11.73
22	8.34	0.53	8.87	46	10.89	0.98	11.87
23	8.42	0.56	8.98	47	11.01	0.99	12.00
24	8.50	0.60	9.10	48	11.12	1.00	12.12
25	8.58	0.63	9.21	49	11.24	1.01	12.25
26	8.66	0.66	9.32	50	11.34	1.03	12.37
27	8.75	0.68	9.43	51	11.44	1.05	12.49
28	8.86	0.70	9.56	52	11.55	1.06	12.61
29	8.96	0.72	9.68	53	11.65	1.07	12.72
30	9.06	0.75	9.81	54	11.75	1.08	12.83
31	9.17	0.77	9.94	55	11.85	1.09	12.94
32	9.28	0.79	10.07	56	11.94	1.10	13.04
33	9.40	0.81	10.21	57	12.03	1.12	13.15
34	9.50	0.82	10.32	58	12.13	1.13	13.24
35	9.61	0.83	10.44	59 - Over	12.19	1.14	13.33
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				

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