

Actuarial Valuation and Review of Retirement and Health Benefits as of June 30, 2014



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December 3, 2014

Board of Retirement Los Angeles City Employees' Retirement System 202 W. 1<sup>st</sup> Street, Suite 500 Los Angeles, CA 90012-4401

Re: June 30, 2014 Actuarial Valuations

Dear Board Members:

Enclosed please find the June 30, 2014 actuarial valuations for the retirement and health plans.

As requested by the System, we have attached the following supplemental schedules:

- > Exhibit A Summary of significant results for the retirement and health plans.
- > Exhibit B History of computed contribution rates for the retirement and health plans.
- > Exhibit C Solvency test for the retirement plan. 1
- > Exhibit D Schedule of retirees and beneficiaries added to and removed from the rolls for the retirement plan.<sup>2</sup>

We look forward to discussing the reports and the enclosed schedules with the Board.

Sincerely,

Paul Angelo, FSA, MAAA, FCA, EA Senior Vice President and Actuary Andy Yeung, ASA, MAAA, FCA, EA

DNA/gxk

5340176v3/05806.002

<sup>&</sup>lt;sup>1</sup> For the health plan, a similar schedule is provided in Exhibit I of the health valuation report.

<sup>&</sup>lt;sup>2</sup> For the health plan, a similar schedule is provided in Exhibit C of the health valuation report.

### Exhibit A

#### Los Angeles City Employees' Retirement System Summary of Significant Valuation Results

	·	<u>June 30, 2014</u>	<u>June 30, 2013</u>	Percent <u>Change</u>
I.	Total Membership A. Active Members B. Pensioners and Beneficiaries	24,009 17,532	24,441 17,362	-1.8% 1.0%
II.	Valuation Salary A. Total Annual Payroll B. Average Monthly Salary	\$1,898,064,175 6,588	\$1,846,970,474 6,297	2.8% 4.6%
III.	Benefits to Current Retirees and Beneficiaries <sup>(1)</sup> A. Total Annual Benefits B. Average Monthly Benefit Amount	\$716,556,070 3,406	\$699,064,942 3,355	2.5% 1.5%
IV.	Total System Assets <sup>(2)</sup> A. Actuarial Value B. Market Value	\$12,935,503,398 13,935,771,998	\$12,004,110,338 11,922,538,917	7.8% 16.9%
V.	Unfunded Actuarial Accrued Liability (UAAL) A. Retirement Benefits B. Health Subsidy Benefits	\$5,304,102,525 721,628,343	\$4,657,702,276 677,750,710	13.9% 6.5%

<sup>(1)</sup> Includes July COLA.



<sup>(2)</sup> Includes assets for Retirement, Health, Family Death, and Larger Annuity Benefits.

#### **Exhibit A (continued)**

#### Los Angeles City Employees' Retirement System Summary of Significant Valuation Results

VI.	Budget Items (as a Percent of Pay)	FY 2015-2	2016****	FY 20	14-2015**	Differ	ence
		Beginning		Beginning		Beginning	
	<del>-</del>	of Year*	July 15	of Year	July 15	of Year	July 15
	A. Retirement Benefits (Tier 1 and Tier 2 Combined	)					
	1. Normal Cost	6.56%	6.58%	6.86%	6.89%	(0.30)%	(0.31)%
	2. Amortization of UAAL	<u>16.63%</u>	16.68%	<u>14.57%</u>	<u>14.61%</u>	2.06%	2.07%
	3. Total Retirement Contribution	23.19%	23.26%	21.43%	21.50%	1.76%	1.76%
	B. Health Subsidy Contribution (Tier 1 and Tier 2 C	ombined)					
	1. Normal Cost	3.43%	3.44%	3.48%	3.49%	(0.05)%	(0.05)%
	2. Amortization of UAAL	2.17%	2.18%	2.11%	2.12%	0.06%	0.06%
	3. Total Health Subsidy Contribution	5.60%	5.62%	5.59%	5.61%	0.01%	0.01%
	C. Total Contribution (A + B)	28.79%	28.88%	27.02%	27.11%	1.77%	1.77%
VII.	Funded Ratio	June 30,	2014	June 30,	2013	<u>Differe</u>	ence ence
	(Based on Valuation Value of Assets)						
	A. Retirement Benefits	67.4	%	68.7	%	(1	3)%
	B. Health Subsidy Benefits	72.9%		71.9%		1.0%	
	C. Total	68.1	%	69.1	%	(1.	0)%
	(Based on Market Value of Assets)						
	D. Retirement Benefits	72.6	%	68.2	%	4.4	4%
	E. Health Subsidy Benefits	78.5	%	71.4	%	7.1	1%
	F. Total	73.4	%	68.7	%	4.′	7%

<sup>\*</sup> Alternative contribution payment date for FY 2015-2016:

End of Pay Periods (after reflecting additional employee contributions) 24.0

 Retirement
 Health
 Total

 24.05%
 5.81%
 29.86%



<sup>\*\* &</sup>lt;u>Before</u> adjustments to phase in over five years the impact of new actuarial assumptions (as a result of the June 30, 2011 Triennial Experience Study) on the City's contributions. For Fiscal Year 2015-2016 contribution rates after the phase-in adjustments, refer to our letter dated November 24, 2014.

<sup>\*\*\* &</sup>lt;u>Before</u> any adjustments that may be considered by the Board to phase in the City contribution rate impact of new actuarial assumptions adopted as recommended in the June 30, 2014 Triennial Experience Study. For Fiscal Year 2015-2016 contribution rates due to the phase-in, refer to our letter dated November 25, 2014.

# Exhibit B Los Angeles City Employees' Retirement System Computed Contribution Rates<sup>(1)</sup> – Historical Comparison

				Valuation
Valuation				Payroll
<u>Date</u>	Retirement	<b>Health</b>	<u>Total</u>	(thousands)
$06/\overline{30/1994}$	12.07%	2.99%	15.06%	\$884,951
06/30/1995	7.34%	2.30%	9.64%	911,292
06/30/1996	6.51%	3.18%	9.69%	957,423
06/30/1997	6.57%	1.85%	8.42%	990,616
06/30/1998	6.43%	1.27%	7.70%	1,011,857
06/30/1999	4.93%	0.67%	5.60%	1,068,124
06/30/2000	2.54%	2.17%	4.71%	1,182,203
06/30/2001	3.84%	1.98%	5.82%	1,293,350
06/30/2002	9.22%	1.85%	11.07%	1,334,335
06/30/2003	11.95%	4.02%	15.97%	1,405,058
06/30/2004	14.76%	4.94%	19.70%	1,575,285
06/30/2005	17.51%	7.27%	24.78%	1,589,306
06/30/2006	17.18%	6.49%	23.67%	1,733,340
06/30/2007	15.52%	5.38%	20.90%	1,896,609
06/30/2008	14.65%	5.48%	20.13%	1,977,645
06/30/2009	18.73%	6.62%	25.35%	1,816,171
06/30/2010				
Before Additional Employee Contributions	21.19%	7.45%	28.64%	1,817,662
After Additional Employee Contributions	18.67%	6.94%	25.61%	1,817,662
$06/30/2011^{(2)}$				
Before Additional Employee Contributions	24.31%	4.49%	28.80%	1,833,392
After Additional Employee Contributions	21.64%	4.49%	26.13%	1,833,392
$06/30/2012^{(3)}$	21.34%	5.74%	27.08%	1,819,270
06/30/2013	22.24%	5.80%	28.04%	1,846,970
$06/30/2014^{(4),(5)}$	24.05%	5.81%	29.86%	1,898,064

<sup>1)</sup> Contributions are assumed to be made at the end of the pay period. Beginning with the 6/30/2014 valuation, the contribution rates are the combined rates for Tiers 1 and 2.

<sup>(5) &</sup>lt;u>Before</u> any adjustments that may be considered by the Board to phase in the City contribution rate impact of new actuarial assumptions adopted as recommended in the June 30, 2014 Triennial Experience Study. For Fiscal Year 2015-2016 contribution rates due to the phase-in adjustments, refer to our letter dated November 25, 2014.



Beginning with the 6/30/2011 valuation date, the contribution rates are <u>before</u> adjustments to phase in over five years the impact of new actuarial assumptions (as a result of the June 30, 2011 Triennial Experience Study) on the City's contributions.

<sup>(3)</sup> Beginning with the 6/30/2012 valuation date, the contribution rates are after additional employee contributions.

<sup>(4)</sup> For Fiscal Year 2015-2016 contribution rates after the phase-in adjustments for the June 30, 2011 Triennial Experience Study, refer to our letter dated November 24, 2014.

### Exhibit C

#### Los Angeles City Employees' Retirement System Solvency Test for Retirement Benefits For Years Ended June 30

(\$ In Thousands)

	Aggregate A	Actuarial Accrued Li	abilities For			on of Accrued Liabi ered by Reported As	
	(1)	(2) Retirees,	(3)	Valuation	(1)	(2) Retirees,	(3)
<b>Valuation <u>Date</u></b> 06/30/1996	Member <u>Contributions</u> \$637,737	Beneficiaries, & <u>Inactives</u> \$2,357,798	<b>Active</b> <u><b>Members</b></u> \$1,480,489	Value of <u>Assets</u> \$4,468,433	Member Contributions 100.0%	Beneficiaries, & <u>Inactives</u> 100.0%	Active <u>Members</u> 99.5%
06/30/1997	683,048	2,598,432	1,604,857	4,802,509	100.0	100.0	94.8
06/30/1998	733,680	2,772,712	1,806,526	5,362,923	100.0	100.0	100.0
06/30/1999	776,617	2,989,218	1,918,751	5,910,948	100.0	100.0	100.0
06/30/2000	827,729	3,149,392	2,035,810	6,561,365	100.0	100.0	100.0
06/30/2001	889,658	3,444,240	2,134,168	6,988,782	100.0	100.0	100.0
06/30/2002	950,002	3,756,935	2,545,181	7,060,188	100.0	100.0	92.5
06/30/2003	1,005,888	4,021,213	2,632,745	6,999,647	100.0	100.0	74.9
06/30/2004	1,062,002	4,348,252	3,123,610	7,042,108	100.0	100.0	52.2
06/30/2005	1,128,101	4,858,932	3,334,492	7,193,142	100.0	100.0	36.2
06/30/2006	1,210,246	5,149,385	3,511,031	7,674,999	100.0	100.0	37.5
06/30/2007	1,307,008	5,365,437	3,854,429	8,599,700*	100.0	100.0	50.0
06/30/2008	1,408,074	5,665,130	4,113,200	9,438,318	100.0	100.0	57.5
06/30/2009	1,282,663	7,356,302	3,403,019	9,577,747	100.0	100.0	27.6
06/30/2010	1,379,098	7,507,945	3,707,982	9,554,027	100.0	100.0	18.0
06/30/2011	1,474,824	7,765,071	4,151,809	9,691,011	100.0	100.0	10.9
06/30/2012	1,625,207	7,893,684	4,875,068	9,934,959	100.0	100.0	8.5
06/30/2013	1,757,195	8,066,564	5,057,904	10,223,961	100.0	100.0	7.9
06/30/2014	1,900,068	8,700,896	5,647,889	10,944,751	100.0	100.0	6.1

<sup>\*</sup> Excludes assets transferred for Port Police.



Exhibit D

#### Los Angeles City Employees' Retirement System Retirees and Beneficiaries Added To and Removed From the Rolls\* For Years Ended June 30

Year <u>Ended</u>	No. of New Retirees/ Beneficiaries	Annual Allowances <u>Added**</u>	No. of Retirees/ Beneficiaries <u>Removed</u>	Annual Allowances <u>Removed</u>	No. of Retirees/ Beneficiaries at 6/30	Annual Allowances <u>at 6/30</u>	Percent Increase in Annual <u>Allowances</u>	Average Annual <u>Allowance</u>
06/30/2002	844	\$23,740,829	620	\$11,316,344	13,589	\$336,437,038	6.4%	\$24,758
06/30/2003	827	24,729,535	611	12,008,132	13,805	359,036,215	6.7%	26,008
06/30/2004	986	53,452,133	654	13,220,316	14,137	399,268,032	11.2%	28,243
06/30/2005	934	43,454,836	749	14,769,736	14,322	427,953,132	7.2%	29,881
06/30/2006	890	42,821,079	642	15,061,287	14,570	455,712,924	6.5%	31,277
06/30/2007	821	34,131,744	555	13,210,740	14,836	476,633,928	4.6%	32,127
06/30/2008	748	40,680,279	609	14,956,623	14,975	502,357,584	5.4%	33,546
06/30/2009	632	36,887,854	616	17,386,042	14,991	521,859,396	3.9%	34,812
06/30/2010	2,893	144,594,918	620	17,604,486	17,264	648,849,828	24.3%	37,584
06/30/2011	528	24,282,965	595	16,585,589	17,197	656,547,204	1.2%	38,178
06/30/2012	620	38,314,256	594	17,986,700	17,223	676,874,760	3.1%	39,301
06/30/2013	772	40,966,952	633	18,776,770	17,362	699,064,942	3.3%	40,264
06/30/2014	831	38,666,905	661	21,175,777	17,532	716,556,070	2.5%	40,871

<sup>\*</sup> Does not include Family Death Benefit Plan members. Table based on valuation data.

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<sup>\*\*</sup> Effective 06/30/2004, also includes the COLA granted in July.



# Los Angeles City Employees' Retirement System

Actuarial Valuation and Review of Retirement Benefits as of June 30, 2014

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December 3, 2014

Board of Administration Los Angeles City Employees' Retirement System 202 W. 1st Street, Suite 500 Los Angeles, CA 90012-4401

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of June 30, 2014. It summarizes the actuarial data used in the valuation, establishes the funding requirements for fiscal 2015/2016 and analyzes the preceding year's experience.

This report was prepared in accordance with generally accepted actuarial principles and practices, at the request of the Board to assist in administering the Plan. The census and unaudited financial information on which our calculations were based were prepared by LACERS. That assistance is gratefully acknowledged.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and changes in plan provisions or applicable law.

The actuarial calculations were directed under our supervision. We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and the expectations for the Plan.

We look forward to reviewing this report at your next meeting and to answering any questions.

Sincerely,

Segal Consulting, a Member of the Segal Group, Inc.

Bv:

Paul Angelo, FSA, MAAA, EA, FCA Senior Vice President and Actuary

Andy Yeung, ASA, MAAA, EA,

Vice President and Associate Actuary

JRC/hy

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#### **Purpose**

This report has been prepared by Segal Consulting to present an actuarial valuation of the Los Angeles City Employees' Retirement System as of June 30, 2014. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits. The contribution requirements presented in this report are based on:

- > The benefit provisions of the Pension Plan, as administered by the Board of Administration;
- The characteristics of covered active members, inactive members, and retired members and beneficiaries as of June 30, 2014, provided by LACERS;
- > The assets of the Plan as of June 30, 2014, provided by LACERS;
- > Economic assumptions regarding future salary increases and investment earnings; and
- > Other actuarial assumptions, regarding employee terminations, retirement, death, etc.

#### Significant Issues in Valuation Year

The following key findings were the result of this actuarial valuation:

- > The results of this valuation reflect changes in the actuarial assumptions as recommended by Segal Consulting and adopted by the Board on October 28, 2014. These changes were documented in our 2014 Triennial Actuarial Experience Study report dated October 8, 2014 and are also outlined in Section 4, Exhibit VI of this report. These assumption changes resulted in an increase in the combined (Tier 1 and Tier 2) City contribution rate of 2.85% of payroll.
  - Based on action taken by the Board on September 9, 2014, the amortization period for assumption and method changes was reduced from 30 years to 20 years. The costs associated with the changes in actuarial assumptions adopted from the 2014 Experience Study have been amortized over the new 20-year period in this valuation report.
- > The ratio of the valuation value of assets to actuarial accrued liabilities decreased from 68.70% to 67.36%. On a market value of assets basis, the funded ratio increased from 68.23% to 72.57%. The unfunded actuarial accrued liability increased from \$4.658 billion to \$5.304 billion. A complete reconciliation of the System's unfunded actuarial accrued liability is provided in Section 3, Exhibit G.
  - The aggregate employer rate (payable at the end of each pay period) calculated in this valuation has increased from 22.24% of payroll to 24.05% of payroll. The annual dollar contributions calculated in this valuation increased from about

Ref: Pg. 36

Ref: Pgs. 25 and 33

Ref: Pg. 14



\$410.9 million to \$456.4 million. The increase was due to: (i) the effect of the anticipated one-year delay in implementing the higher combined (i.e., employer plus employee) contribution rate calculated in the prior valuation, (ii) amortizing the prior year's UAAL over a smaller than expected projected total payroll, (iii) higher than expected salary increases for continuing active members, and (iv) the changes in the actuarial assumptions, offset somewhat by (v) the decrease in normal cost due to payroll and demographic changes (including the enrollment of new employees in Tier 2), (vi) the higher than expected return on the valuation value of assets (after smoothing), (vii) lower than expected COLA granted to retirees and beneficiaries, and (viii) other actuarial gains. A complete reconciliation of the aggregate employer contribution is provided in Section 2, Chart 15.

> On October 25, 2011, the Board elected to phase in the impact of new actuarial assumptions (adopted as a result of the June 30, 2011 Triennial Experience Study) on the City's retirement and health plan contributions over a five-year period, beginning with the 2012-2013 Fiscal Year. The recommended (i.e., pre-phase-in) contribution rates for Fiscal Year 2015-2016 (the fourth year of the phase-in) are contained in this report. In a separate letter, we provide the "phased-in" contribution rates for Fiscal Year 2015-2016.

On October 14, 2014, as part of the Board's deliberations on the actuarial assumptions for use in this valuation, the Board also discussed the possibility of phasing in the cost impact of the new actuarial assumptions adopted from the recent June 30, 2014 Triennial Experience Study on the City's retirement and health plan contributions over three alternative phase-in periods. In another separate letter, we provide the incremental phase-in contribution rates for Fiscal Year 2015-2016 resulting from the 2014 Experience Study.

> Based on additional action taken by the Board on September 9, 2014, the net amount of unrecognized investment losses as of June 30, 2013 (i.e., \$81,571,421) has been recognized in six level amounts, with five years of recognition remaining after the June 30, 2014 valuation.

As indicated in Section 2, Subsection B of this report, the total unrecognized investment gain as of June 30, 2014 is \$1,000,268,600¹ for the assets for Retirement, Health, Family Death, and Larger Annuity Benefits. This investment gain will be recognized in the determination of the actuarial value of assets for funding purposes in the next several years. This implies that earning the assumed rate of investment return of 7.50% per year (net of expenses) on a market value basis will result in net investment gains on the actuarial value of assets after June 30, 2014. Item 9 in Chart 7 shows how, under the asset smoothing method, the \$1.0 billion in unrecognized gains will be recognized in the next six years.

<sup>&</sup>lt;sup>1</sup> For comparison purposes, the total unrecognized investment loss as of June 20, 2013 was \$81,571,421, as referenced earlier.



Ref: Pg. 5

The deferred gains of \$1.0 billion represent 7.2% of the market value of assets as of June 30, 2014. Unless offset by future investment losses or other unfavorable experience, the recognition of the \$1.0 billion market gains is expected to have an impact on the System's future funded percentage and contribution rate requirements. This potential impact may be illustrated as follows:

- If the retirement plan component of the deferred gains were recognized immediately in the valuation value of assets, the funded percentage would increase from 67.36% to 72.57%.
- If the retirement plan component of the deferred gains were recognized immediately in the valuation value of assets, the aggregate employer rate (payable at the end of each pay period) would decrease from 24.05% to about 20.3% of payroll.
- > The actuarial valuation report as of June 30, 2014 is based on financial information as of that date. Changes in the value of assets subsequent to that date are not reflected. Declines in asset values will increase the actuarial cost of the Plan, while increases will decrease the actuarial cost of the Plan.
- As in prior years, the employer contribution rates (before adjustments for the five-year phase in of the impact of new actuarial assumptions adopted for the June 30, 2011 valuation) provided in this report have been developed assuming they will be paid by the City on any of the following dates:
  - (1) The beginning of the fiscal year, or
  - (2) On July 15, 2015, or
  - (3) Throughout the year (i.e., the City will pay contributions at the end of every pay period).
- > Carrying over the prior instructions from the Board of Administration, the recommended contribution is set equal to the greater of the current funding policy or the minimum Annual Required Contribution (ARC) as determined by the then current GASB Statements 25 and 27. In particular, we have also continued to include in the calculation of the recommended contribution an additional contribution due to the application of the 40-year minimum amortization requirement for both fiscal year 2003/2004 and fiscal year 2004/2005.
- > Even though the City will be paying UAAL contributions based on the Tier 2 payroll, the contributions should be maintained on a bookkeeping basis as contributions made to the Tier 1 plan. We believe this treatment is reasonable even though some of those contributions may be allocated to pay off 50% of the UAAL that the City is required to pay to Tier 2. However, we are not recommending that allocation at this time because Segal Consulting would need to work with LACERS to determine the procedure required to ensure that none of those contributions would inadvertently affect the

Ref: Pg. 26



- calculation that we would perform in the June 30, 2016 valuation when the Tier 2 members are required for the first time to pay the other 50% of the UAAL starting on July 1, 2017.
- > The Governmental Accounting Standards Board (GASB) approved two new Statements affecting the reporting of pension liabilities for accounting purposes. Statement 67 replaces Statement 25 and is for plan reporting. Statement 67 is effective with the fiscal year ending June 30, 2014 for Plan reporting. Statement 68 replaces Statement 27 and is for employer reporting. Statement 68 is effective with the fiscal year ending June 30, 2015 for employer reporting. The information needed to comply with Statements 67 and 68 will be provided in separate reports.



Summary of Key Valuation Results	2014	2013
Contributions calculated as of June 30: (1),(2)		
Recommended as a percentage of pay (there is a 12-month delay until the rate is effective)		
Tier 1		
At the beginning of the year	23.32%	21.43%
On July 15	23.39%	21.50%
At the end of each pay period	24.18%	22.24%
Tier 2		
At the beginning of the year	18.07%	15.73%
On July 15	18.12%	15.77%
At the end of each pay period	18.74%	16.33%
Combined		
At the beginning of the year	23.19%	21.43%(3)
On July 15	23.26%	21.50%(3)
At the end of each pay period	24.05%	$22.24\%^{(3)}$
Funding elements for plan year ended June 30:		
Normal cost	\$322,380,251	\$317,185,480
Market value of assets (MVA) <sup>(4)</sup>	13,935,771,998	11,922,538,917
Actuarial value of assets $(AVA)^{(4)}$	12,935,503,398	12,004,110,338
Valuation value of retirement assets (VVA)	10,944,750,574	10,223,960,886
Market value of retirement assets (MVA)	11,791,079,473	10,154,486,098
Actuarial accrued liability (AAL)	16,248,853,099	14,881,663,162
Unfunded/(overfunded) actuarial accrued liability (UAAL) on VVA basis	5,304,102,525	4,657,702,276
Unfunded/(overfunded) actuarial accrued liability (UAAL) on MVA basis	4,457,773,626	4,727,177,064
Funded ratio on VVA basis for retirement (VVA/AAL)	67.36%	68.70%
Funded ratio on MVA basis for retirement (MVA/AAL)	72.57%	68.23%
Employer contributions for fiscal year ended June 30:		
Actuarially determined employer contributions	\$357,649,232	\$346,180,852
Actual contributions	357,649,232	346,180,852
Percentage contributed	100.00%	100.00%

Both the June 30, 2014 and the June 30, 2013 contribution rates are <u>before</u> adjustments to phase in over five years the City contribution rate impact of new actuarial assumptions adopted as recommended in the June 30, 2011 Triennial Experience Study.

<sup>(4)</sup> Includes assets for Retirement, Health, Family Death, and Larger Annuity Benefits.



June 30, 2014 contribution rates are <u>before</u> any adjustments that may be considered by the Board to phase in the City contribution rate impact of new actuarial assumptions adopted as recommended in the June 30, 2014 Triennial Experience Study.

<sup>(3)</sup> Calculated using only Tier 1 rates because there were no Tier 2 members reported in the June 30, 2013 valuation.

	2014	2013
Demographic data for plan year ended June 30:		
Number of retired members and beneficiaries	17,532	17,362
Number of inactive members	6,031	5,799
Number of active members	24,009	24,441
Projected total payroll <sup>(5)</sup>	\$1,898,064,175	\$1,846,970,474
Projected average payroll <sup>(5)</sup>	\$79,056	\$75,569

<sup>(5)</sup> Reflects annualized salaries for part-time members.



#### **Actuarial Certification**

December 3, 2014

This is to certify that Segal Consulting (Segal) has conducted an actuarial valuation of the Los Angeles City Employees' Retirement System retirement program as of June 30, 2014, in accordance with generally accepted actuarial principles and practices. Actuarial valuations are performed annually for this retirement program with the last valuation completed on June 30, 2013. The actuarial calculations presented in this report have been made on a basis consistent with our understanding of the historical funding methods used in determination of the liability for retirement benefits.

The actuarial valuation is based on the plan of benefits verified by LACERS and on participant and financial data provided by LACERS. Segal did not audit LACERS' financial statements, but we conducted an examination of all participant data for reasonableness and we concluded that it was reasonable and consistent with the prior year's data.

One of the general goals of an actuarial valuation is to establish contributions that fully fund the Retirement System's liabilities, and that, as a percentage of payroll, remain as level as possible for each generation of active members. Both the Normal Cost and the Actuarial Accrued Liability are determined under the Entry Age cost method.

The actuarial computations made are for funding plan benefits. Accordingly, additional determinations will be needed for other purposes, such as satisfying financial accounting requirements under GASB Statements 67 and 68 and judging benefit security at termination.

In addition to all schedules that are shown in the actuarial section of the Comprehensive Annual Financial Report (CAFR), a listing of supporting exhibits included in the statistical and financial sections of the System's CAFR that are prepared by Segal Consulting is provided below:

- 1) History of employer contributions (Exhibit II)
- 2) Schedule of funding progress (Exhibit III)
- 3) Supplementary information required by the GASB (Exhibit IV)

To the best of our knowledge, this report is complete and accurate and in our opinion presents the plan's current funding information. The undersigned is a member of the American Academy of Actuaries and is qualified to render the actuarial opinion contained herein.

Andy Yeung, ASA, MAAA, EA, FCA Vice President and Associate Actuary



#### A. MEMBER DATA

The Actuarial Valuation and Review considers the number and demographic characteristics of covered members, including active members, inactive non-vested members (entitled to a refund of member contributions), inactive vested members, retired members and beneficiaries. This section presents a summary of significant statistical data on these member groups.

More detailed information for this valuation year and the preceding valuation can be found in Section 3, Exhibits A, B, and C.

A historical perspective of how the member population has changed over the past ten valuations can be seen in this chart.

CHART 1 Member Population: 2005 – 2014

Year Ended June 30	Active Members	Inactive Members*	Retired Members and Beneficiaries	Ratio of Non-Actives to Actives
2005	27,333	2,426	14,322	0.61
2006	28,839	2,903	14,570	0.61
2007	30,175	3,303	14,836	0.60
2008	30,236	4,273	14,975	0.64
2009	30,065	4,554	14,991	0.65
2010	26,245	5,344	17,264	0.86**
2011	25,449	5,623	17,197	0.90
2012	24,917	5,808	17,223	0.92
2013	24,441	5,799	17,362	0.95
2014	24,009	6,031	17,532	0.98

<sup>\*</sup> Includes terminated members due a refund of employee contributions.

<sup>\*\*</sup> Reflects 2009 Early Retirement Incentive Program.



#### **Active Members**

Plan costs are affected by the age, years of service and payroll of active members. In this year's valuation, there were 24,009 active members with an average age of 48.8, average years of service of 15.0 years and average payroll of \$79,056.

The 24,441 active members in the prior valuation had an average age of 48.3, average service of 14.5 years and average payroll of \$75,569.

#### **Inactive Members**

In this year's valuation, there were 6,031 members who were either non-vested and entitled to a refund of member contributions or vested with a right to a deferred or immediate benefit.

These graphs show a distribution of active members by age and by years of service.

CHART 2
Distribution of Active Members by Age as of June 30, 2014

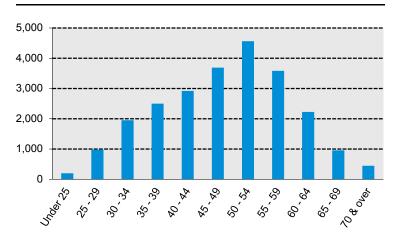
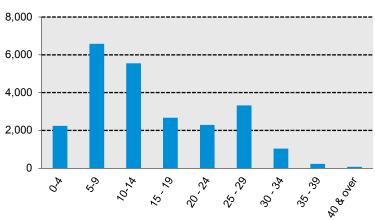


CHART 3

Distribution of Active Members by Years of Service as of June 30, 2014





#### **Retired Members and Beneficiaries**

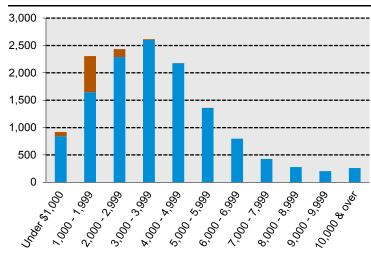
As of June 30, 2014, 13,780 retired members and 3,752 beneficiaries were receiving total monthly benefits of \$59,713,006. For comparison, in the previous valuation, there were 13,669 retired members and 3,693 beneficiaries receiving monthly benefits of \$58,255,412.

Please note that the monthly benefits provided have been adjusted for the COLA granted effective for the month of July.

These graphs show a distribution of the current retired members based on their monthly amount and age, by type of pension.

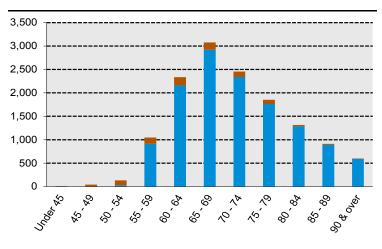
DisabilityRegular

CHART 4
Distribution of Retired Members by Type and by Monthly Amount as of June 30, 2014



### CHART 5 Distribution of Retired Members by Type and by A

Distribution of Retired Members by Type and by Age as of June 30, 2014



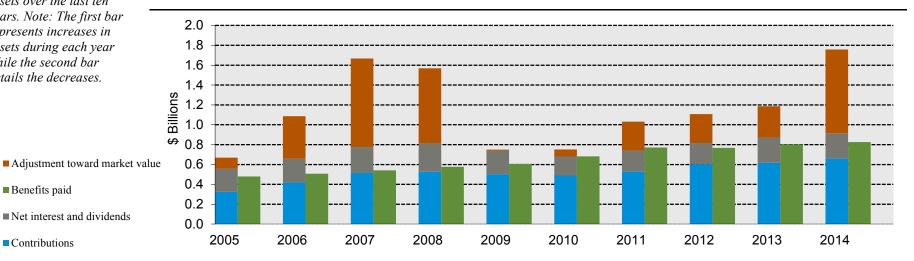
#### **B. FINANCIAL INFORMATION**

Retirement plan funding anticipates that, over the long term, both net contributions and net investment earnings (less investment fees and administrative expenses) will be needed to cover benefit payments.

Retirement plan assets change as a result of the net impact of these income and expense components. Additional financial information, including a summary of these transactions for the valuation year, is presented in Section 3, Exhibits D, E and F.

The chart depicts the components of changes in the actuarial value of assets over the last ten years. Note: The first bar represents increases in assets during each year while the second bar details the decreases.

#### **CHART 6** Comparison of Increases and Decreases in the Actuarial Value of Assets for Years Ended June 30, 2005 - 2014





■ Net interest and dividends

■ Benefits paid

■ Contributions

It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board of Administration has approved an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable.

The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

The chart shows the determination of the actuarial value of assets as of the valuation date.

#### **CHART 7**

#### Determination of Actuarial Value of Assets as of June 30, 2014

1.	Market value of assets				\$13,935,771,998
2.	Calculation of unrecognized return <sup>(1)</sup>	Original <u>Amount</u>	Percent Not Recognized	Amount Not Recognized	
	(a) Year ended June 30, 2014	\$1,246,285,581	85.71%	\$1,068,244,784	_
	(b) Year ended June 30, 2013	683,838,549			
	(c) Year ended June 30, 2012	-770,325,267			
	(d) Year ended June 30, 2011	1,208,621,516	see footnote	(2) below	
	(e) Year ended June 30, 2010	392,956,483			
	(f) Year ended June 30, 2009	-2,964,832,484	83.33%	<u>-67,976,184</u>	
	(g) Total unrecognized return				\$1,000,268,600
3.	Preliminary actuarial value: (1) - (2g)				\$12,935,503,398
4.	Adjustment to be within 40% corridor				0
5.	Final actuarial value of assets: $(3) + (4)$				<u>\$12,935,503,398</u>
6.	Actuarial value as a percentage of market value: $(5) \div (1)$				92.8%
7.	Market value of retirement assets				\$11,791,079,473
8.	Valuation value of retirement assets $(5) \div (1) \times (7)$				\$10,944,750,574
9.	Deferred return recognized in each of the next 6 years:				
	(a) Amount recognized on 6/30/2015				\$164,445,560
	(b) Amount recognized on 6/30/2016				164,445,560
	(c) Amount recognized on 6/30/2017				164,445,560
	(d) Amount recognized on 6/30/2018				164,445,560
	(e) Amount recognized on 6/30/2019				164,445,560
	(f) Amount recognized on 6/30/2020				178,040,797
	(g) Subtotal (may not total exactly due to rounding)				\$1,000,268,600

<sup>(1)</sup> Total return minus expected return on a market value basis.

Based on action taken by the Board on September 9, 2014, the net unrecognized loss as of June 30, 2013 (i.e., \$81,571,421) has been recognized in six level amounts, with five years of recognition remaining after the June 30, 2014 valuation.

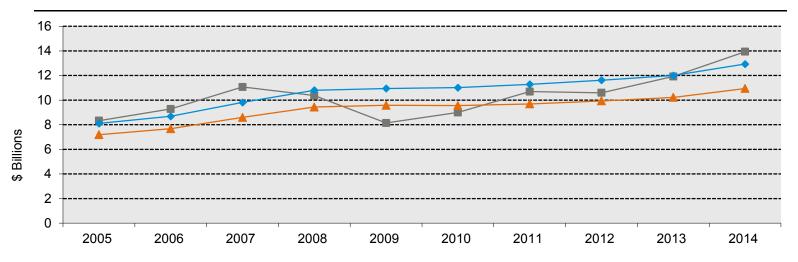


The actuarial value, market value and valuation value of assets are representations of LACERS' financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the market value of assets. The portion of the total actuarial value of assets allocated for retirement benefits, based on a prorated share of market value, is shown as the valuation value of assets. The valuation value of assets is significant because LACERS' liabilities are compared to these assets to determine what portion, if any, remains unfunded. Amortization of the unfunded actuarial accrued liability is an important element in determining the contribution requirement.

This chart shows the change in the assets over the past ten years.

CHART 8

Market Value, Actuarial Value, and Valuation Value (Retirement Only) of Assets as of June 30, 2005 – 2014





── Market Value

- Actuarial Value

Valuation Value (Retirement Only)

#### C. ACTUARIAL EXPERIENCE

To calculate the required contribution, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain), the contribution requirement will decrease from the previous year. On the other hand, the contribution requirement will increase if overall actuarial experience is less favorable than expected (an actuarial loss).

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term development and that, over the long term, experience will return to the original assumptions. For contribution

requirements to remain stable, assumptions should approximate experience.

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years.

The total gain of \$215,549,892 was due to an investment gain of \$83,815,425 (after smoothing) and a gain of \$131,734,467 from all other sources. The net experience variation from all other sources was 0.81% of the actuarial accrued liability. A discussion of the major components of the actuarial experience is on the following pages.

This chart provides a summary of the actuarial experience during the past year.

#### **CHART 9**

#### Actuarial Experience for Year Ended June 30, 2014

1.	Net gain from investments*	\$83,815,425
2.	Net gain from other experience**	161,871,265
3.	Net loss from scheduled one-year delay in implementing the higher contribution rate calculated in the June 30, 2013 valuation until fiscal year 2014/2015	-30,136,798
4.	Net experience gain: $(1) + (2) + (3)$	\$215,549,892

<sup>\*</sup> Details in Chart 10.



<sup>\*\*</sup> Details in Chart 13. The net gain is attributed to actual liability experience from July 1, 2013 through June 30, 2014 compared to the projected experience predicted by the actuarial assumptions as of June 30, 2013.

#### **Investment Rate of Return**

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on LACERS' investment policy. For valuation purposes, the assumed rate of return on the valuation value of assets is 7.75% (for the June 30, 2013 valuation). The actual rate of return on the valuation value of assets basis for the 2014 plan year was 8.56%.

Since the actual return for the year was more than the assumed return, LACERS experienced an actuarial gain during the year ended June 30, 2014 with regard to its investments.

This chart shows the gain/(loss) due to investment experience.

## CHART 10 Investment Experience for Year Ended June 30, 2014

		Market Value	Actuarial Value	Valuation Value
		(Includes assets for Retirement, Health, Family Death, and Larger Annuity Benefits)	(Includes assets for Retirement, Health, Family Death, and Larger Annuity Benefits)	(Includes assets for Retirement Only)
1.	Actual return	\$2,180,005,303	\$1,098,165,282	\$882,606,010
2.	Average value of assets	\$12,047,996,416	\$12,129,567,837	\$10,306,975,290
3.	Actual rate of return: $(1) \div (2)$	18.09%	9.05%	8.56%
4.	Assumed rate of return	7.75%	7.75%	7.75%
5.	Expected return: (2) x (4)	\$933,719,722	\$940,041,507	\$798,790,585
6.	Actuarial gain: $(1) - (5)$	<u>\$1,246,285,581</u>	<u>\$158,123,775</u>	<u>\$83,815,425</u>



Because actuarial planning is long term, it is useful to see how the assumed investment rate of return has followed actual experience over time. The chart below shows the rate of return on an actuarial basis compared to the market value investment return for the Retirement, Health, Family Death and Larger Annuity Benefits for the last ten years, including the five-year average.

CHART 11
Investment Return – Actuarial Value vs. Market Value: 2005 – 2014

	Net Interest and Dividend Income		Recognition of Capital Appreciation		Actuarial Value Investment Return		Market Value Investment Return	
Year Ended June 30	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
2005	\$235,062,628	2.96%	\$109,661,360	1.38%	\$344,723,988	4.34%	\$753,805,403	9.71%
2006	238,266,254	2.90%	430,034,467	5.24%	668,300,721	8.14%	1,041,664,291	12.34%
2007	261,677,229	2.95%	890,907,654	10.04%	1,152,584,883	12.99%	1,811,903,293	19.13%
2008	290,092,182	2.91%	752,500,487	7.53%	1,042,592,669	10.44%	-649,747,001	-5.78%
2009	237,249,377	2.17%	9,861,278	0.09%	247,110,655	2.26%	-2,125,637,471	-20.26%
2010	190,583,695	1.73%	71,009,369	0.64%	261,593,064	2.37%	1,049,769,484	12.79%
2011	211,685,408	1.91%	291,263,922	2.63%	502,949,330	4.54%	1,934,130,562	21.33%
2012	213,980,878	1.88%	290,831,650	2.55%	504,812,528	4.43%	67,093,447	0.62%
2013	253,877,178	2.17%	315,633,473	2.69%	569,510,651	4.86%	1,512,696,071	14.14%
2014	255,284,717	2.10%	842,880,565	6.95%	1,098,165,282	9.05%	2,180,005,303	18.09%
Total	\$2,387,759,546		\$4,004,584,225		\$6,392,343,771		\$7,575,683,382	
				Five-yea	ar average return	5.03%		13.17%
				Ten-yea	ar average return	6.29%		7.43%



Subsection B described the actuarial asset valuation method that gradually takes into account fluctuations in the market value rate of return. The effect of this is to stabilize the actuarial rate of return, which contributes to leveling pension plan costs.

This chart illustrates how this leveling effect has actually worked over the years 2005 - 2014.

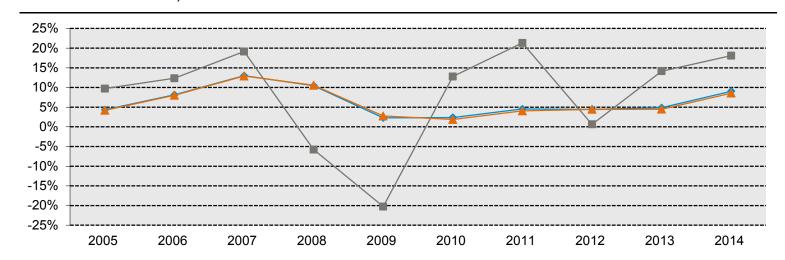
—■— Market Value

Actuarial Value

Valuation Value (Retirement Only)

CHART 12

Market Value, Actuarial Value, and Valuation Value (Retirement Only) Rates of Return for Years Ended June 30, 2005 - 2014





#### **Other Experience**

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include:

- > the extent of turnover among the participants,
- > retirement experience (earlier or later than expected),
- > mortality (more or fewer deaths than expected),
- > the number of disability retirements, and
- > salary increases different than assumed.

The net gain from this other experience for the year ended June 30, 2014 amounted to \$161,871,265 which is 1.00% of the actuarial accrued liability.

A brief summary of the demographic gain experience of LACERS for the year ended June 30, 2014 is shown in the chart below.

The chart shows elements of the experience gain/(loss) for the most recent year.

#### **CHART 13**

#### Experience Due to Changes in Demographics for Year Ended June 30, 2014

1. Loss due to higher than expected salary increases for continuing actives	\$(14,336,784)
2. Gain due to lower than expected COLA granted to retirees and beneficiaries	148,439,060
3. Miscellaneous gain	27,768,989
4. Net gain	\$161,871,265



#### D. RECOMMENDED CONTRIBUTION

The amount of annual contribution required to fund the Plan is comprised of an employer normal cost payment and a payment on the unfunded actuarial accrued liability. This total amount is then divided by the projected payroll for active members to determine the funding rate of 24.05% of payroll. We have continued to follow the method used in the June 30, 2005 valuation to adjust the contribution requirement if the GASB ARC minimum contribution is greater than the amount prescribed below. For 2014, the

beginning of year minimum GASB ARC is \$399.0 million, so no additional adjustment has been made to the recommended contributions.

As shown in item 1 below for the combined results, the total normal cost rate decreased from 17.17% on June 30, 2013 to 16.98% on June 30, 2014.

Voor Ended June 20

The chart compares this valuation's recommended contribution with the prior valuation.

## CHART 14 Recommended Contribution<sup>(1),(2)</sup>

		Year Ende	ea June 30	
	2014	ļ	2013	<b>.</b>
Tion 4		% of		% of
<u>Tier 1</u>	Amount	Payroll	Amount	Payroll
1. Total normal cost	\$317,309,773	17.13%	\$317,185,480	17.17%
2. Expected employee contributions <sup>(3)</sup>	-193,285,472	<u>-10.44%</u>	-190,396,531	<u>-10.31%</u>
3. Employer normal cost: (1) + (2)	\$124,024,301	6.69%	\$126,788,949	6.86%
4. Actuarial accrued liability	16,246,087,868		14,881,663,162	
5. Valuation value of assets	-10,942,188,982		-10,223,960,886	
6. Unfunded actuarial accrued liability	\$5,303,898,886		\$4,657,702,276	
7. Amortization of unfunded accrued liability	307,947,998	16.63% <sup>(4)</sup>	269,013,342	14.57%
8. Total recommended contribution, beginning of year: (3) + (7)	<u>\$431,972,299</u>	<u>23.32%</u>	\$395,802,291	<u>21.43%</u>
9. Total recommended contribution, July 15	<u>\$433,258,066</u>	<u>23.39%</u>	<u>\$397,018,296</u>	<u>21.50%</u>
10. Total recommended contribution, end of pay periods	<u>\$447,878,412</u>	<u>24.18%</u>	<u>\$410,853,455</u>	<u>22.24%</u>
11. Projected payroll	\$1,852,318,041		\$1,846,970,474	

<sup>(1)</sup> Both the June 30, 2014 and the June 30, 2013 contribution rates are <u>before</u> adjustments to phase in over five years the City contribution rate impact of new actuarial assumptions adopted as recommended in the June 30, 2011 Triennial Experience Study.

<sup>(4)</sup> In developing the UAAL contribution rate, we have combined the UAAL for Tier 1 and Tier 2 and amortized that total UAAL over the total payroll for Tier 1 and Tier 2.



<sup>&</sup>lt;sup>(2)</sup> June 30, 2014 contribution rates are <u>before</u> any adjustments that may be considered by the Board to phase in the City contribution rate impact of new actuarial assumptions adopted as recommended in the June 30, 2014 Triennial Experience Study.

Discounted to beginning of year. The average employee rate for contributions made at the end of each pay period is actually 10.71% for the June 30, 2013 valuation and 10.83% for the June 30, 2014 valuation. The increase in the average employee rate is mainly due to an increase in the proportion of Tier 1 employees paying the additional 4% employee contribution rate.

#### **CHART 14 (continued)**

#### **Recommended Contribution**(1),(2)

			Year End	ed June 30	
		2014	Ļ	2013	}
<u>Tier</u>	<ul> <li>Total normal cost</li> <li>Expected employee contributions<sup>(3)</sup></li> <li>Employer normal cost: (1) + (2)</li> <li>Actuarial accrued liability</li> <li>Valuation value of assets</li> <li>Unfunded actuarial accrued liability</li> <li>Amortization of unfunded accrued liability<sup>(5)</sup></li> <li>Total recommended contribution, beginning of year: (3) + (7)</li> <li>Total recommended contribution, July 15</li> <li>Total recommended contribution, end of pay periods</li> <li>Projected payroll</li> </ul>	Amount	% of Payroll	Amount	% of Payroll
1. 7	Total normal cost	\$5,070,478	11.08%	\$0	10.79%
2. I	Expected employee contributions <sup>(3)</sup>	<u>-4,409,266</u>	<u>-9.64%</u>	<u>-0</u>	<u>-9.63%</u>
3. I	Employer normal cost: $(1) + (2)$	\$661,212	1.44%	\$0	1.16%
4. <i>A</i>	Actuarial accrued liability	2,765,231		0	
5. V	Valuation value of assets	-2,561,592		<u>-0</u>	
6. U	Unfunded actuarial accrued liability	\$203,639		\$0	
7. A	Amortization of unfunded accrued liability <sup>(5)</sup>	7,605,298	16.63% <sup>(4)</sup>	0	14.57%
8. 7	Total recommended contribution, beginning of year: $(3) + (7)$	\$8,266,510	<u>18.07%</u>	<u>\$0</u>	<u>15.73%</u>
9. 7	Total recommended contribution, July 15	\$8,291,115	18.12%	<u>\$0</u>	15.77%
10. 7	Total recommended contribution, end of pay periods	\$8,570,900	18.74%	<u>\$0</u>	16.33%
11. I	Projected payroll	\$45,746,134		\$0	
Com	<u>nbined</u>				
1. 7	Total normal cost	\$322,380,251	16.98%	\$317,185,480	17.17%
2. I	Expected employee contributions	-197,694,738	-10.42%	-190,396,531	-10.31%
3. I	Employer normal cost: $(1) + (2)$	\$124,685,513	6.56%	\$126,788,949	6.86%
4. <i>A</i>	Actuarial accrued liability	16,248,853,099		14,881,663,162	
5. V	Valuation value of assets	-10,944,750,574		-10,223,960,886	
6. U	Unfunded actuarial accrued liability	\$5,304,102,525		\$4,657,702,276	
7. <i>I</i>	Amortization of unfunded accrued liability	315,553,296	16.63%	269,013,342	14.57%
8. 7	Total recommended contribution, beginning of year: $(3) + (7)$	\$440,238,809	<u>23.19%</u>	\$395,802,291	<u>21.43%</u>
9. 7	Total recommended contribution, July 15	\$441,549,181	23.26%	\$397,018,296	21.50%
10.	Total recommended contribution, end of pay periods	\$456,449,312	24.05%	\$410,853,455	22.24%
11. I	Projected payroll	\$1,898,064,175		\$1,846,970,474	<del></del>

<sup>(1)</sup> Both the June 30, 2014 and the June 30, 2013 contribution rates are <u>before</u> adjustments to phase in over five years the City contribution rate impact of new actuarial assumptions adopted as recommended in the June 30, 2011 Triennial Experience Study.

<sup>(4)</sup> In developing the UAAL contribution rate, we have combined the UAAL for Tier 1 and Tier 2 and amortized that total UAAL over the total payroll for Tier 1 and Tier 2.



Even though the City will be paying UAAL contributions based on the Tier 2 payroll, the contributions should be maintained on a bookkeeping basis as contributions made to the Tier 1 plan.

<sup>&</sup>lt;sup>(2)</sup> June 30, 2014 contribution rates are <u>before</u> any adjustments that may be considered by the Board to phase in the City contribution rate impact of new actuarial assumptions adopted as recommended in the June 30, 2014 Triennial Experience Study.

Discounted to beginning of year. The average employee rate for contributions made at the end of each pay period is actually 10.00% for the June 30, 2013 and June 30, 2014 valuations.

If paid by the City at the beginning of the year, the calculated normal cost (including expenses) is 6.56% of payroll for Tier 1 and Tier 2 combined. The remaining 16.63% of payroll will amortize the unfunded actuarial accrued liability over an equivalent single amortization period of about 25 years.

The contribution rates as of June 30, 2014 are based on all of the data described in the previous sections, the actuarial assumptions described in Section 4, and the Plan provisions adopted at the time of preparation of the Actuarial Valuation.

#### **Reconciliation of Recommended Contribution**

The chart below details the changes in the recommended contribution from the prior valuation to the current year's valuation.

The chart reconciles the contribution from the prior valuation to the amount determined in this valuation.

### CHART 15 Reconciliation of Recommended Contribution<sup>(1),(2)</sup> from June 30, 2013 to June 30, 2014

Recommended Contribution as of June 30, 2013	22.24%				
Effect of decrease in employer normal cost due to payroll and demographic changes (including the enrollment of new employees in Tier 2)	(0.27)%				
Effect of anticipated one-year delay in implementing the higher combined contribution rate calculated in the prior valuation	0.14%				
Effect of investment gain	(0.38)%				
Effect of amortizing prior year's UAAL over a smaller than expected projected total payroll	0.20%				
Effect of higher than expected salary increases for actives	0.07%				
Effect of lower than expected COLA granted to retirees and beneficiaries	(0.67)%				
Effect of other gains on accrued liability	(0.13)%				
Effect of changes in actuarial assumptions	<u>2.85%</u>				
Total change					
Recommended Contribution as of June 30, 2014	24.05%				

<sup>(1)</sup> Based on contributions at the end of each pay period. The rates are <u>before</u> adjustments to phase in over five years the impact of the actuarial assumptions as a result of the June 30, 2011 Triennial Experience Study.

June 30, 2014 contribution rates are <u>before</u> any adjustments that may be considered by the Board to phase in the City contribution rate impact of new actuarial assumptions adopted as recommended in the June 30, 2014 Triennial Experience Study.

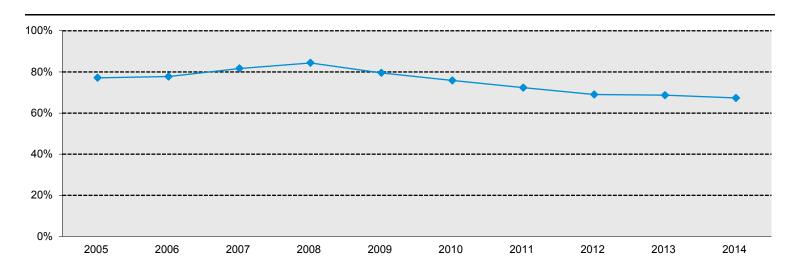


#### E. FUNDED RATIO

A critical piece of information regarding the Plan's financial status is the funded ratio. This ratio compares the actuarial value of assets to the actuarial accrued liabilities of the Plan as calculated. High ratios indicate a well-funded plan with assets sufficient to cover the plan's actuarial accrued liabilities. Lower ratios may indicate recent changes to benefit structures, funding of the plan below actuarial requirements, poor asset performance, or a variety of other factors.

The chart below depicts a history of the funded ratios for this plan.

CHART 16
Funded Ratio for Plan Years Ending June 30, 2005 - 2014





#### F. VOLATILITY RATIOS

Retirement plans are subject to volatility in the level of required contributions. This volatility tends to increase as retirement plans become more mature.

The Asset Volatility Ratio (AVR), which is equal to the market value of assets divided by total payroll, provides an indication of the potential contribution volatility for any given level of investment volatility. A higher AVR indicates that the plan is subject to a greater level of contribution volatility. This is a current measure since it is based on the current level of assets.

For LACERS, the current AVR is about 6.2. This means that a 1% asset gain/(loss) (relative to the assumed investment return) translates to about 6.2% of one-year's payroll. Since LACERS amortizes actuarial gains and losses over a period of 15 years, there would be a 0.5% of payroll decrease/(increase) in the required contribution for each 1% asset gain/(loss).

The Liability Volatility Ratio (LVR), which is equal to the Actuarial Accrued Liability divided by payroll, provides an indication of the longer-term potential for contribution volatility for any given level of investment volatility. This is because, over an extended period of time, the plan's assets should track the plan's liabilities. For example, if a plan is 50% funded on a market value basis, the liability volatility ratio would be double the asset volatility ratio and the plan sponsor should expect contribution volatility to increase over time as the plan becomes better funded.

The LVR also indicates how volatile contributions will be in response to changes in the Actuarial Accrued Liability due to actual experience or to changes in actuarial assumptions.

For LACERS, the current LVR is about 8.6. This is about 39% higher than the AVR. Therefore, we would expect that contribution volatility will increase over the long-term.

This chart shows how the asset and liability volatility ratios have varied over time.

CHART 17
Volatility Ratios for Years Ended June 30, 2008 – 2014

Asset Volatility Ratio	<b>Liability Volatility Ratio</b>
3.8	6.5
4.3	6.9
5.0	7.3
5.0	7.9
5.5	8.1
6.2	8.6
	3.8 4.3 5.0 5.0 5.5



SECTION 3: Supplemental Information for the Los Angeles City Employees' Retirement System

EXHIBIT A

Table of Plan Coverage

i. Tier 1

	Year End	ded June 30	Change From
Category	2014	2013	Prior Year
Active members in valuation:			
Number	23,254	24,441	-4.9%
Average age	49.2	48.3	N/A
Average service	15.5	14.5	N/A
Projected total payroll*	\$1,852,318,041	\$1,846,970,474	0.3%
Projected average payroll*	\$79,656	\$75,569	5.4%
Account balances	\$1,779,024,865	\$1,652,402,923	7.7%
Total active vested members	21,784	21,901	-0.5%
Inactive members:			
Number	5,981	5,799	3.1%
Average age	44.6	44.3	N/A
Average contribution balance for those with under 5 years of service	\$5,047	\$4,732	6.7%
Average monthly benefit at age 60 for those with 5 or more years of service**	\$1,461	\$1,388	5.3%
Retired members:			
Number in pay status	12,880	12,771	0.9%
Average service at retirement	26.7	26.8	N/A
Average age at retirement	60.1	60.1	N/A
Average age	71.8	71.5	N/A
Average monthly benefit (includes July COLA)	\$3,936	\$3,885	1.3%
Disabled members:			
Number in pay status	900	898	0.2%
Average service at retirement	11.9	12.0	N/A
Average age at retirement	46.4	46.0	N/A
Average age	64.5	64.1	N/A
Average monthly benefit (includes July COLA)	\$1,593	\$1,570	1.5%
Beneficiaries:			
Number in pay status	3,752	3,693	1.6%
Average age	76.4	76.2	N/A
Average monthly benefit (includes July COLA)	\$2,020	\$1,958	3.2%

<sup>\*</sup> Reflects annualized salaries for part-time members.

<sup>\*\*</sup> Based on salary at termination from LACERS.



EXHIBIT A

Table of Plan Coverage

#### i. Tier 2

	Year Ended	d June 30	Change From
Number Average age Average service Projected total payroll* Projected average payroll* Account balances Total active vested members  Mactive members: Number Average age Average contribution balance for those with under 5 years of service Average monthly benefit at age 60 for those with 5 or more years of service  etired members: Number in pay status Average service at retirement Average age at retirement Average age Average monthly benefit (includes July COLA)  isabled members: Number in pay status Average service at retirement Average age Average monthly benefit (includes July COLA)  etired  etired	2014	2013	Prior Year
Active members in valuation:			
Number	755	0	N/A
Average age	35.2	N/A	N/A
Average service	0.5	N/A	N/A
Projected total payroll*	\$45,746,134	N/A	N/A
Projected average payroll*	\$60,591	N/A	N/A
Account balances	\$2,321,012	N/A	N/A
Total active vested members	3	N/A	N/A
Inactive members:			
Number	50	0	N/A
Average age	35.6	N/A	N/A
Average contribution balance for those with under 5 years of service	\$1,337	N/A	N/A
Average monthly benefit at age 60 for those with 5 or more years of service**	\$0	N/A	N/A
Retired members:			
Number in pay status	0	0	N/A
Average service at retirement	N/A	N/A	N/A
Average age at retirement	N/A	N/A	N/A
Average age	N/A	N/A	N/A
Average monthly benefit (includes July COLA)	N/A	N/A	N/A
Disabled members:			
Number in pay status	0	0	N/A
Average service at retirement	N/A	N/A	N/A
Average age at retirement	N/A	N/A	N/A
Average age	N/A	N/A	N/A
Average monthly benefit (includes July COLA)	N/A	N/A	N/A
Beneficiaries:			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit (includes July COLA)	N/A	N/A	N/A

<sup>\*</sup> Reflects annualized salaries for part-time members.

<sup>\*\*</sup> Based on salary at termination from LACERS.



EXHIBIT B
Members in Active Service as of June 30, 2014
By Age, Years of Service, and Average Payroll

i. Tier 1

	Years of Service									
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	80	74	6							
	\$45,394	\$44,978	\$50,525							
25 - 29	779	350	426	3						
	54,320	51,021	57,074	\$48,152						
30 - 34	1,807	296	1,185	321	5					
	67,824	59,566	69,893	67,891	\$62,008					
35 - 39	2,418	168	1,131	935	172	12			20 82,181 406 12 90,666 \$110,630 377 86 98,223 92,815 158 87 97,578 101,594 54 28 93,947 98,804 26 18	
	75,844	64,205	74,396	78,947	79,465	\$81,499				
40 - 44	2,845	135	961	1,016	549	166	18			
	78,990	65,113	71,911	80,922	88,278	88,429	\$81,710			
45 - 49	3,645	142	830	901	586	611	555	20		
	82,667	66,511	70,362	78,307	89,028	98,168	88,514	\$82,181		
50 - 54	4,530	130	765	835	556	637	1,189	406	12	
	85,468	63,796	70,111	77,586	86,358	92,971	96,790	90,666	\$110,630	
55 - 59	3,546	97	600	694	360	478	847	377	86	7
	84,817	65,242	68,890	75,293	81,677	92,135	96,470	98,223	92,815	\$96,829
60 - 64	2,209	49	413	497	260	247	470	158	87	28
	82,806	66,158	68,843	74,255	85,703	90,239	90,362	97,578	101,594	108,632
65 - 69	948	31	169	237	134	98	169	54	28	28
	77,238	65,707	58,464	67,972	83,366	85,017	86,552	93,947	98,804	115,206
70 & over	447	19	97	109	51	41	73	26	18	13
	67,796	36,436	50,362	62,743	73,225	78,466	76,248	90,176	84,011	116,462
Total	23,254	1,491	6,583	5,548	2,673	2,290	3,321	1,041	231	76
	\$79,656	\$59,310	\$69,460	\$76,679	\$85,754	\$92,899	\$93,361	\$94,447	\$97,087	\$111,306



EXHIBIT B
Members in Active Service as of June 30, 2014
By Age, Years of Service, and Average Payroll

ii. Tier 2

					Years of S	Service								
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over				
Under 25	117	117												
	\$44,340	\$44,340												
25 - 29	198	198												
	49,978	49,978												
30 - 34	145	145												
	61,979	61,979												
35 - 39	82	82												
	64,174	64,174												
40 - 44	76	76												
	72,270	72,270												
45 - 49	42	42												
	81,229	81,229												
50 - 54	33	33												
	83,536	83,536												
55 - 59	37	36		1										
	72,928	68,814		\$221,051										
60 - 64	17	17												
	84,523	84,523												
65 - 69	7	7												
	81,491	81,491												
70 & over	1	1												
	47,036	47,036												
Total	755	754		1										
	\$60,591	\$60,378		\$221,051										



EXHIBIT C
Reconciliation of Member Data

	Active Members	Inactive Members	Disableds	Retired Members	Beneficiaries	Total
Number as of June 30, 2013	24,441	5,799	898	12,771	3,693	47,602
New members	775	N/A	N/A	N/A	N/A	775
Terminations – with vested rights	-791	791	0	0	0	0
Retirements	-434	-110	N/A	544	N/A	0
New disabilities	-6	-33	39	N/A	N/A	0
Died with beneficiary	N/A	N/A	N/A	N/A	248	248
Deaths or benefits expired	-46	-78	-36	-435	-189	-784
Refund of members contributions	-196	-123	0	0	0	-319
Rehired	266	-265	-1	0	N/A	0
Data adjustments	_0	<u>50*</u>	0	0	0	<u>50</u>
Number as of June 30, 2014	24,009	6,031	900	12,880	3,752	47,572

<sup>\*</sup> Includes members who were both hired and terminated during the year.

Note: For the change in the annual benefits from the retirees and beneficiaries added to and removed from the rolls, refer to Exhibit D of the supplemental schedules that accompany this report.

SECTION 3: Supplemental Information for the Los Angeles City Employees' Retirement System

EXHIBIT D
Summary Statement of Income and Expenses on an Actuarial Value Basis for Retirement, Health, Family Death, and Larger Annuity Benefits

	June 3	0, 2014	June 3	0, 2013
Contribution income:				
Employer contributions	\$455,658,786		\$419,266,581	
Employee contributions	204,135,914		197,880,631	
Net contribution income		\$659,794,700		\$617,147,212
Investment income:				
Interest, dividends and other income	\$297,102,305		\$291,462,597	
Recognition of capital appreciation	842,880,565		315,633,473	
Less investment and administrative fees	<u>-41,817,589</u>		<u>-37,585,419</u>	
Net investment income		\$1,098,165,281		\$569,510,651
Total income available for benefits		\$1,757,959,981		\$1,186,657,863
Less benefit payments:				
Payment of benefits	-\$810,584,271		-\$785,308,070	
Refunds of contributions	<u>-15,982,650</u>		<u>-17,697,282</u>	
Net benefit payments		-\$826,566,921		-\$803,005,352
Change in reserve for future benefits		\$931,393,060		\$383,652,511

Note: Results may be slightly off due to rounding.



EXHIBIT E
Summary Statement of Assets for Retirement, Health, Family Death, and Larger Annuity Benefits

	June 3	30, 2014	June 3	30, 2013
Cash equivalents		\$681,628,644		\$606,604,488
Accounts receivable:				
Investment income	\$41,214,524		\$38,025,127	
Proceeds from sales	166,513,233		1,688,400,219	
Other	14,362,275		<u>8,321,633</u>	
Total accounts receivable		\$222,090,032		\$1,734,746,979
Investments:				
Fixed Income	\$2,860,598,505		\$2,655,956,957	
Equities	8,617,236,944		7,078,720,385	
Real Estate and Alternative Investment	1,967,891,805		1,889,238,399	
Other	1,037,019,541		1,157,199,068	
Total investments at market value		\$14,482,746,795		\$12,781,114,809
Capital assets		\$2,667,881		\$1,318,307
Total assets		\$15,389,133,352		\$15,123,784,583
Less accounts payable:				
Accounts payable and accrued expenses	-\$17,879,799		-\$56,204,879	
Accrued investment expense	-11,993,596		-	
Derivative instruments	-		-18,518	
Purchases of investments	-400,955,915		-1,989,039,830	
Security lending collateral	-1,022,532,044		<u>-1,155,982,440</u>	
Total accounts payable		-\$1,453,361,354		-\$3,201,245,667
Net assets at market value		<u>\$13,935,771,998</u>		\$11,922,538,917
Net assets at actuarial value		<u>\$12,935,503,398</u>		\$12,004,110,338
Net assets at valuation value (retirement benefits)		\$10,944,750,574		\$10,223,960,886

Note: Results may be slightly off due to rounding.



EXHIBIT F

Development of the Fund Through June 30, 2014 for Retirement, Health, Family Death, and Larger Annuity Benefits

Year Ended June 30	Employer Contributions	Employee Contributions	Net Investment Return*	Benefit Payments	Actuarial Value of Assets at End of Year
2009	\$383,637,842	\$118,592,071	\$247,110,655	\$605,798,000	\$10,949,384,202
2010	362,751,146	126,961,295	261,593,064	681,106,189	11,019,583,518
2011	414,133,032	114,731,434	502,949,330	770,755,578	11,280,641,736
2012	423,920,740	178,246,151	504,812,528	767,163,328	11,620,457,827
2013	419,266,581	197,880,631	569,510,651	803,005,352	12,004,110,338
2014	455,658,786	204,135,914	1,098,165,281	826,566,921	12,935,503,398

<sup>\*</sup> Net of investment fees and administrative expenses.



#### **EXHIBIT G**

#### Development of Unfunded Actuarial Accrued Liability for Year Ended June 30, 2014

Unfunded actuarial accrued liability at beginning of year	\$4,657,702,276
2. Normal cost at beginning of year	317,185,480
3. Total actual contributions	(561,624,508)
4. Interest	<u>351,086,853</u>
5. Expected unfunded actuarial accrued liability	\$4,764,350,101
6. Changes due to net experience gain*	(245,686,690)
7. Changes due to new actuarial assumptions	<u>785,439,114</u>
8. Unfunded actuarial accrued liability at end of year	<u>\$5,304,102,525</u>

<sup>\*</sup> Excludes a \$30,136,798 loss from contributions less than anticipated due to scheduled one-year delay in implementing the higher contribution rate calculated in the June 30, 2013 valuation. That loss is already included in the development of item 5.

The breakdown of the net experience gain is as follows:

Investment gain	\$(83,815,425)
Loss due to higher than expected salary increases for continuing actives	14,336,784
Gain due to lower than expected COLA granted to retirees and beneficiaries	(148,439,060)
Miscellaneous gain	<u>(27,768,989)</u>
Total gain	\$(245.686.690)



EXHIBIT H
Table of Amortization Bases

Туре	Date Established	Initial Years	Initial Amount	Outstanding Balance	Years Remaining	Annual Payment*
Plan amendment (2009 ERIP)	06/30/2009	15	\$300,225,354	\$266,671,953	10	\$30,810,906
Combined base	06/30/2012	30	4,173,548,280	4,352,922,132	28	234,570,463
Experience loss	06/30/2013	15	116,022,989	114,619,218	14	10,062,564
Experience gain	06/30/2014	15	-215,549,892	-215,549,892	15	-17,932,903
Change in assumptions	06/30/2014	20	785,439,114	785,439,114	20	52,815,882
Subtotal before GASB amount				\$5,304,102,525		\$310,326,912
40-year minimum GASB 25/27	06/30/2004	15	29,189,615	17,269,782	5	3,686,306
40-year minimum GASB 25/27	06/30/2005	15	12,708,684	8,520,202	6	1,540,078
Total				\$5,329,892,509		\$315,553,296

<sup>\*</sup> Beginning of year payments, based on level percentage of payroll.

Note: The equivalent single amortization period is about 25 years.

#### **EXHIBIT I**

#### **Section 415 Limitations**

Section 415 of the Internal Revenue Code (IRC) specifies the maximum benefits that may be paid to an individual from a defined benefit plan and the maximum amounts that may be allocated each year to an individual's account in a defined contribution plan.

A qualified pension plan may not pay benefits in excess of the Section 415 limits. The ultimate penalty for noncompliance is disqualification: active participants could be taxed on their vested benefits and the IRS may seek to tax the income earned on the plan's assets.

In particular, Section 415(b) of the IRC limits the maximum annual benefit payable at the Normal Retirement Age to a dollar limit of \$160,000 indexed for inflation. That limit is \$210,000 for 2014 and 2015. Normal Retirement Age for these purposes is age 62. These are the limits in simplified terms. They must be adjusted based on each participant's circumstances, for such things as age at retirement, form of benefits chosen and after tax contributions

Benefits in excess of the limits may be paid through a qualified governmental excess plan that meets the requirements of Section 415(m).

Legal Counsel's review and interpretation of the law and regulations should be sought on any questions in this regard.

Contribution rates determined in this valuation have not been reduced for the Section 415 limitations. Actual limitations will result in gains as they occur.

#### **EXHIBIT J**

#### **Definitions of Pension Terms**

The following list defines certain technical terms for the convenience of the reader:

# Assumptions or Actuarial Assumptions:

The estimates on which the cost of the Plan is calculated including:

- (a) <u>Investment return</u> the rate of investment yield that the Plan will earn over the long-term future;
- (b) <u>Mortality rates</u> the death rates of employees and pensioners; life expectancy is based on these rates;
- (c) <u>Retirement rates</u> the rate or probability of retirement at a given age; and
- (d) <u>Turnover rates</u> the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.

#### **Normal Cost:**

The amount of contributions required to fund the benefit allocated to the current year of service.

# Actuarial Accrued Liability For Actives:

The equivalent of the accumulated normal costs allocated to the years before the valuation date.

# Actuarial Accrued Liability For Pensioners:

The single sum value of lifetime benefits to existing pensioners. This sum takes account of life expectancies appropriate to the ages of the pensioners and the interest that the sum is expected to earn before it is entirely paid out in benefits.

# **Unfunded Actuarial Accrued Liability:**

The extent to which the actuarial accrued liability of the Plan exceeds the assets of the Plan. There is a wide range of approaches to paying off the unfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.



Amortization of the Unfunded Actuarial Accrued Liability:

Payments made over a period of years equal in value to the Plan's unfunded actuarial

accrued liability.

**Investment Return:** The rate of earnings of the Plan from its investments, including interest, dividends and

market gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the market gains and losses to avoid significant swings in the value of assets from one

year to the next.

Su	mmary of Actuarial Valuation Results		
Th	e valuation was made with respect to the following data supplied to us:		
1.	Retired members as of the valuation date (including 3,752 beneficiaries in pay status)		17,532
2.	Inactive members during year ended June 30, 2014 (including 4,191 members with under 5 years of service eligible for a refund of contributions)		6,031
3.	Members active during the year ended June 30, 2014		24,009
	Fully vested	21,787	
	Not vested	2,222	
Th	e actuarial factors as of the valuation date are as follows:		
	Assets		
1.	Valuation value of assets (\$13,935,771,998 at market value and \$12,935,503,398 at actuarial value as reported by LACERS*)		\$10,944,750,574
2.	Present value of future normal costs		
	Employee	\$1,657,090,814	
	Employer	1,008,613,000	
	Total		2,665,703,814
3.	Unfunded actuarial accrued liability		5,304,102,525
4.	Present value of current and future assets		\$18,914,556,913
	Liabilities		
5.	Present value of future benefits		
	Retired members and beneficiaries	\$8,504,410,789	
	Inactive members	315,207,699	
	Active members	10,094,938,425	
	Total		\$18,914,556,913

<sup>\*</sup> Market value and actuarial value of assets include assets for Retirement, Health, Family Death, and Larger Annuity Benefits.



#### **EXHIBIT I (continued)**

# Summary of Actuarial Valuation Results<sup>(1),(2)</sup>

The determination of the recommended contribution is as follows:

		<u>Tier 1</u>	<u>Tier 2</u>	<b>Combined</b>
1.	Total normal cost	\$317,309,773	\$5,070,478	\$322,380,251
2.	Expected employee contributions <sup>(3)</sup>	193,285,472	<u>-4,409,266</u>	<u>-197,694,738</u>
3.	Employer normal cost: $(1) + (2)$	\$124,024,301	\$661,212	\$124,685,513
4.	Payment on projected unfunded actuarial accrued liability	\$307,947,998	\$7,605,298	\$315,553,296
5.	Total recommended contribution: (3) + (4), payable beginning of year	<u>\$431,972,299</u>	<u>\$8,266,510</u>	<u>\$440,238,809</u>
6.	Total recommended contribution: adjusted for July 15 payment	<u>\$433,258,066</u>	<u>\$8,291,115</u>	<u>\$441,549,181</u>
7.	Total recommended contribution: adjusted for biweekly payment	<u>\$447,878,412</u>	<u>\$8,570,900</u>	<u>\$456,449,312</u>
8.	Projected payroll	\$1,852,318,041	\$45,746,134	\$1,898,064,175
9.	Item 5 as a percentage of projected payroll: (5) ÷ (8)	23.32%	18.07%	23.19%
10.	Item 6 as a percentage of projected payroll: (6) ÷ (8)	23.39%	18.12%	23.26%
11.	Item 7 as a percentage of projected payroll: $(7) \div (8)$	24.18%	18.74%	24.05%

<sup>(1)</sup> The contribution rates for the June 30, 2014 valuation are <u>before</u> adjustments to phase in over five years the City contribution rate impact of the actuarial assumptions adopted as recommended in the June 30, 2011 Triennial Experience Study.



<sup>&</sup>lt;sup>(2)</sup> June 30, 2014 contribution rates are <u>before</u> any adjustments that may be considered by the Board to phase in the City contribution rate impact of new actuarial assumptions adopted as recommended in the June 30, 2014 Triennial Experience Study.

<sup>(3)</sup> Discounted to beginning of year.

EXHIBIT II
History of Employer Contributions

Plan Year Ended June 30	Actuarially Determined Employer Contributions (ADEC)*	Actual Contributions	Percentage Contributed
2005	\$183,241,489	\$158,131,638	86.30%
2006	227,740,600	227,740,600	100.00%
2007	277,516,400	277,516,400	100.00%
2008	288,119,041	288,119,041	100.00%
2009	274,554,786	274,554,786	100.00%
2010	258,642,795	258,642,795	100.00%
2011	303,560,953	303,560,953	100.00%
2012	308,539,905	308,539,905	100.00%
2013	346,180,852	346,180,852	100.00%
2014	357,649,232	357,649,232	100.00%

<sup>\*</sup> Prior to plan year ending June 30, 2014, this amount was the Annual Required Contribution (ARC).



EXHIBIT III
Schedule of Funding Progress

Actuarial Valuation Date	Valuation Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded/ (Overfunded) AAL (UAAL) (b) - (a)	Funded Ratio (a) / (b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b) - (a)] / (c)
06/30/2005	\$7,193,142,227	\$9,321,524,967	\$2,128,382,740	77.17%	\$1,589,305,846	133.92%
06/30/2006	7,674,999,374	9,870,662,387	2,195,663,013	77.76%	1,733,339,536	126.67%
06/30/2007	8,599,699,772*	10,526,874,184	1,927,174,412	81.69%	1,896,609,013	101.61%
06/30/2008	9,438,318,300	11,186,403,741	1,748,085,441	84.37%	1,977,644,640	88.39%
06/30/2009	9,577,747,421	12,041,983,936	2,464,236,515	79.54%	1,816,171,212	135.68%
06/30/2010	9,554,027,411	12,595,025,119	3,040,997,708	75.86%	1,817,662,284	167.30%
06/30/2011	9,691,011,496	13,391,704,000	3,700,692,504	72.37%	1,833,392,381	201.85%
06/30/2012	9,934,959,310	14,393,958,574	4,458,999,264	69.02%	1,819,269,630	245.10%
06/30/2013	10,223,960,886	14,881,663,162	4,657,702,276	68.70%	1,846,970,474	252.18%
06/30/2014	10,944,750,574	16,248,853,099	5,304,102,525	67.36%	1,898,064,175	279.45%

<sup>\*</sup> Valuation value of assets is after excluding \$5,269,481 of discounted Harbor Port Police assets transferred in October 2007.



#### **EXHIBIT IV**

#### Supplementary Information Required by the GASB

Valuation date	June 30, 2014		
Actuarial cost method	Entry Age Cost Method, level percent of salary		
Amortization method	Level percent of payroll – assuming a 4.00% increase in total covered payroll.		
Amortization period	Multiple layers, closed amortization periods. Actuarial gains/losses are amortized over 15 years. Assumption or method changes are amortized over 20 years. Plan changes, including the 2009 ERIP, are amortized over 15 years. Future ERIPs will be amortized over 5 years. Actuarial surplus is amortized over 30 years. The existing layers on June 30, 2012, except those arising from the 2009 ERIP and the two GASB 25/27 layers, were combined and amortized over 30 years.		
Asset valuation method	Market value of assets less unrecognized returns in each of the last seven years. Unrecognized return is equal to the difference between the actual market return and the expected return on the market value, and is recognized over a seven-year period. The actuarial value of assets cannot be less than 60% or greater than 140% of the market value of assets.		
Actuarial assumptions:			
Investment rate of return	7.50%		
Inflation rate	3.25%		
Real across-the-board salary increase	0.75%		
Projected salary increases	Ranges from 10.50% to 4.40%.		
Cost of living adjustments	3.00% for Tier 1; 2.00% for Tier 2		
Plan membership:			
Retired members and beneficiaries receiving benefits	17,532		
Inactive members*	6,031		
Active members	<u>24,009</u>		
Total	47,572		

<sup>\*</sup> Either non-vested and entitled to a refund of member contributions or vested with a right to a deferred or immediate benefit.



EXHIBIT V

Development of the Net Pension Obligation and the Annual Pension Cost Pursuant to GASB 27

Plan Year Ended June 30	Employer Annual Required Contribution (a)	Employer Amount Contributed (b)	Interest on NPO (h) x .08 (or .0775)* (c)	ARC Adjustment with Interest (h) / (e) x 1.08 (or 1.0775)* (d)	Amortization Factor (e)	Pension Cost (a) + (c) – (d) (f)	Change in NPO (f) – (b) (g)	NPO Balance Prior NPO + (g) (h)
2009	\$274,554,786	\$274,554,786	\$6,397,727	\$8,620,578	10.2384	\$272,331,935	\$(2,222,851)	\$77,748,734
2010**	258,642,795	258,642,795	6,219,899	8,863,501	9.7444	255,999,193	(2,643,602)	75,105,132
2011	303,560,953	303,560,953	6,008,410	9,240,200	9.0873	300,329,163	(3,231,790)	71,873,342
2012	308,539,905	308,539,905	5,749,868	9,632,908	8.4205	304,656,865	(3,883,040)	67,990,302
2013	346,180,852	346,180,852	5,269,248	9,939,221	7.7917	341,510,879	(4,669,973)	63,320,329
2014	357,649,232	357,649,232	4,907,325	6,942,672	10.5521	355,613,885	(2,035,346)	61,284,983

<sup>\* 8.00%</sup> was the interest rate before the change to 7.75% as adopted by the Board in the June 30, 2011 valuation for the 2012/2013 Fiscal Year.

<sup>\*\*</sup> The calculation of the NPO has been adjusted to reflect the 4.25% total payroll growth assumption, which was adopted by the Board for fiscal year 2009/2010 funding requirements.

#### **EXHIBIT VI**

#### **Actuarial Assumptions and Actuarial Cost Method**

#### **Post-Retirement Mortality Rates:**

Healthy Members and All Beneficiaries: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020,

set back one year for males and with no setback for females.

Disabled Members: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020,

set forward seven years for males and set forward eight years for females.

The tables shown above were determined to contain sufficient provision appropriate to reasonably reflect future mortality improvement, based on a review of mortality experience as of the measurement date.

#### **Termination Rates Before Retirement:**

55

60

Pre-Retirement Mortality: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020,

**Rate (%)** 

set back one year for males and with no setback for females.

2.35

2.25

Age	Disability	Termination*
25	0.01	5.75
30	0.03	5.75
35	0.05	4.85
40	0.09	3.50
45	0.15	2.70
50	0.19	2.50

0.20

0.20



<sup>\*</sup> Rates for members with five or more years of service. Termination rates are zero for members eligible to retire.

Rates of termination for members with less than 5 years of service are as follows:

	Rate (%)
Service	Termination (Based on Service)
0	13.25
1	11.00
2	8.75
3	7.25
4	5.75

Retirement Rates: Rate (%)

	Tier 1		Tier	2
Age	Non-55/30	55/30	Non-55/30	55/30
50	6.0	0.0	0.0	0.0
51	3.0	0.0	0.0	0.0
52	3.0	0.0	0.0	0.0
53	3.0	0.0	0.0	0.0
54	16.0	0.0	0.0	0.0
55	6.0	20.0	3.5	8.0
56	6.0	14.0	3.5	7.0
57	6.0	14.0	3.5	7.0
58	6.0	14.0	3.5	7.0
59	6.0	14.0	3.5	7.0
60	6.0	14.0	5.5	7.0
61	6.0	14.0	5.5	9.0
62	7.0	15.0	5.5	11.0
63	7.0	15.0	5.5	13.0
64	7.0	16.0	5.5	16.0
65	12.0	17.0	12.0	19.0
66	12.0	17.0	12.0	19.0
67	12.0	17.0	12.0	19.0
68	12.0	17.0	12.0	19.0
69	12.0	17.0	12.0	19.0
70	100.0	100.0	100.0	100.0



Retirement Age and Benefit for

**Inactive Vested Participants:** Pension benefit paid at the later of age 58 or the current attained age.

For reciprocals, 4.40% compensation increases per annum.

**Exclusion of Inactive Members:** All inactive participants are included in the valuation.

**Definition of Active Members:** First day of biweekly payroll following employment for new department employees or

immediately following transfer from other city department.

**Unknown Data for Members:** Same as those exhibited by members with similar known characteristics. If not

specified, members are assumed to be male.

**Percent Married/Domestic Partner:** 76% of male participants; 50% of female participants.

**Age of Spouse:** Male retirees are assumed to be 4 years older than their female spouses. Female

retirees are assumed to be 2 years younger than their male spouses.

**Service:** Employment service is used for eligibility determination purposes. Benefit service is

used for benefit calculation purposes.

Future Benefit Accruals: 1.0 year of service per year.

**Other Reciprocal Service:** 5% of future inactive vested members will work at a reciprocal system.

Consumer Price Index: Increase of 3.25% per year; benefit increases due to CPI subject to 3.00% maximum

for Tier 1 and 2.00% maximum for Tier 2.

**Employee Contribution** 

**Crediting Rate:** Based on average of 5-year Treasury note rate. An assumption of 3.25% is used to

approximate that crediting rate in this valuation.

Net Investment Return: 7.50%



**Salary Increases:** 

Inflation: 3.25%; plus additional 0.75% "across the board" salary increases (other than inflation); plus the following merit and promotional increases:

Service	Percentage Increase	
0	6.50%	
1	6.20%	
2	5.10%	
3	3.10%	
4	2.10%	
5	1.10%	
6	1.00%	
7	0.90%	
8	0.70%	
9	0.60%	
10+	0.40%	

**Actuarial Value of Assets:** 

The market value of assets less unrecognized returns in each of the last seven years. Unrecognized return is equal to the difference between the actual and expected returns on a market value basis and is recognized over a seven year period. The actuarial value of assets cannot be less than 60% or greater than 140% of the market value of assets.

Actuarial Cost Method:	Entry Age Cost Method.
Funding Policy:	The plan sponsor of the City of Los Angeles Employees' Retirement System makes contributions equal to the normal cost adjusted by an amount to amortize any surplus or unfunded actuarial accrued liability. Both the normal cost and the actuarial accrued liability are determined under the Entry Age cost method and are calculated on an individual basis. Entry age is calculated as age on the valuation date minus years of service.
	Under the current funding policy, changes in the UAAL due to actuarial gains/losses are amortized over separate 15 year periods. Any changes in the UAAL due to assumption or method changes are amortized over separate 20 year periods. Plan changes, including the 2009 ERIP, are amortized over separate 15 year periods. Future ERIPs will be amortized over 5 years. Any actuarial surplus is amortized over 30 years. All the bases on or before June 30, 2012, except those arising from the 2009 ERIP and the two GASB 25/27 layers, were combined and amortized over 30 years effective June 30, 2012.
	The recommended contribution is set equal to the greater of the current funding policy or the minimum Annual Required Contribution (ARC) as determined by the then current GASB Statements 25 and 27. In particular, an additional contribution due to the application of the 40-year minimum amortization requirement for both fiscal year 2003/2004 and fiscal year 2004/2005 is included in the calculation of the recommended contribution.
<b>Changes in Actuarial Assumptions:</b>	Based on the June 30, 2014 Actuarial Experience Study, the following actuarial assumptions were changed. Previously, these assumptions were as follows:
<b>Post-Retirement Mortality Rates:</b>	
Healthy Members and All Beneficiaries:	RP-2000 Combined Healthy Mortality Table, set back two years for males and set back one year for females.
Disabled Members:	RP-2000 Combined Healthy Mortality Table, set forward five years for males and set forward six years for females.



#### **Changes in Actuarial Assumptions (continued):**

#### **Termination Rates Before Retirement:**

*Pre-Retirement Mortality:* 

RP-2000 Combined Healthy Mortality Table, set back two years for males and set back one year for females.

	Rate (%)		
Age	Termination*		
25	5.50		
30	5.35		
35	4.35		
40	3.15		
45	2.30		
50	1.85		
55	1.75		
60	1.75		

<sup>\*</sup> Rates for members with five or more years of service. Termination rates are zero for members eligible to retire.

Rates of termination for members with less than 5 years of service are as follows:

	Rate (%)	
Service	Termination (Based on Service)	
0	11.25	
1	8.00	
2	7.25	
3	6.25	
4	5.50	

#### **Changes in Actuarial Assumptions (continued):**

#### **Retirement Rates:**

	Rate	(%)
	Tier	1
Age	Non-55/30	55/30
50	8.0	0.0
51	4.0	0.0
52	4.0	0.0
53	4.0	0.0
54	15.0	0.0
55	8.0	20.0
56	8.0	15.0
57	8.0	15.0
58	8.0	15.0
59	8.0	15.0
60	8.0	15.0
61	8.0	16.0
62	8.0	17.0
63	8.0	18.0
64	8.0	19.0
65	13.0	20.0
66	13.0	20.0
67	13.0	20.0
68	13.0	20.0
69	13.0	20.0
70	100.0	100.0

Retirement Age and Benefit for Inactive Vested Participants:

Pension benefit paid at the later of age 57 or the current attained age. For reciprocals, 4.65% compensation increases per annum.



#### **Changes in Actuarial Assumptions (continued):**

**Age of Spouse:** Female spouses 3 years younger than their spouses.

**Other Reciprocal Service:** 10% of future inactive vested members will work at a reciprocal system.

Consumer Price Index: Increase of 3.50% per year; benefit increases due to CPI subject to 3.00% maximum

for Tier 1 and 2.00% maximum for Tier 2.

**Employee Contribution and** 

**Matching Account Crediting Rate:** Based on average of 5-year Treasury note rate. An assumption of 3.50% is used to

approximate that crediting rate in this valuation.

Net Investment Return: 7.75%

**Salary Increases:** Inflation: 3.50%; plus additional 0.75% "across the board" salary increases (other

than inflation); plus the following merit and promotional increases:

For members with under 5 years of service:

Service	Percentage Increase	
0	7.00%	
1	6.25%	
2	4.75%	
3	3.50%	
4	2.25%	

For members with 5 or more years of service:

Age	Percentage Increase*
20 – 24	2.25%
25 - 29	2.00%
30 - 34	1.25%
35 - 39	1.00%
40 - 44	0.75%
45 – 49	0.50%
50 - 54	0.40%
55 - 69	0.40%

<sup>\*</sup> At central age in age range shown.



#### **Changes in Actuarial Assumptions (continued):**

#### **Funding Policy:**

The plan sponsor of the City of Los Angeles Employees' Retirement System makes contributions equal to the normal cost adjusted by an amount to amortize any surplus or unfunded actuarial accrued liability. Both the normal cost and the actuarial accrued liability are determined under the Entry Age cost method and are calculated on an individual basis. Entry age is calculated as age on the valuation date minus years of service.

Under the current funding policy, changes in the UAAL due to actuarial gains/losses are amortized over separate 15 year periods. Any changes in the UAAL due to assumption or method changes are amortized over separate 30 year periods. Plan changes, including the 2009 ERIP, are amortized over separate 15 year periods. Future ERIPs will be amortized over 5 years. Any actuarial surplus is amortized over 30 years. All the bases on or before June 30, 2012, except those arising from the 2009 ERIP and the two GASB 25/27 layers, were combined and amortized over 30 years effective June 30, 2012.

In no event will the recommended contribution be less than the minimum Annual Required Contribution (ARC) as determined under GASB Statements 25 and 27.

Age 70; or

Monthly Compensation.

#### **EXHIBIT VII**

Tier 2

(§ 4.1055(a))

Age & Service Requirement

*Amount* (§ 4.1055(a))

#### **Summary of Plan Provisions**

This exhibit summarizes the major provisions of LACERS included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

Plan Year:	July 1 through June 30
Census Date:	June 30
Membership Eligibility:	
Tier 1	All employees who became members of the Retirement System before July 1, 2013, and certain non-Tier 2 employees who became members of the Retirement System on or after July 1, 2013.
Tier 2	All employees who became members of the Retirement System on or after July 1, 2013, except as provided otherwise in Section 4.1002.1 of the LACERS Administrative Code.
Normal Retirement Benefit:	
<u>Tier 1</u>	
Age & Service Requirement	Age 70; or
(§ 4.1005(a))	Age 60 with 10 years of continuous service; or
	Age 55 with at least 30 years of service.
Amount (§ 4.1007(a))	2.16% per year of service credit (not greater than 100%) of the Final Average Monthly Compensation.

Age 65 with 10 years of continuous service.

2.00% per year of service credit (not greater than 75%) of the Final Average



#### **Early Retirement Benefit:**

#### Tier 1

Age & Service Requirement

(§ 4.1005(b))

Amount (§ 4.1007(b))

Age 55 with 10 years of continuous service; or

Any age with 30 years of service.

2.16% per year of service credit (not greater than 100%) of the Final Average Monthly Compensation, reduced for retirement ages below age 60 using the following sample Early Retirement benefit adjustment factors:

Age	<b>Factor</b>
45	0.6250
50	0.7750
55	0.9250
60	1.0000

#### Tier 2

Age & Service Requirement (§ 4.1055(b))

Amount (§ 4.1055(b))

Age 55 with 10 years of continuous service.

Retirement Factor x years of service credit (not greater than 75%) x Final Average Monthly Compensation. Retirement Factors are as follows:

Age	Factor	Age	Factor
55	0.7700%	60	1.2200%
56	0.8400%	61	1.3400%
57	0.9200%	62	1.4800%
58	1.0100%	63	1.6300%
59	1.1100%	64	1.8100%



Service Credit:	
<u>Tiers 1 &amp; 2</u> :	
(§ 4.1001(a) & § 4.1051(a))	The time component of the formula used by LACERS for purposes of calculating benefits.
Final Average Monthly Compensation:	
<u>Tier 1</u>	
(§ 4.1001(b))	Equivalent of monthly average salary of highest continuous 12 months (one year); includes base salary plus regularly assigned bonuses or premium pay.
<u>Tier 2</u>	
(§ 4.1051(b))	Equivalent of monthly average salary of highest continuous 36 months (three years); limited to base salary (excludes bonuses or premium pay).
<b>Cost of Living Benefit:</b>	
<u>Tier 1</u>	
<i>(§ 4.1022)</i>	Based on changes to Los Angeles area Consumer Price Index, to a maximum of 3% per year; excess banked.
<u>Tier 2</u>	
(§ 4.1069)	Based on changes to Los Angeles area Consumer Price Index, to a maximum of 2% per year; member can purchase additional COLA not to exceed 1% per year (paid in full by member)*; excess not banked.
	* It is assumed that such discretionary purchases will only happen at retirement and the cos for such purchases by the member is therefore not included in this valuation.



#### **Death after Retirement:**

<u>Tier 1</u> (§ 4.1010(c))

- (i) 50% of retiree's unmodified allowance continued to an eligible spouse or a domestic partner; or a modified continuance to an eligible spouse or a domestic partner at the time of member's death (or a designated beneficiary selected by member at the time of retirement)\*;
- (ii) \$2,500 lump sum death benefit paid to a designated beneficiary; and
- (iii) Any unused contributions if the member has elected the cash refund annuity option.

<u>Tier 2</u> (§ 4.1060(c))

- (i) If elected at retirement, a modified continuance to an eligible spouse, domestic partner, or designated beneficiary\*;
- (ii) \$2,500 lump sum death benefit paid to a designated beneficiary; and
- (iii) Any unused contributions if the member has elected the cash refund annuity option.
- \* The retiree may elect at the time of retirement to take a reduced allowance in order to provide for a continuance pursuant to the provisions of either Section 4.1015 (Tier 1) or Section 4.1062 (Tier 2).

#### **Death before Retirement:**

<u>Tier 1</u>

(§ 4.1010(a))

Greater of:

#### Option #1:

- (i) Eligibility None.
- (ii) Benefit Refund of employee contributions plus a limited pension benefit equal to 50% of monthly salary paid, according to the following schedule:



#### **Death before Retirement: (continued)**

Tier 1 (continued)

Service Credit	Number of Monthly Payments
1 year	2
2 years	4
3 years	6
4 years	8
5 years	10
6+ years	12

### Option #2:

- (i) Eligibility Duty-related death or after 5 years of service.
- (ii) Benefit Continuance of service or disability benefit payable under 100% joint and survivor option to an eligible spouse or qualified domestic partner.

# <u>Tier 2</u> (§ 4.1060(a))

Greater of:

#### Option #1:

- (i) Eligibility None.
- (ii) Benefit Refund of employee contributions plus a limited pension benefit equal to 50% of monthly salary paid, according to the following schedule:

Service Credit	Number of Monthly Payments
1 year	2
2 years	4
3 years	6
4 years	8
5 years	10
6+ years	12



#### **Death before Retirement: (continued)**

Tier 2 (continued)

#### Option #2:

- (i) Eligibility Eligible for service retirement.
- (ii) Benefit Modified continuance of service retirement benefit under 100% J&S option to eligible spouse or domestic partner.

#### **Member Normal Contributions:**

Tier 1

(§ 4.1003)

Effective July 1, 2011, the member normal contribution rate became 7% for all employees. The 7% member rate shall be paid until June 30, 2026 or until the ERIP Cost Obligation (defined in ERIP Ordinance 180926) is fully paid, whichever comes first\*.

Beginning January 1, 2013, all non-represented members and members in certain bargaining groups are required to pay an additional 4% member contribution rate.

Members with no eligible spouse or domestic partner at retirement can request a refund of the survivor portion of the member contributions (i.e., generally based on a contribution rate of 0.5% of pay).

<u>Tier 2</u> (§ 4.1053)

Actuarially determined rate to fund 75% of normal costs and 50% of UAAL for Tier 2. The initial rate is 10% of pay for the first four years of Tier 2. The rate is then established every three years thereafter, with the first determination to be effective July 1, 2017.

<sup>\*</sup> The member normal contribution rate will drop down to 6% afterwards.

#### **Disability:**

#### Tier 1

Service Requirement (§4.1008(a)) 5 years of continuous service

Amount\*(§4.1008(c)) 1/70 (1.43%) of the Final Average Monthly Compensation per year of service or 1/3

of the Final Average Monthly Compensation, if greater.

#### *Tier 2*

Service Requirement (§4.1058(a)) 10 years of continuous service

Amount\* (§4.1058(c)) 1/90 (1.11%) of the Final Average Monthly Compensation per year of service.

#### **Deferred Withdrawal Retirement Benefit (Vested):**

#### Tier 1

*(§ 4.1006)* 

Age & Service Requirement Age 70 with 5 years of continuous service; or

Age 60 with 5 years of continuous service and at least 10 years elapsed from first date

of membership; or

Age 55 with at least 30 years of service.

Deferred employee who meets part-time eligibility: age 60 with at least 10 years from

the first date of membership.

Amount Normal retirement benefit (or refund of contributions, if greater)



<sup>\*</sup> The benefit calculated using the service retirement formula will be paid if the member is eligible and that benefit is greater than that calculated under the disability retirement formula.

#### Deferred Withdrawal Retirement Benefit (Vested): (continued)

Tier 1 (continued)

Age & Service Requirement Age 55 with 5 years of continuous service and at least 10 years elapsed from first date

of membership; or

Age 55 with 10 years of continuous service.

Deferred employee who meets part-time eligibility: age 55 with at least 10 years from

the first date of membership.

Amount Early retirement benefit (or refund of contributions, if greater)

Tier 2

(§ 4.1056)

Age & Service Requirement Age 70 with 5 years of continuous service; or

Age 55 with 5 years of continuous service and at least 10 years elapsed from first date

of membership; or

Deferred employee who meets part-time eligibility: age 55 with at least 10 years from

the first date of membership; or

Deferred employee who meets part-time eligibility: age 70.

Amount Early or normal retirement benefit (or refund of contributions, if greater)

# Withdrawal of Contributions Benefit (Ordinary Withdrawal):

Refund of employee contributions with interest.

**Changes in Plan Provisions:** None during July 1, 2013 to June 30, 2014.

#### NOTE:

The summary of major Plan provisions is designed to outline principal plan benefits as interpreted for purposes of the actuarial valuation. If the System should find the plan summary not in accordance with the actual provisions, the System should alert the actuary so that both parties can be sure the proper provisions are valued.





# Los Angeles City Employees' Retirement System

Actuarial Valuation and Review of Other Postemployment Benefits (OPEB) as of June 30, 2014 in accordance with GASB Statements No. 43 and No.45

This report has been prepared at the request of the Board of Administration to assist in administering the Fund. This valuation report may not otherwise be copied or reproduced in any form without the consent of the Board of Administration and may only be provided to other parties in its entirety. The measurements shown in this actuarial valuation may not be applicable for other purposes.

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December 3, 2014

Board of Administration Los Angeles City Employees' Retirement System 202 W. 1<sup>st</sup> Street, Suite 500 Los Angeles, CA 90012-4401

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review of Other Postemployment Benefits (OPEB) as of June 30, 2014 under Governmental Accounting Standards Board Statements No. 43 and No. 45. The report summarizes the actuarial data used in the valuation, discloses the Net OPEB Obligation (NOO) as of June 30, 2014, establishes the Annual Required Contribution (ARC) for the Fiscal Year 2015/2016, and analyzes the preceding year's experience. This report was based on the census and unaudited financial data provided by the Retirement System and the terms of the Plan as summarized in Exhbit III. The actuarial calculations were completed under the supervision of Thomas Bergman, ASA, MAAA, Enrolled Actuary and Andy Yeung, ASA, MAAA, FCA, Enrolled Actuary.

This actuarial valuation has been completed in accordance with generally accepted actuarial principles and practices. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. Further, in our opinion, the assumptions used in this valution and described in Exhibit II are reasonably related to the experience of and the expectations for the Plan. The actuarial projections are based on these assumptions and the plan of benefits as summarized in Exhibits II and III.

Sincerely,

Segal Consulting, a Member of the Segal Group, Inc.

Bv:

Paul Angelo, FSA, MAAA, EA, FCA Senior Vice President and Actuary

dy Yeung, ASA, MAAA, EA, FCA

Vice President and Associate Actuary

JRC/hy

# **SECTION 1**

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#### **PURPOSE**

This report presents the results of our actuarial valuation of the City of Los Angeles Employees' Retirement System OPEB plan as of June 30, 2014. The results are in accordance with the Governmental Accounting Standards, which prescribe an accrual methodology for accumulating the value of other postemployment benefits (OPEB) over participants' active working lifetimes.

#### HIGHLIGHTS OF THE VALUATION

- > The recommended contribution has increased from \$103.6 million (5.61% of payroll) to \$106.6 million (5.62% of payroll), assuming contributions are made by the City on July 15. A reconciliation of the change in the recommended contribution rate is provided in Section 3, Exhibit H. Rates are shown separately for Tiers 1 and 2 in Chart 4 of Section 2
- ➤ The results of this valuation reflect changes in the actuarial assumptions as recommended by Segal Consulting and adopted by the Board on October 28, 2014. These changes were documented in our 2014 Triennial Actuarial Experience Study report dated October 8, 2014 and are also outlined in Section 4, Exhibit II of this report.
- > Based on action taken by the Board on September 9, 2014, the amortization period for assumption and method changes was reduced from 30 years to 20 years. The costs associated with the changes in actuarial assumptions adopted from the 2014 Experience Study have been amortized over the new 20-year period in this valuation report.

- The ratio of the actuarial value of assets to actuarial accrued liabilities increased from 71.91% to 72.90%. On a market value of assets basis, the funded ratio increased from 71.42% to 78.54%. The unfunded actuarial accrued liability increased from \$677.8 million to \$721.6 million. A complete reconciliation of the System's unfunded actuarial accrued liability is provided in Section 2, Chart 2.
- > On October 25, 2011, the Board elected to phase in the impact of new actuarial assumptions (adopted as a result of the June 30, 2011 Triennial Experience Study) on the City's retirement and health plan contributions over a five-year period, beginning with the 2012-2013 Fiscal Year. The recommended (i.e., pre-phase-in) contribution rates for Fiscal Year 2015-2016 (the fourth year of the phase-in) are contained in this report. In a separate letter, we provide the "phased-in" contribution rates for Fiscal Year 2015-2016.

On October 14, 2014, as part of the Board's deliberations on the actuarial assumptions for use in this valuation, the Board also discussed the possibility of phasing in the cost impact of the new actuarial assumptions adopted from the recent June 30, 2014 Triennial Experience Study on the City's retirement and health plan contributions over three alternative phase-in periods. In another separate letter, we provide the incremental phase-in contribution rates for Fiscal Year 2015-2016 resulting from the 2014 Experience Study.



- Based on additional action taken by the Board on September 9, 2014, the total amount of unrecognized investment losses as of June 30, 2013 (i.e., -\$81,571,421) has been recognized in six level amounts, with five years of recognition remaining after the June 30, 2014 valuation.
- As indicated in Section 3, Exhibit G, the total unrecognized investment gain as of June 30, 2014 is \$1,000,268,600 for the assets for Retirement, Health, Family Death, and Larger Annuity Benefits. This investment gain will be recognized in the determination of the actuarial value of assets for funding purposes in the next several years. This implies that earning the assumed rate of investment return of 7.50% per year (net of expenses) on a market value basis will result in net investment gains on the actuarial value of assets after June 30, 2014. Item 9 in Exhibit G shows how, under the asset smoothing method, the \$1.0 billion in unrecognized gains will be recognized in the next six years.

The deferred gains of \$1.0 billion represent 7.2% of the market value of assets as of June 30, 2014. Unless offset by future investment losses or other unfavorable experience, the recognition of the \$1.0 billion market gains is expected to have an impact on the System's future funded percentage and contribution rate requirements. This potential impact may be illustrated as follows:

> If the retiree health plan component of the deferred gains were recognized immediately in the actuarial value of assets, the funded percentage would increase from 72.90% to 78.54%.

- > If the retiree health plan component of the deferred gains were recognized immediately in the valuation value of assets, the aggregate employer rate (payable on July 15) would decrease from 5.62% to about 4.96% of payroll.
- > The actuarial valuation report as of June 30, 2014 is based on financial information as of that date. Changes in the value of assets subsequent to that date are not reflected. Declines in asset values will increase the actuarial cost of the Plan, while increases will decrease the actuarial cost of the Plan.
- ➤ As in prior years, the employer contribution rates (before adjustments for the five-year phase in of the impact of new actuarial assumptions adopted for the June 30, 2011 valuation) provided in this report have been developed assuming they will be paid by the City on any of the following dates:
  - (1) The beginning of the fiscal year, or
  - (2) On July 15, 2015, or
  - (3) Throughout the year (i.e., the City will pay contributions at the end of every pay period).
- ➤ Even though the City will be paying UAAL contributions based on the Tier 2 payroll, the contributions should be maintained on a bookkeeping basis as contributions made to the Tier 1 plan. We believe this treatment is reasonable even though some of those contributions may be allocated to pay off 50% of the UAAL that the City is required to pay to Tier 2. However, we are not recommending that allocation at this time. Segal Consulting would need to work with LACERS to determine the procedure required to



## SECTION 1: Valuation Summary for Los Angeles City Employees' Retirement System Measurement Under GASB 43 and 45 as of June 30, 2014

ensure that none of those contributions would inadvertently affect the calculation that we would perform in the June 30, 2016 valuation when the Tier 2 members are required, for the first time, to pay the remaining 50% of the UAAL starting on July 1, 2017.



SECTION 1: Valuation Summary for Los Angeles City Employees' Retirement System Measurement Under GASB 43 and 45 as of June 30, 2014

#### SUMMARY OF VALUATION RESULTS

The key valuation results for the current and prior years are shown.

	June 30, 2014	June 30, 2013
Actuarial Accrued Liability (AAL)	\$2,662,853,153	\$2,412,483,968
Actuarial Value of Assets	1,941,224,810	1,734,733,258
Unfunded Actuarial Accrued Liability	721,628,343	677,750,710
Funded Ratio on Actuarial Value Basis	72.90%	71.91%
Market Value of Assets	2,091,334,640	\$1,722,945,241
Funded Ratio on Market Value Basis	78.54%	71.42%
Annual Required Contribution (ARC) <sup>(1), (2)</sup>		
Normal cost (beginning of year)	\$65,077,122	\$64,319,088
Amortization of the unfunded actuarial accrued liability	41,245,521	38,944,535
Total Annual Required Contribution (beginning of year)	\$106,322,643	\$103,263,623
Total Annual Required Contribution (July 15)	\$106,643,515	103,585,288
Total Annual Required Contribution (end of each pay period)	\$110,237,663	107,190,426
Projected total payroll <sup>(3)</sup>	\$1,898,064,175	\$1,846,970,474
ARC as a percentage of pay (there is a 12-month delay until the rate is effective) <sup>(4)</sup>		
Beginning of year	5.60%	5.59%
July 15	5.62%	5.61%
End of each pay period	5.81%	5.80%
Total Participants	43,229	43,544
Annual OPEB Cost (AOC) for Coming Year		
Annual Required Contributions (July 15)	\$103,585,288	\$101,000,249
Interest on Net OPEB Obligations	0	0
ARC Adjustments	0	0
Total Annual OPEB Cost	\$103,585,288	\$101,000,249
AOC as a percent of pay	5.61%	5.55%

<sup>(1)</sup> Both the June 30, 2014 and June 30, 2013 contribution rates are <u>before</u> adjustments to phase-in over five years the City contribution rate impact due to the actuarial assumptions adopted as recommended in the June 30, 2011 triennial experience study.

<sup>(4)</sup> A breakdown of the ARC by tier is provided in Chart 4.



June 30, 2014 contribution rates are <u>before</u> any adjustments that may be considered by the Board to phase in the City contribution rate impact of new actuarial assumptions adopted as recommended in the June 30, 2014 Triennial Experience Study.

<sup>(3)</sup> Reflects amount calculated in the pension valuation.

December 3, 2014

#### ACTUARIAL CERTIFICATION

This is to certify that Segal Consulting (Segal) has conducted an actuarial valuation of certain benefit obligations of Los Angeles City Employees' Retirement System's other postemployment benefit programs as of June 30, 2014, in accordance with generally accepted actuarial principles and practices. Actuarial valuations are performed annually for this other postemployment benefit program with the last valuation completed as of June 30, 2013. The actuarial calculations presented in this report have been made on a basis consistent with our understanding of Governmental Accounting Standard Board (GASB) Statements No. 43 and No. 45 for the determination of the liability for postemployment benefits other than pensions.

The actuarial valuation is based on the plan of benefits verified by LACERS and on participant, premium, claims and financial data provided by LACERS. Segal did not audit LACERS' financial statements, but conducted an examination of all participant data for reasonableness, and concluded that it was reasonable and consistent with the prior year's data.

One of the general goals of an actuarial valuation is to establish contributions that fully fund the Retirement System's liabilities, and that, as a percentage of payroll, remain as level as possible for each generation of active members. Both the Normal Cost and the Actuarial Accrued Liability are determined under the Entry Age cost method. In no event will the recommended contribution be less than the minimum Annual Required Contribution (ARC) as determined under GASB Statements 43 and 45.

The actuarial computations made are for purposes of fulfilling plan accounting and funding requirements. Determinations for purposes other than meeting financial accounting and funding requirements may be significantly different from the results reported here. Accordingly, additional determinations may be needed for other purposes, such as judging benefit security at termination of the plan, or determining short-term cash flow requirements.

Segal prepared all supporting schedules in the actuarial section and the supporting schedules in the financial section of the System's CAFR. A listing of supporting schedules Segal prepared for inclusion in the financial section as Supplementary Information required by GASB Statements 43 and 45 is provided below:

- 1) Schedule of Funding Progress
- 2) Schedule of Employer Contributions

LACERS' staff prepared other trend data schedules in the statistical section based on information supplied in this valuation report.

To the best of our knowledge, this report is complete and accurate and in our opinion presents the information necessary to comply with GASB Statements 43 and 45 with respect to the benefit obligations addressed. The signing actuaries are Members of the Society of Actuaries, and/or the American Academy of Actuaries, as well as other professional actuarial organizations and collectively meet their "General Qualification Standards for Statements of Actuarial Opinions" to render the actuarial opinion contained herein.

Thomas Bergman, ASA, MAAA, EA

**Assistant Actuary** 

Andy Yeung, ASA, MAAA, EA, FCA Vice President and Associate Actuary



## SECTION 2: Valuation Results for the Los Angeles City Employees' Retirement System Measurement Under GASB 43 and 45 as of June 30, 2014

The actuarial present value of total projected benefits uses the actuarial assumptions disclosed in Section 4 to calculate the value today of all benefits expected to be paid to current actives and retired plan members. The actuarial balance sheet shows the expected breakdown of how these benefits will be financed.

CHART 1

Actuarial Present Value of Total Projected Benefits (APB) and Actuarial Balance Sheet

	Actuarial Present Value of Total Projected Benefits (APB)		
	June 30, 2014	June 30, 2013	
Participant Category			
Current retirees, beneficiaries, and dependents	\$1,196,769,321	\$1,104,832,577	
Current active members	1,993,755,009	1,854,072,110	
Terminated members entitled but not yet eligible	<u>41,188,181</u>	<u>26,868,636</u>	
Total	\$3,231,712,511	\$2,985,773,323	
	June 30, 2014	June 30, 2013	
Actuarial Balance Sheet			
The actuarial balance sheet as of the valuation date is as follows:			
Assets			
1. Actuarial value of assets	\$1,941,224,810	\$1,734,733,258	
2. Present value of future normal costs	568,859,358	573,289,355	
3. Unfunded actuarial accrued liability	<u>721,628,343</u>	677,750,710	
4. Present value of current and future assets	\$3,231,712,511	\$2,985,773,323	
Liabilities			
5. Actuarial Present Value of total Projected Benefits	\$3,231,712,511	\$2,985,773,323	



## SECTION 2: Valuation Results for the Los Angeles City Employees' Retirement System Measurement Under GASB 43 and 45 as of June 30, 2014

The actuarial accrued liability shows that portion of the APB (Chart 1) allocated to periods prior to the valuation date by the actuarial cost method. The chart below shows the portion of the liability for active and inactive members,

and reconciles the unfunded actuarial accrued liability from last year to this year.

CHART 2
Actuarial Accrued Liability (AAL) and Unfunded AAL (UAAL)

	June 30, 2014	June 30, 2013
Participant Category		
Current retirees, beneficiaries, and dependents	\$1,196,769,321	\$1,104,832,577
Current active members	1,424,895,651	1,280,782,755
Terminated members entitled but not yet eligible*	41,188,181	<u>26,868,636</u>
Total actuarial accrued liability	\$2,662,853,153	\$2,412,483,968
Unfunded Actuarial Accrued Liability		
Total actuarial accrued liability	\$2,662,853,153	\$2,412,483,968
Actuarial value of assets	<u>\$1,941,224,810</u>	\$1,734,733,258
Unfunded actuarial accrued liability	\$677,750,710	
Development of Unfunded Actuarial Accrued Liability for the Year Ende	d June 30, 2014	
1. Unfunded actuarial accrued liability as of June 30, 2013		\$677,750,710
2. Employer normal cost as of June 30, 2013		64,319,088
3. Total employer contributions during 2013/2014 fiscal year		97,840,554
4. Interest		50,255,138
5. Expected unfunded actuarial accrued liability as of June 30, 2014 (1 + 2	(2-3+4)	694,484,382
6. Effect of investment gain		-72,508,896
7. Effect of demographic changes and technical amendment*		17,059,031
8. Effect of change in medical trend assumption		37,155,734
9. Effect of premiums lower than expected		-89,849,457
10. Effect of new actuarial assumptions from triennial experience study		135,287,549
11. Unfunded actuarial accrued liability as of June 30, 2014 $(5+6+7+8)$	+9+10)	\$721,628,343

<sup>\*</sup> As previously directed by LACERS, deferred vested members who separated from employment prior to having a chance to make the additional 4% contribution were valued assuming a frozen subsidy in the June 30, 2013 valuation. A technical amendment effective July 25, 2013 unfroze the subsidy for this group, and the June 30, 2014 valuation reflects this change. Excludes a \$6,170,728 loss from contributions less than anticipated due to the one-year delay in implementing the higher contribution rate calculated in the June 30, 2013 valuation.



The unfunded actuarial accrued liability may be amortized over periods of up to 30 years. Amortization payments may be calculated as level dollar amounts or as amounts designed to remain level as a percent of a growing payroll base. Los Angeles City Employees' Retirement System has elected to amortize the unfunded actuarial accrued liability using the following rules: The costs associated with the 2009 ERIP have been amortized over 15 years beginning with the June 30, 2009 valuation date. The unfunded actuarial accrued liability as of June 30, 2012 is amortized over a fixed period of 30 years beginning July 1, 2012.

Assumption changes resulting from the triennial experience study will be amortized over 20 years. Health trend and premium assumption changes, plan changes, and gains and losses will be amortized over 15 years.

CHART 3

Table of Amortization Bases

Туре	Date Established	Initial Year	Initial Amount	Outstanding Balance	Annual Payment*	Years Remaining
Plan amendment (2009 ERIP)	06/30/2009	15	\$54,735,645	\$48,618,351	\$5,617,297	10
Combined base**	06/30/2012	30	597,984,614	623,685,240	33,609,178	28
Experience loss	06/30/2013	15	16,206,142	16,010,063	1,405,543	14
Change in Assumptions	06/30/2014	20	135,287,549	135,287,549	9,097,244	20
Experience Gain	06/30/2014	15	-101,972,860	-101,972,860	<u>-8,483,741</u>	15
Total				\$721,628,343	\$41,245,521	

<sup>\*</sup> Level percentage of pay.

Note: The equivalent single amortization period is about 25 years.



<sup>\*\*</sup> On October 23, 2012, the Board elected to combine all amortization bases as of June 30, 2012, except for the base associated with the 2009 ERIP, which remains on its original schedule. In addition, the Board adopted an initial amortization period of 30 years for the combined bases as of June 30, 2012.

The Annual Required Contribution (ARC) is the amount calculated to determine the annual cost of the OPEB plan for accounting purposes on an accrual basis. The calculation consists of adding the Normal Cost of the plan to an amortization payment. Both are determined as of the start of the accounting period and adjusted as if the annual cost were to be contributed throughout the fiscal year or on July 15<sup>th</sup>.

CHART 4

Determination of Annual Required Contribution (ARC)

Tion 4 Coot Flowant			Determined as of June 30					
Her	1 - Cost Element	201	<b>4</b> <sup>(1), (2)</sup>	20	13 <sup>(1)</sup>			
		Amount	Percentage of Compensation	Amount	Percentage of Compensation			
1.	Normal cost	\$63,891,750	3.45%	\$64,319,088	3.48%			
2.	Amortization of the unfunded actuarial accrued liability	40,251,443	2.17% (3), (5)	38,944,535	<u>2.11%</u> <sup>(3)</sup>			
3.	Total Annual Required Contribution (beginning of year)	\$104,143,193	5.62%	\$103,263,623	5.59%			
4.	Projected Payroll <sup>(4)</sup>	\$1,852,318,041		\$1,846,970,474				
5.	Adjustment for timing (July 15)	\$314,295	0.02%	321,665	0.02%			
6.	Total Annual Required Contribution (July 15)	\$104,457,488	5.64%	\$103,585,288	5.61%			
7.	Adjustment for timing (end of pay period)	\$3,834,768	0.21%	3,926,803	0.21%			
8.	Total Annual Required Contribution (end of pay period)	\$107,977,961	5.83%	\$107,190,426	5.80%			

Both the June 30, 2013 and 2014 contribution rates are <u>before</u> adjustment to phase in over five years the City Contribution rate impact of the actuarial assumptions adopted as recommended in the June 30, 2011 triennial experience study.

<sup>(5)</sup> In developing the UAAL contribution rate, we have combined the UAAL for Tier 1 and Tier 2 and amortized that total UAAL over the total payroll for Tier 1 and Tier 2.



June 30, 2014 contribution rates are <u>before</u> any adjustments that may be considered by the Board to phase in the City contribution rate impact of new actuarial assumptions adopted as recommended in the June 30, 2014 Triennial Experience Study.

<sup>(3)</sup> Even through the City will be paying a UAAL contribution based on the Tier 2 payroll, the contributions should be maintained on a book keeping basis as contributions made to the Tier 1 plan.

<sup>(4)</sup> Reflects amount calculated in the pension valuation.

#### **CHART 4 (continued)**

#### **Determination of Annual Required Contribution (ARC)**

nt	201	<b>1</b> (1), (2)	00	(1)
	Element 2014 <sup>(1), (2)</sup>			13 <sup>(1)</sup>
	Amount	Percentage of Compensation	Amount	Percentage of Compensation
	\$1,185,372	2.59%	\$0	2.29%
ne unfunded actuarial accrued liability	994,078	2.17% <sup>(3), (5)</sup>	<u>0</u>	<u>2.11%</u> <sup>(3)</sup>
uired Contribution (beginning of year)	\$2,179,450	4.76%	\$0	4.40%
4)	\$45,746,134		\$0	
ning (July 15)	\$6,577	0.02%	\$0	0.01%
uired Contribution (July 15)	\$2,186,027	4.78%	\$0	4.41%
ning (end of pay period)	\$80,252	0.18%	\$0	0.16%
uired Contribution (end of pay period)	\$2,259,702	4.94%	\$0	4.56%
	uired Contribution (beginning of year)  4)  ming (July 15)  uired Contribution (July 15)  ming (end of pay period)	ne unfunded actuarial accrued liability uired Contribution (beginning of year)  4)  Superscript State	\$1,185,372 2.59%  ne unfunded actuarial accrued liability 994,078 2.17% <sup>(3), (5)</sup> uired Contribution (beginning of year) \$2,179,450 4.76%  4) \$45,746,134  ming (July 15) \$6,577 0.02%  uired Contribution (July 15) \$2,186,027 4.78%  ming (end of pay period) \$80,252 0.18%	\$1,185,372 2.59% \$0  ne unfunded actuarial accrued liability 994,078 2.17%(3),(5) 0  uired Contribution (beginning of year) \$2,179,450 4.76% \$0  4) \$45,746,134 \$0  ming (July 15) \$6,577 0.02% \$0  uired Contribution (July 15) \$2,186,027 4.78% \$0  ming (end of pay period) \$80,252 0.18% \$0

Determined as of June 30



<sup>(1)</sup> Both the June 30, 2013 and 2014 contribution rates are <u>before</u> adjustment to phase in over five years the City Contribution rate impact of the actuarial assumptions adopted as recommended in the June 30, 2011 triennial experience study.

<sup>&</sup>lt;sup>(2)</sup> June 30, 2014 contribution rates are <u>before</u> any adjustments that may be considered by the Board to phase in the City contribution rate impact of new actuarial assumptions adopted as recommended in the June 30, 2014 Triennial Experience Study.

<sup>(3)</sup> Even through the City will be paying a UAAL contribution based on the Tier 2 payroll, the contributions should be maintained on a book keeping basis as contributions made to the Tier 1 plan.

 $<sup>^{(4)}</sup>$  Reflects amount calculated in the pension valuation.

<sup>(5)</sup> In developing the UAAL contribution rate, we have combined the UAAL for Tier 1 and Tier 2 and amortized that total UAAL over the total payroll for Tier 1 and Tier 2.

#### **CHART 4 (continued)**

#### **Determination of Annual Required Contribution (ARC)**

Total Annual Required Contribution (end of pay period)

#### Determined as of June 30 **Combined - Cost Element** 2014(1), (2) 2013<sup>(1)</sup> Percentage of Percentage of Compensation Compensation **Amount** Amount \$65,077,122 3.43% 3.48% 1. Normal cost \$64,319,088 $2.17\%^{(3),(5)}$ 2. Amortization of the unfunded actuarial accrued liability 41,245,521 38,944,535 $2.11\%^{(3)}$ 3. Total Annual Required Contribution (beginning of year) \$106,322,643 5.60% \$103,263,623 5.59% Projected Payroll<sup>(4)</sup> \$1,898,064,175 \$1,846,970,474 0.02% 5. Adjustment for timing (July 15) \$320,872 0.02% 321,665 6. Total Annual Required Contribution (July 15) \$106,643,515 5.62% \$103,585,288 5.61% Adjustment for timing (end of pay period) 0.21% \$3,915,020 0.21% 3.926,803

5.81%

\$107,190,426

5.80%

\$110,237,663



<sup>(1)</sup> Both the June 30, 2013 and 2014 contribution rates are <u>before</u> adjustment to phase in over five years the City Contribution rate impact of the actuarial assumptions adopted as recommended in the June 30, 2011 triennial experience study.

<sup>&</sup>lt;sup>(2)</sup> June 30, 2014 contribution rates are <u>before</u> any adjustments that may be considered by the Board to phase in the City contribution rate impact of new actuarial assumptions adopted as recommended in the June 30, 2014 Triennial Experience Study.

<sup>(3)</sup> Even through the City will be paying a UAAL contribution based on the Tier 2 payroll, the contributions should be maintained on a book keeping basis as contributions made to the Tier 1 plan.

<sup>(4)</sup> Reflects amount calculated in the pension valuation.

<sup>(5)</sup> In developing the UAAL contribution rate, we have combined the UAAL for Tier 1 and Tier 2 and amortized that total UAAL over the total payroll for Tier 1 and Tier 2.

### SECTION 2: Valuation Results for the Los Angeles City Employees' Retirement System Measurement Under GASB 43 and 45 as of June 30, 2014

The OPEB Cost (AOC) adjusts the ARC for any past differences between the ARC and contributions in relation to the ARC as tracked in the Net OPEB Obligation (NOO). The AOC is the cost of OPEB actually recognized as an expense for the Fiscal Year under GASB 45.

#### **CHART 4 (continued)**

**Determination of Annual OPEB Cost (AOC)** 

	Cost Element	Determined as of June 30				
		20	14*	20	13*	
		Amount	Percentage of Compensation	Amount	Percentage of Compensation	
1.	Annual Required Contribution (July 15)	\$106,643,515	5.62%	\$103,585,288	5.61%	
2.	Interest on Beginning of Year Net OPEB Obligation (NOO)	0	0.00%	0	0.00%	
3.	ARC adjustment	0	0.00%	0	0.00%	
4.	Annual OPEB Cost (July 15)	<u>\$106,643,515</u>	<u>5.62%</u>	<u>\$103,585,288</u>	<u>5.61%</u>	

<sup>\*</sup> June 30, 2013 and 2014 contribution rates are <u>before</u> adjustment to phase in over five years the City Contribution rate impact of the actuarial assumptions used in the June 30, 2011 valuation.



For GASB 43 (plan reporting) purposes, the schedule of employer contributions compares actual contributions to the ARC. For GASB 45 (employer reporting) purposes, the schedule of employer contributions compares actual

contributions to the AOC. The dollar amounts shown below reflect the contribution rates applied to actual payrolls.

CHART 5
Required Supplementary Information – Schedule of Employer Contributions
GASB 43

Fiscal Year Ended June 30	Annual Required Contributions	Actual Contributions	Percentage Contributed
2009	\$95,122,090	\$95,122,090	100.00%
2010	96,511,234	96,511,234	100.00%
2011	107,395,804	107,395,804	100.00%
2012	115,208,835	115,208,835	100.00%
2013	72,916,729	72,916,729	100.00%
2014	97,840,554	97,840,554	100.00%

## Required Supplementary Information – Schedule of Employer Contributions GASB 45

Fiscal Year Ended June 30	Annual OPEB Cost	Actual Contributions	Percentage Contributed
2009	\$95,122,090	\$95,122,090	100.00%
2010	96,511,234	96,511,234	100.00%
2011	107,395,804	107,395,804	100.00%
2012	115,208,835	115,208,835	100.00%
2013	72,916,729	72,916,729	100.00%
2014	97,840,554	97,840,554	100.00%



This schedule of funding progress presents multi-year trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liability for benefits.

CHART 6

Required Supplementary Information – Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b) - (a)	Funded Ratio (a) / (b)	Covered Payroll* (c)	UAAL as a Percentage of Covered Payroll [(b) - (a) / (c)]
06/30/2009	\$1,342,496,524	\$2,058,176,825	\$715,680,301	65.23%	\$1,816,171,212	39.41%
06/30/2010	1,425,726,017	2,233,874,432	808,148,415	63.82%	1,817,662,284	44.46%
06/30/2011	1,546,883,749	1,968,707,666	421,823,917	78.57%	1,833,392,381	23.01%
06/30/2012	1,642,373,560	2,292,400,227	650,026,667	71.64%	1,819,269,630	35.73%
06/30/2013	1,734,733,258	2,412,483,968	677,750,710	71.91%	1,846,970,474	36.70%
06/30/2014	1,941,224,810	2,662,853,153	721,628,343	72.90%	1,898,064,175	38.02%

<sup>\*</sup> Reflects amount calculated in the pension valuation.



## SECTION 2: Valuation Results for the Los Angeles City Employees' Retirement System Measurement Under GASB 43 and 45 as of June 30, 2014

The Net OPEB obligation measures the accumulated differences between the annual OPEB cost and the actual contributions in relation to the ARC.

The dollar amounts shown below reflect the contribution rates applied to actual payrolls.

CHART 7

Required Supplementary Information – Net OPEB Obligation (NOO)

Fiscal Year End	Annual Required Contribution (a)	Interest on Existing NOO (b)	ARC Adjustment (c)	Annual OPEB Cost (a) + (b) + (c) (d)	Actual Contribution Amount (e)	Net Increase in NOO (d) - (e) (f)	NOO as of Fiscal Year (g)
06/30/2009	\$95,122,090	\$0	\$0	\$95,122,090	\$95,122,090	\$0	\$0
06/30/2010	96,511,234	0	0	96,511,234	96,511,234	0	0
06/30/2011	107,395,804	0	0	107,395,804	107,395,804	0	0
06/30/2012	115,208,835	0	0	115,208,835	115,208,835	0	0
06/30/2013	72,916,729	0	0	72,916,729	72,916,729	0	0
06/30/2014	97,840,554	0	0	97,840,554	97,840,554	0	0



#### **VOLATILITY RATIOS**

Retirement plans are subject to volatility in the level of required contributions. This volatility tends to increase as retirement plans become more mature.

The Asset Volatility Ratio (AVR), which is equal to the market value of assets divided by total payroll, provides an indication of the potential contribution volatility for any given level of investment volatility. A higher AVR indicates that the plan is subject to a greater level of contribution volatility. This is a current measure since it is based on the current level of assets.

For LACERS, the current AVR is about 1.10. This means that a 1% asset gain/(loss) (relative to the assumed investment return) translates to about 1.10% of one-year's payroll. Since LACERS amortizes actuarial gains and losses over a period of 15 years, there would be a 0.09% of payroll decrease/(increase) in the required contribution for each 1% asset gain/(loss).

The Liability Volatility Ratio (LVR), which is equal to the Actuarial Accrued Liability divided by payroll, provides an indication of the longer-term potential for contribution volatility for any given level of investment volatility. This is because, over an extended period of time, the plan's assets should track the plan's liabilities. For example, if a plan is 50% funded on a market value basis, the liability volatility ratio would be double the asset volatility ratio and the plan sponsor should expect contribution volatility to increase over time as the plan becomes better funded.

The LVR also indicates how volatile contributions will be in response to changes in the Actuarial Accrued Liability due to actual experience or to changes in actuarial assumptions.

For LACERS, the current LVR is about 1.40. This is about 27% higher than the AVR. Therefore, we would expect that contribution volatility will increase over the long-term.

This chart shows how the asset and liability volatility ratios have varied over time.

CHART 8

Volatility Ratios for Years Ended June 30, 2009 – 2014

Asset Volatility Ratio	<b>Liability Volatility Ratio</b>
0.55	1.13
0.64	1.23
0.80	1.07
0.82	1.26
0.93	1.31
1.10	1.40
	0.55 0.64 0.80 0.82 0.93



### SECTION 2: Valuation Results for the Los Angeles City Employees' Retirement System Measurement Under GASB 43 and 45 as of June 30, 2014

The Actuarial Valuation and Review considers the number and demographic characteristics of covered members, including active members, inactive non-vested members (entitled to a refund of member contributions), inactive vested members, retired members and beneficiaries. This section presents a summary of significant statistical data on these member groups.

More detailed information for this valuation year and the preceding valuation can be found in Section 3, Exhibit A.

A historical perspective of how the member population has changed over the past eight valuations can be seen in this chart.

# CHART 9 Member Population: 2007 – 2014

Year Ended June 30	Active Participants	Inactive Members	Retired Members and Beneficiaries**	Ratio of Non-Actives to Actives
2007	30,175	607	11,336	0.40
2008	30,236	703	12,004	0.42
2009	30,065	674	11,893	0.42
2010	26,245	806	13,442	0.54*
2011	25,449	813	13,436	0.56
2012	24,917	858	13,431	0.57
2013	24,441	861	13,592	0.59
2014	24,009	955	13,686	0.61

<sup>\*</sup> Reflects 2009 Early Retirement Incentive Program.



<sup>\*\*</sup> Excludes retirees and surviving spouses not yet eligible for retiree health benefits.

This exhibit summarizes the participant data used for the current and prior valuations.

## **EXHIBIT A**Summary of Participant Data

	June 30, 2014	June 30, 2013
Retirees*		
Number of non-disabled	11,612	11,552
Number of disabled	<u>316</u>	<u>320</u>
Total number of retirees	11,928	11,872
Average age of retirees	71.7	71.4
Number of spouses	4,579	4,650
Average age of spouses	68.4	68.1
Surviving Spouses*		
Number	1,758	1,720
Average age	79.1	78.8
Active Participants		
Number	24,009	24,441
Average age	48.8	48.3
Average years of service	15.0	14.5
Inactive Vested Participants (excluding those with less than 10 years of service)		
Number	955	861
Average age	51.3	51.3

<sup>\*</sup> Excludes retirees and surviving spouses not receiving retiree health benefits.



**EXHIBIT B**Reconciliation of Participant Data with Pension Valuation

	June 30, 2014	June 30, 2013
Retirees		
Pension valuation	12,880	12,771
Retirees with no subsidy due to service or decision not to enroll	-1,236	-1,186
Deferred retirees eligible for future health benefits	<u>-32</u>	<u>-33</u>
Health valuation	11,612	11,552
Disableds		
Pension valuation	900	898
Disableds with no subsidy due to service or decision not to enroll	-500	-485
Deferred disableds eligible for future health benefits	<u>-84</u>	<u>-93</u>
Health valuation	316	320
Surviving Spouses		
Pension valuation	3,752	3,693
Surviving spouses with no subsidy due to service or decision not to enroll	-1,918	-1,895
Deferred surviving spouses eligible for future health benefits	<u>-76</u>	<u>-78</u>
Health valuation	1,758	1,720
Actives		
Pension valuation	24,009	24,441
Health valuation	24,009	24,441
Inactive Vested		
Pension valuation	6,031	5,799
Inactive vesteds with less than 10 years of service	<u>-5,076</u>	<u>-4,938</u>
Health valuation	955	861



EXHIBIT C
Retirees and Beneficiaries Added to and Removed from the Rolls

Year <u>Ended 6/30</u>	No. of New Retirees/ Beneficiaries	Annual Allowances <u>Added*</u>	No. of Retirees/ Beneficiaries <u>Removed</u>	Annual Allowances <u>Removed</u>	No. of Retirees/ Beneficiaries at 6/30	Annual Allowances at 6/30	Percent Increase in Annual Allowances	Average Annual <u>Allowance</u>
2009	376	\$5,542,283	487	\$2,697,150	11,893	\$73,868,501	4.0	\$6,211
2010	2,104	23,010,841	555	2,670,987	13,442	94,208,355	27.5	7,009
2011	431	5,670,390	437	2,774,684	13,436	97,104,061	3.1	7,227
2012	433	-540,583	438	2,516,835	13,431	94,046,643	-3.1	7,002
2013	635	9,263,844	474	2,463,967	13,592	100,846,520	7.2	7,420
2014	616	7,160,148	522	3,047,436	13,686	104,959,232	4.1	7,669

<sup>\*</sup> Also reflects changes in subsidies for continuing retirees and beneficiaries.



## **EXHIBIT D**Cash Flow Projections

The ARC generally exceeds the current pay-as-you-go ("paygo") cost of an OPEB plan. Over time the paygo cost will tend to grow and may even eventually exceed the ARC in a well-funded plan. The following table projects the paygo cost as the projected net fund payment over the next ten years.

Year Ending	Projected	Number of	Retirees*	Project	ed Benefit Pa	yments
June 30	Current	Future	Total	Current	Future	Total
2015	18,265	1,075	19,340	\$102,146,139	\$7,529,172	\$109,675,311
2016	17,768	1,896	19,664	101,890,839	14,777,351	116,668,190
2017	17,263	2,818	20,081	102,256,932	23,728,912	125,985,844
2018	16,726	3,786	20,512	102,152,824	34,008,700	136,161,524
2019	16,173	4,803	20,976	102,248,607	45,629,694	147,878,301
2020	15,610	5,863	21,473	101,538,061	58,796,481	160,334,542
2021	15,041	6,945	21,986	100,889,717	73,200,319	174,090,036
2022	14,465	7,981	22,446	100,442,631	87,861,430	188,304,061
2023	13,886	8,975	22,861	99,591,486	102,264,508	201,855,994
2024	13,302	9,938	23,240	98,823,676	116,770,398	215,594,074

<sup>\*</sup> Includes spouses of retirees, but excludes those not receiving a subsidy from LACERS.



EXHIBIT E
Summary Statement of Income and Expenses on an Actuarial Value Basis for Retirement, Health, Family Death and Larger Annuity Benefits

	June 3	0, 2014	June 30, 2013	
Contribution income:				
Employer contributions	\$455,658,786		\$419,266,581	
Employee contributions	204,135,914		197,880,631	
Net contribution income		\$659,794,700		\$617,147,212
Investment income:				
Interest, dividends and other income	\$297,102,305		\$291,462,597	
Recognition of capital appreciation	842,880,565		315,633,473	
Less investment and administrative fees	<u>-41,817,589</u>		<u>-37,585,419</u>	
Net investment income		\$1,098,165,281		\$569,510,651
Total income available for benefits		\$1,757,959,981		\$1,186,657,863
Less benefit payments:				
Payment of benefits	-\$810,584,271		-\$785,308,070	
Refunds of contributions	<u>-15,982,650</u>		<u>-17,697,282</u>	
Net benefit payments		-\$826,566,921		-\$803,005,352
Change in reserve for future benefits		\$931,393,060		\$383,652,511

Note: Results may be slightly off due to rounding.



EXHIBIT F
Summary Statement of Assets for Retirement, Health, Family Death, and Larger Annuity Benefits

	June 3	80, 2014	June 30, 2013	
Cash equivalents		\$681,628,644		\$606,604,488
Accounts receivable:				
Investment income	\$41,214,524		\$38,025,127	
Proceeds from sales	166,513,233		1,688,400,219	
Other	14,362,275		<u>8,321,633</u>	
Total accounts receivable		\$222,090,032		\$1,734,746,979
Investments:				
Fixed Income	\$2,860,598,505		\$2,655,956,957	
Equities	8,617,236,944		7,078,720,385	
Real Estate and Alternative Investment	1,967,891,805		1,889,238,399	
Other	1,037,019,541		1,157,199,068	
Total investments at market value		\$14,482,746,795		\$12,781,114,809
Capital assets		<u>\$2,667,881</u>		\$1,318,307
Total assets		\$15,389,133,352		\$15,123,784,583
Less accounts payable:				
Accounts payable and accrued expenses	-\$17,879,799		-\$56,204,879	
Accrued investment expense	-11,993,596		-	
Derivative investment	-		-18,518	
Purchases of investments	-400,955,915		-1,989,039,830	
Security lending collateral	-1,022,532,044		<u>-1,155,982,440</u>	
Total accounts payable		-\$1,453,361,354		-\$3,201,245,667
Net assets at market value		<u>\$13,935,771,998</u>		\$11,922,538,917
Net assets at actuarial value		<u>\$12,935,503,398</u>		\$12,004,110,338
Net assets at valuation value (retiree health)		<u>\$1,941,224,810</u>		\$1,734,733,258

Note: Results may be slightly off due to rounding.



It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board of Administration has approved an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable.

The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

The chart shows the determination of the actuarial value of assets as of the valuation date.

## EXHIBIT G Determination of Actuarial Value of Assets as of June 30, 2014

1.	Market value of assets				\$13,935,771,998
2.	Calculation of unrecognized return <sup>(1)</sup>	Original Amount	Percent Not Recognized	Amount Not Recognized	
	(a) Year ended June 30, 2014	\$1,246,285,581	85.71%	\$1,068,244,784	<b>=</b>
	(b) Year ended June 30, 2013	683,838,549			
	(c) Year ended June 30, 2012	-770,325,267	_		
	(d) Year ended June 30, 2011	1,208,621,516	see footnote	(2) below	
	(e) Year ended June 30, 2010	392,956,483	02.220/	(7.07(104	
	(f) Year ended June 30, 2009	-2,964,832,484	83.33%	<u>-67,976,184</u>	
	(g) Total unrecognized return				\$1,000,268,600
3.	Preliminary actuarial value: (1) - (2g)				\$12,935,503,398
4.	Adjustment to be within 40% corridor				0
5.	Final actuarial value of assets: $(3) + (4)$				\$12,935,503,398
6.	Actuarial value as a percentage of market value: $(5) \div (1)$				92.8%
7.	Market value of health assets				\$2,091,334,640
8.	Valuation value of health assets $(5) \div (1) \times (7)$				\$1,941,224,810
9.	Deferred return recognized in each of the next 6 years:				
	(a) Amount recognized on 6/30/2015				\$164,445,560
	(b) Amount recognized on 6/30/2016				164,445,560
	(c) Amount recognized on 6/30/2017				164,445,560
	(d) Amount recognized on 6/30/2018				164,445,560
	(e) Amount recognized on 6/30/2019				164,445,560
	(f) Amount recognized on 6/30/2020				<u>178,040,797</u>
	(g) Subtotal (may not total exactly due to rounding)				\$1,000,268,600

<sup>(1)</sup> Total return minus expected return on a market value basis.

<sup>(2)</sup> Based on action taken by the Board on September 9, 2014, the total amount not recognized as of June 30, 2013 (i.e., -\$81,571,421) has been recognized in six level amounts, with five years of recognition remaining after the June 30, 2014 valuation.



## SECTION 3: Supplemental Valuation Details for the Los Angeles City Employees' Retirement System Measurement Under GASB 43 and 45 as of June 30, 2014

The chart below details the changes in the ARC from the prior valuation to the current year's valuation.

# EXHIBIT H Reconciliation of Recommended Contribution from June 30, 2013 to June 30, 2014<sup>1</sup>

Recommended Contribution as of June 30, 2013 <sup>2</sup> 5.80%			
Effect of demographic gains and losses <sup>3</sup>	0.18%		
Effect of investment gain <sup>3</sup>	-0.33%		
Effect of new trends and new starting costs <sup>3</sup>	-0.30%		
Effect of new assumptions <sup>4</sup>	0.46%		
Recommended Contribution as of June 30, 2014 <sup>2, 5</sup>	<u>5.81%</u>		

Based on contributions at the end of each pay period.



<sup>&</sup>lt;sup>2</sup> <u>Before</u> adjustments to phase in over five years the impact of the actuarial assumptions adopted as recommended in the June 30, 2011 triennial experience study.

<sup>&</sup>lt;sup>3</sup> Changes in unfunded actuarial accrued liability were amortized over 15 years.

<sup>&</sup>lt;sup>4</sup> Changes in unfunded actuarial accrued liability were amortized over 20 years.

<sup>&</sup>lt;sup>5</sup> June 30, 2014 contribution rates are before any adjustments that may be considered by the Board to phase in the City contribution rate impact of new actuarial assumptions adopted as recommended in the June 30, 2014 Triennial Experience Study.

EXHIBIT I Solvency Test for OPEB

#### **Portion of Accrued Liabilities Aggregate Actuarial Accrued Liabilities For Covered by Reported Assets** (1) (2) (3) (1) (2) (3) Retirees. Valuation Value Retirees. Beneficiaries, & Beneficiaries, & Valuation **Terminated** Active of Retiree Active **Terminated** Members **Dependents** Members Members **Date Members Dependents Health Assets** 06/30/2009 \$1,118,519,907\* 100% \$26,181,886 \$1,723,009,711 \$1,342,496,524 100% 11% 06/30/2010 34,454,928 1,075,165,650 1,425,726,017 100 100 25 1,124,253,854 06/30/2011 19,963,811 1,066,350,888 882,392,967 1,546,883,749 100 100 52 06/30/2012 24,454,075 1,083,168,136 1,184,778,016 1,642,373,560 100 100 45 06/30/2013 100 47 26,868,636 1,104,832,577 1,280,782,755 1,734,733,258 100 1,424,895,651 06/30/2014 41,188,181 100 49 1,196,769,321 1,941,224,810 100



<sup>\*</sup>Includes liabilities for the 2,393 ERIP-electing members.

SECTION 4: Supporting Information for the Los Angeles City Employees' Retirement System Measurement Under GASB 43 and 45 as of June 30, 2014

#### **EXHIBIT I**

### **Summary of Required Supplementary Information**

Valuation date	June 30, 2014		
Actuarial cost method	Entry Age Cost Method, level percent of salary.		
Amortization method	Level percent of payroll – assuming a 4.00% increase in total covered payroll.		
Amortization period	Multiple layers, closed amortization periods. Actuarial gains/losses are amortized over 15 ye Assumption or method changes are amortized over 20 years. Plan changes, including the 200 ERIP, are amortized over 15 years. Future ERIPs will be amortized over 5 years. Actuarial surplus is amortized over 30 years. The existing layers on June 30, 2012, except those arising from the 2009 ERIP and the two GASB 25/27 layers for the Retirement Plan, were combined and amortized over 30 years. Health trend and premium assumption changes are amortized of 15 years.		
Asset valuation method	is in each of the last seven years. Unrecognized that market return and the expected return on the ear period. The actuarial value of assets cannot be set value of assets.		
Actuarial assumptions:			
Investment rate of return	7.50%		
Inflation rate	3.25%		
Real across-the-board salary increase	0.75%		
Projected salary increases	Ranges from 10.50% to 4.40%		
Medical cost trend rate	See table on page 35 in Exhibit II.		
Dental cost trend rate	5.00%		
Medicare Part B premium	2.50% for the 2014-15 fiscal year (calculated by premium from 2014 to 2015). 5.00% for years to		
Plan membership:	June 30, 2014	June 30, 2013	
Current retirees, beneficiaries, and dependents receiving benefits	18,265	18,242	
Current active participants	24,009	24,441	
Terminated participants entitled but not yet eligible	<u>955</u>	<u>861</u>	
Total	43,229	43,544	



#### **EXHIBIT II**

#### **Actuarial Assumptions and Actuarial Cost Method**

Measurement Date: June 30, 2014

**Data**: LACERS provided detailed census data and financial data for post-employment

benefits.

**Post-Retirement Mortality Rates:** 

Healthy Members and All Beneficiaries: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020,

set back one year for males and with no setback for females.

Disabled Members: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020,

set forward seven years for males and set forward eight years for females.

The tables shown above were determined to contain sufficient provision appropriate to reasonably reflect future mortality improvement, based on a review of mortality experience as of the measurement date.

#### **Termination Rates Before Retirement:**

Pre-Retirement Mortality: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020,

set back one year for males and with no setback for females.

Rate (%)

	· /
Disability	Termination*
0.01	5.75
0.03	5.75
0.05	4.85
0.09	3.50
0.15	2.70
0.19	2.50
0.20	2.35
0.20	2.25
	0.01 0.03 0.05 0.09 0.15 0.19

<sup>\*</sup> Rates for members with five or more years of service. Termination rates are zero for members eligible to retire.



SECTION 4: Supporting Information for the Los Angeles City Employees' Retirement System Measurement Under GASB 43 and 45 as of June 30, 2014

Rates of termination for members with less than 5 years of service are as follows:

	Rate (%)
Service	Termination (Based on Service)
0	13.25
1	11.00
2	8.75
3	7.25
4	5.75

Retirement Rates: Rate (%)

	Tier	· 1	Tier	2
Age	Non-55/30	55/30	Non-55/30	55/30
50	6.0	0.0	0.0	0.0
51	3.0	0.0	0.0	0.0
52	3.0	0.0	0.0	0.0
53	3.0	0.0	0.0	0.0
54	16.0	0.0	0.0	0.0
55	6.0	20.0	3.5	8.0
56	6.0	14.0	3.5	7.0
57	6.0	14.0	3.5	7.0
58	6.0	14.0	3.5	7.0
59	6.0	14.0	3.5	7.0
60	6.0	14.0	5.5	7.0
61	6.0	14.0	5.5	9.0
62	7.0	15.0	5.5	11.0
63	7.0	15.0	5.5	13.0
64	7.0	16.0	5.5	16.0
65	12.0	17.0	12.0	19.0
66	12.0	17.0	12.0	19.0
67	12.0	17.0	12.0	19.0
68	12.0	17.0	12.0	19.0
69	12.0	17.0	12.0	19.0
70	100.0	100.0	100.0	100.0



Retirement Age and Benefit for **Inactive Vested Participants:** Assume retiree health benefit will be paid at the later of age 58 or the current attained Inactive vested with less than 10 years of service are excluded. **Exclusion of Inactive Vested:** First day of biweekly payroll following employment for new department employees or **Definition of Active Members:** immediately following transfer from other city department. **Unknown Data for Members:** Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male. Employment service is used for eligibility determination purposes. Benefit service is **Service:** used for benefit calculation purposes. **Future Benefit Accruals:** 1.0 year of service per year. **Net Investment Return:** 7.50%

Inflation: 3.25%; plus additional 0.75% "across the board" salary increases (other than inflation); plus the following merit and promotional increases:

Service	Percentage Increase		
0	6.50%		
1	6.20%		
2	5.10%		
3	3.10%		
4	2.10%		
5	1.10%		
6	1.00%		
7	0.90%		
8	0.70%		
9	0.60%		
10+	0.40%		



**Salary Increases:** 

**Actuarial Value of Assets:** The market value of assets less unrecognized returns in each of the last seven years.

Unrecognized return is equal to the difference between the actual and expected returns on a market value basis and is recognized over a seven-year period. The actuarial value of assets cannot be less than 60% or greater than 140% of the market value of

assets.

**Actuarial Cost Method**: Entry Age Cost Method, level percent of salary.

**Per Capita Cost Development:** The assumed costs on a composite basis are the future costs of providing

postemployment health care benefits at each age. To determine the assumed costs on a composite basis, historical premiums are reviewed and adjusted for increases in the

cost of health care services.

Maximum Dental Subsidy (same as premium)

<u>Carrier</u>	Participation Percent	Monthly 2014-2015 Fiscal Year Subsidy
Delta Dental PPO	77.6%	\$43.02
DeltaCare USA HMO	22.4%	\$12.71



# Per Capita Cost Development – Tier 1, Not Subject to Medical Subsidy Freeze: Participant Under Age 65 or Not Eligible for Medicare A & B

2014-2015 Fiscal Year		,	Single Party		Married/With Domestic Partne			Eligible Survivor		
CARRIER	Observed and Assumed Election Percent	Monthly Premium*	Maximum Subsidy**	Subsidy	Monthly Premium*	Maximum Subsidy**	Subsidy	Monthly Premium*	Maximum Subsidy**	Subsidy
Kaiser HMO	61.5%	\$758.85	\$1,522.04	\$758.85	\$1,517.70	\$1,522.04	\$1,517.70	\$758.85	\$758.85	\$758.85
Anthem Blue Cross PPO	21.1%	\$1,105.37	\$1,522.04	\$1,105.37	\$2,205.95	\$1,522.04	\$1,522.04	\$1,105.37	\$758.85	\$758.85
Anthem Blue Cross HMO	17.4%	\$881.75	\$1,522.04	\$881.75	\$1,758.71	\$1,522.04	\$1,522.04	\$881.75	\$758.85	\$758.85

- \* With the exception of Kaiser, the amounts above reflect the inclusion of the vision insurance plan premium.
- \*\* The amounts shown in the tables above apply to Tier 1 members only. For Tier 2 members hired on or after July 1, 2013, the medical plan will be for single coverage and for retiree only. In addition, that maximum subsidy will be set at an amount equal to the lowest-cost single-party plan for those not enrolled in Medicare Parts A and B (\$758.85 per month for 2014-2015).

#### Participant Eligible for Medicare A & B

2014-2015 Fiscal Year		;	Single Party	Married/Wit		Vith Domestic Partner		Eligible Survivor		or
CARRIER	Observed and Assumed Election Percent	Monthly Premium*	Maximum Subsidy**	Subsidy	Monthly Premium*	Maximum Subsidy**	Subsidy	Monthly Premium*	Maximum Subsidy**	Subsidy
Kaiser Senior Adv. HMO	58.2%	\$229.82	\$229.82	\$229.82	\$459.64	\$459.64	\$459.64	\$229.82	\$229.82	\$229.82
Anthem Blue Cross Medicare Supplement	30.0%	\$508.50	\$508.50	\$508.50	\$1,012.20	\$925.17	\$925.17	\$508.50	\$508.50	\$508.50
UHC Medicare Adv. HMO***	11.8%	\$246.57	\$246.57	\$246.57	\$488.34	\$488.34	\$488.34	\$246.57	\$246.57	\$246.57

- \* With the exception of Kaiser, the amounts above reflect the inclusion of the vision insurance plan premium.
- \*\* The amounts shown in the tables above apply to Tier 1 members only. For Tier 2 members hired on or after July 1, 2013, the maximum medical plan premium subsidy will be for single coverage and for retiree only (for example, \$229.82 and \$508.73 per month for Kaiser HMO and Blue Cross Medicare Supplement, respectively in 2014-2015).
- \*\*\* Rates for CA plan.



Members who are subject to the retiree medical subsidy freeze will have monthly health insurance subsidy maximums fixed at the levels in effect at July 1, 2011, as shown in the table below:

	Single Party	Married/With Domestic Partner	Eligible Survivor
Under 65 – All Plans	\$1,190.00	\$1,190.00	\$593.62
Over 65			
Kaiser Senior Adv. HMO	\$203.27	\$406.54	\$203.27
Anthem Blue Cross	\$478.43	\$530.52	\$478.43
UHC Medicare Adv. HMO*	\$219.09	\$433.93	\$219.09

<sup>\*</sup> Rates for CA plan.



**Marital Status:** 60% of male and 30% of female retirees who receive a subsidy are assumed to be

married or have a qualified domestic partner and elect dependent coverage.

**Spouse Age Difference:** Male retirees are assumed to be 4 years older than their female spouses. Female retirees

are assumed to be 2 years younger than their male spouses.

**Surviving Spouse Coverage:** With regard to members who are currently alive, 100% of eligible spouses or domestic

partners are assumed to elect continued health coverage after the Member's death.

**Participation:** Retiree Medical and Dental Coverage Election:

Service	Percent
Range	Covered*
10 – 14	65%
15 - 19	80%
20 - 24	90%
25 and Over	95%

<sup>\*</sup> Inactive members are assumed to elect coverages at 50% of the rates shown above.

100% of retirees becoming eligible for Medicare are assumed to be covered by both Parts A and B.



### **Health Care Cost Subsidy Trend Rates:**

Trends to be applied in following fiscal years, to all health plans.

PLAN	Anthem Blue Cross PPO, Under Age 65	Anthem Blue Cross Medicare Supplement	Kaiser HMO, Under Age 65	Kaiser Senior Advantage HMO	Anthem Blue Cross HMO, Under 65	UHC Medicare Adv. HMC
Trend to be applied to 2014-2015 Fiscal Year premium	0.48%	6.55%	7.52%	5.55%	7.59%	6.59%
			The fiscal year tre year trend rates:	nd rates are based	on the follow	ring calenda
	Trend (A	pprox.)	Trend (	te following y	ear premiun	
Fiscal Year	Medicare	Non-Medicare	Calendar Year	Non-Me	dicare	Medicare
2015-2016	6.88%	6.88%	2015	7.00%		7.00%
2016-2017	6.63%	6.63%	2016	6.75%		6.75%
2017-2018	6.38%	6.38%	2017	6.50	%	6.50%
2018-2019	6.13%	6.13%	2018	6.25	%	6.25%
2019-2020	5.88%	5.88%	2019	6.00	%	6.00%
2020-2021	5.63%	5.63%	2020	5.75	%	5.75%
2021-2022	5.38%	5.38%	2021	5.50	%	5.50%
2022-2023	5.13%	5.13%	2022	5.25	%	5.25%
2023 and later	5.00%	5.00%	2023 and later	5.00	%	5.00%
Dental Premium Trend		5.00% for all year	ars			
Medicare Part B Premium Trend			014-15 fiscal year (c mium from 2014 to 2			



**Health Care Reform:** As previously directed by LACERS, we have not reflected in the current valuation the

impact of potential excise tax imposed by the Affordable Care Act (ACA) and related statues on certain health plans was not included in calculating the contribution rates for the employer. We understand that a proposed statement currently under review by the Governmental Accounting Standards Board (GASB) for financial reporting purposes is expected to require the inclusion of the excise tax in the liability. The current exposure draft of the statement would be effective for fiscal years beginning

after December 15, 2015.

**Administrative Expenses:** No administrative expenses were valued separately from the premium costs.

**Plan Design:** Development of plan liabilities was based on the substantive plan of benefits in effect

as described in Exhibit III.

**Assumption Changes Since Prior Valuation:** 

Health care cost trend rates have been updated.

Starting premium costs were revised to reflect updated data.

Medical and dental carrier election assumptions were updated.

Some of the demographic assumptions have been updated as a result of the experience

study as of June 30, 2014.



**Change in Actuarial Assumptions:** Based on the June 30, 2014 Actuarial Experience Study, the following actuarial

assumptions were changed. Previously, these assumptions were as follows:

# **Post-Retirement Mortality Rates:**

Healthy Members and All Beneficiaries:

RP-2000 Combined Healthy Mortality Table, set back two years for males and set

back one year for females.

Disabled Members: RP-2000 Combined Healthy Mortality Table, set forward five years for males and set

forward six years for females.

### **Termination Rates Before Retirement:**

Pre-Retirement Mortality:

RP-2000 Combined Healthy Mortality table, set back two years for males, one year for females

Age	Termination*
25	5.50
30	5.35
35	4.35
40	3.15
45	2.30
50	1.85
55	1.75
60	1.75

All deaths are assumed to be non-duty related.

No termination is assumed after a member is eligible for retirement.

\* Termination rates for actives with less than 5 years of service are as follows:

	Rate (%)
Service	Termination (Based on Service)
0	11.25
1	8.00
2	7.25
3	6.25
4	5.50



# **Changes in Actuarial Assumptions (continued):**

# **Retirement Rates:**

	Rate	(%)
	Tier	1
Age	Non-55/30	55/30
50	8.0	0.0
51	4.0	0.0
52	4.0	0.0
53	4.0	0.0
54	15.0	0.0
55	8.0	20.0
56	8.0	15.0
57	8.0	15.0
58	8.0	15.0
59	8.0	15.0
60	8.0	15.0
61	8.0	16.0
62	8.0	17.0
63	8.0	18.0
64	8.0	19.0
65	13.0	20.0
66	13.0	20.0
67	13.0	20.0
68	13.0	20.0
69	13.0	20.0
70	100.0	100.0

Retirement Age and Benefit for Inactive Vested Participants:

Assume retiree health benefit will be paid at the later of age 57 or the current attained age.



# **Changes in Actuarial Assumptions (continued):**

**Net Investment Return:** 7.75%

**Salary Increases:** Inflation: 3.50%; additional 0.75% "across the board" salary increases (other than

inflation); plus the following promotional and merit increases:

For members with under 5 years of service:

Service	Percentage Increase
0	7.00%
1	6.25%
2	4.75%
3	3.50%
4	2.25%

For members with 5 or more years of service:

Age	Percentage Increase*
20 – 24	2.25%
25 - 29	2.00%
30 - 34	1.25%
35 - 39	1.00%
40 - 44	0.75%
45 - 49	0.50%
50 - 54	0.40%
55 – 69	0.40%

<sup>\*</sup> At central age in age range shown.

**Funding Policy:** 

The plan sponsor of the City of Los Angeles Employees' Retirement System makes contributions equal to the normal cost adjusted by an amount to amortize any surplus or unfunded actuarial accrued liability. Both the normal cost and the actuarial accrued liability are determined under the Entry Age cost method and are calculated on an



# **Changes in Actuarial Assumptions (continued):**

**Funding Policy (continued):** 

individual basis. Entry age is calculated as age on the valuation date minus years of service. Under the current funding policy, changes in the UAAL due to actuarial gains/losses are amortized over separate 15 year periods. Any changes in the UAAL due to assumption or method changes are amortized over separate 30 year periods. Plan changes, including the 2009 ERIP, are amortized over separate 15 year periods. Future ERIPs will be amortized over 5 years. Any actuarial surplus is amortized over 30 years. All the bases on or before June 30, 2012, except those arising from the 2009 ERIP and the two GASB 25/27 layers, were combined and amortized over 30 years effective June 30, 2012.

In no event will the recommended contribution be less than the minimum Annual Required Contribution (ARC) as determined under GASB Statements 25 and 27.



#### **EXHIBIT III**

# **Summary of Plan**

This exhibit summarizes the major benefit provisions as included in the valuation. To the best of our knowledge, the summary represents the substantive plans as of the measurement date. It is not intended to be, nor should it be interpreted as, a complete statement of all benefit provisions.

# **Membership Eligibility:**

Tier 1(§4.1002(a)): All employees who became members of the Retirement System before July 1, 2013,

and certain non-Tier 2 employees who became members of the Retirement System on

or after July 1, 2013.

Tier  $2(\S4.1052(a))$ : All employees who became members of the Retirement System on or after July 1,

2013, except as provided otherwise in Section 4.1002.1 of the LACERS

Administrative Code.

# **Benefit Eligibility:**

Tier 1 (§4.1111(a))

and Tier 2 (§4.1121(a)): Retired age 55 or older with at least 10 years of service (including deferred

vested members who terminate employment and receive a retirement benefit from LACERS), or if retirement date is between October 2, 1996, and September 30, 1999 at age 50 or older with at least 30 years of service. Benefits are also payable to spouses, domestic partners, or other qualified dependents while the retiree is alive. Please note that the health subsidy is not payable to a disabled retiree before the

member reaches age 55.

# Medical Subsidy for Members Not Subject to Freeze:

Under Age 65 or Over Age 65 And Enrolled in Medicare Part B

*Tier 1 (§4.1111(b)):* 

The System will pay 4% of the maximum health subsidy (limited to actual premium) for each year of Service Credit, up to 100% of the maximum health subsidy. As of

July 1, 2014, the maximum health subsidy is \$1,464.00 per month, and will increase

to \$1,580.08 on January 1, 2015.



*Tier 2 (§4.1121(c)):* 

The System will pay 40% of the maximum health subsidy (limited to actual premium) for a retiree with 10 years of service credit and an additional 3% for each additional year of Service Credit, up to 100% of the maximum health subsidy. As of July 1, 2014, the maximum health subsidy is \$729.83 per month and will increase to \$787.87 on January 1, 2015.

Over Age 65 and Enrolled in Both Medicare Parts A and B

Tier 1 (§4.1111(e)) and Tier 2 (§4.1121(d)):

For retirees, a maximum health subsidy limited to the highest approved single-party monthly premium of the plan per §4.1112(d) in which the member is enrolled, is provided subject to the following vesting schedule:

Completed Years of Service	Vested Percentage
10-14	75%
15-19	90%
20+	100%

# **Subsidy Freeze for Tier 1:**

As of the June 30, 2011 valuation, the retiree health benefits program was changed to freeze the medical subsidy for non-retired members who did not begin to contribute an additional 2% or 4% of employee contributions to the Pension Plan.

The frozen subsidy is different for Medicare and non-Medicare retirees.

The freeze applies to the medical subsidy limits at the 2011 calendar year level.

The freeze does not apply to the dental subsidy or the Medicare Part B premium reimbursement.

# **Dependents:**

*Tier 1 (§4.1122(e)(4)):* 

An additional amount is added for coverage of dependents which shall not exceed the amount provided to a retiree not enrolled in Medicare Parts A and B and covered by the same medical plan with the same years of service. The combined member and dependent subsidy shall not exceed the actual premium.

Tier  $2 (\S 4.1121(d)(4))$ :

None of the subsidy may be applied toward coverage for dependents.



## **Dental Subsidy for Members:**

Tier 1 (§4.1114(b)): The System will pay 4% of the maximum dental subsidy (limited to actual premium)

for each year of Service Credit, up to 100% of the maximum dental subsidy. As of July 1, 2014, the maximum dental subsidy is \$42.80 per month and will increase to

\$43.24 beginning January 1, 2015.

There is no subsidy available to spouses or domestic partners. There is also no

reimbursement for dental plans not sponsored by the System.

Tier 2 (§4.1124(b)): The System will pay 40% of the maximum dental subsidy (limited to actual premium)

for a retiree with 10 years of service credit and an additional 3% for each additional year of Service Credit, up to 100% of the maximum dental subsidy. As of July 1, 2014, the maximum dental subsidy is \$42.80 per month and will increase to \$43.24

beginning January 1, 2015.

Medicare Part B Subsidy for Members:

Tier 1 (§4.1113) and Tier 2 (§4.1123):

If a City Retiree is covered by both Medicare Parts A and B, and enrolled in a LACERS medical plan or participates in the LACERS Retiree Medical Premium Reimbursement Program, LACERS will reimburse the retiree the basic Medicare

Part B premium.

**Surviving Spouse Subsidy** 

Tier 1 (§4.1115) The surviving spouse or domestic partner will be entitled to a health subsidy

(limited to the actual single-party premium) based on the member's years of

service and the surviving dependent's eligibility for Medicare.

Under Age 65 or Over Age 65

And Only Enrolled in Medicare Part B:

The maximum health subsidy available for survivors is the Kaiser single-party premium (\$729.83 per month as of July 1, 2014, increasing to \$787.87 on

January 1, 2015) or the single-party premium of the plan in which the survivor is

enrolled, whichever is less.



SECTION 4: Supporting Information for the Los Angeles City Employees' Retirement System Measurement Under GASB 43 and 45 as of June 30, 2014

Over Age 65 and Enrolled in Both Medicare Parts A and B:

For survivors, a maximum health subsidy limited to the single-party monthly premium of the plan in which the survivor is enrolled, is provided subject to the following vesting schedule:

Completed Years of Service	Vested Percentage
10-14	75%
15-19	90%
20+	100%

**Surviving Spouse Subsidy For Tier 2:** 

No medical plan premium subsidy shall be provided to the survivor of a Tier 2 retiree.



#### **EXHIBIT IV**

#### **Definitions of Terms**

The following list defines certain technical terms for the convenience of the reader:

# Assumptions or Actuarial Assumptions:

The estimates on which the cost of the Plan is calculated including:

- (a) <u>Investment return</u> the rate of investment yield that the Plan will earn over the long-term future;
- (b) <u>Mortality rates</u> the death rates of employees and pensioners; life expectancy is based on these rates;
- (c) <u>Retirement rates</u> the rate or probability of retirement at a given age;
- (d) <u>Turnover rates</u> the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.

# Actuarial Present Value of Total Projected Benefits (APB):

Present value of all future benefit payments for current retirees and active employees taking into account assumptions about demographics, turnover, mortality, disability, retirement, health care trends, and other actuarial assumptions.

**Normal Cost:** 

The amount of contributions required to fund the benefit allocated to the current year of service.

Actuarial Accrued Liability For Actives:

The equivalent of the accumulated normal costs allocated to the years before the valuation date.

Actuarial Accrued Liability For Retirees:

The single sum value of lifetime benefits to existing retirees. This sum takes account of life expectancies appropriate to the ages of the retirees and of the interest which the sum is expected to earn before it is entirely paid out in benefits.



**Actuarial Value of Assets (AVA):** The value of assets used by the actuary in the valution. These may be at market value

or some other method used to smooth variations in market value from one valuation to

the next.

**Funded Ratio:** The ratio AVA/AAL.

Unfunded Actuarial Accrued Liability (UAAL):

The extent to which the actuarial accrued liability of the Plan exceeds the assets of the Plan. There is a wide range of approaches to paying off the unfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period

of time.

Amortization of the Unfunded Actuarial Accrued Liability:

Payments made over a period of years equal in value to the Plan's unfunded actuarial

accrued liability.

**Investment Return (discount rate):** 

The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next. If the plan is funded on a pay-as-you-go basis, the discount rate is

tied to the expected rate of return on day-to-day employer funds.

**Covered Payroll:** Annual reported salaries for all active participants on the valuation date.

ARC as a Percentage of Covered

**Payroll:** The ratio of the annual required contribution to covered payroll.

**Health Care Cost Trend Rates:** The annual rate of increase in net claims costs per individual benefiting from the Plan.

**Annual Required** 

**Contribution (ARC):** The ARC is equal to the sum of the normal cost and the amortization of the unfunded

actuarial accrued liability.



**Net OPEB Obligation (NOO):** The NOO is the cumulative difference between the annual OPEB cost and actual

contributions made. If the plan is not pre-funded, the actual contribution would be

equal to the annual benefit payments less retiree contributions.

**Annual OPEB Cost (AOC):** Annual OPEB cost is the measure required by GASB 45 of a sole or agent employer's

"cost" of participating in an OPEB plan. When an employer has no net OPEB obligation, annual OPEB cost is equal to the ARC. When a net OPEB obligation has a liability (positive) balance, annual OPEB cost is equal to (a) the ARC, plus (b) one year's interest on the beginning balance of the net OPEB obligation, less (c) an adjustment to the ARC to offset, approximately, the amount included in the ARC for amortization of the past contribution deficiencies. When a net OPEB obligation has an asset (negative) balance, the interest adjustment should be deducted from and the

ARC adjustment should be added to the ARC, to determine annual OPEB cost.

**ARC Adjustment:** The ARC adjustment is an amortization payment based on the prior year NOO. The

purpose of the interest and ARC adjustments is to avoid "double-counting" annual OPEB cost and liabilities. Without the adjustments, annual OPEB cost and the net OPEB obligation (liability) would be overstated by the portion of the amortization amount previously recognized in annual OPEB cost. With the adjustments, annual OPEB cost should be approximately equal to the ARC that would have been charged if all prior ARCs had been paid in full, plus one year's interest on the net OPEB

obligation.

**Employer Contributions:** For the purposes of GASB 43/45, an employer has contributed to an OPEB plan if the

employer has (a) provided benefits directly to retired plan members or their beneficiaries, (b) paid insurance premiums to insure the payment of benefits, or (c) irrevocably transferred assets to a qualifying trust, or equivalent arrangement, in which plan assets are dedicated to providing benefits to retirees and their beneficiaries in accordance with the terms of the plan and are legally protected from creditors of the

employer(s) or plan administrator.

## **EXHIBIT V**

## **Accounting Requirements**

The Governmental Accounting Standards Board (GASB) issued Statement Number 43 -- Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans, and Statement Number 45 - Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions. Under these statements, all state and local government entities that provide other postemployment benefits (OPEB) are required to report the cost of these benefits on their financial statements. The accounting standards supplement cash accounting, under which the expense for postemployment benefits is equal to benefit and administrative costs paid on behalf of retirees and their dependents (i.e., a pay-as-you-go basis).

The statements cover postemployment benefits of health, prescription drug, dental, vision and life insurance coverage for retirees; long-term care coverage, life insurance and death benefits that are *not* offered as part of a pension plan; and long-term disability insurance for employees. The benefits valued in this report are limited to those described in Exhibit III of Section 4, which are based on those provided under the terms of the substantive plan in effect at the time of the valuation and on the pattern of sharing costs between the employer and plan members. The projection of benefits is not limited by legal or contractual limits on funding the plan unless those limits clearly translate into benefit limits on the substantive plan being valued.

The new standards introduce an accrual-basis accounting requirement, thereby recognizing the employer cost of postemployment benefits over an employee's career. The standards also introduce a consistent accounting requirement for both pension and non-pension benefits.

The total cost of providing postemployment benefits is projected, taking into account assumptions about demographics, turnover, mortality, disability, retirement, health care trends, and other actuarial assumptions. These assumptions are summarized in Exhibit II of Section 4. This amount is then discounted to determine the actuarial present value of the total projected benefits (APB). The actuarial accrued liability (AAL) is the portion of the present value of the total projected benefits allocated to years of employment prior to the measurement date. The unfunded actuarial accrued liability (UAAL) is the difference between the AAL and actuarial value of assets in the Plan.

Once the UAAL is determined, the Annual Required Contribution (ARC) is determined as the normal cost (the APB allocated to the current year of service) and the amortization of the UAAL. This ARC is compared to actual contributions made and any difference is reported as the Net OPEB Obligation (NOO). In addition, Required Supplementary Information (RSI) must be reported, including historical information about the UAAL and the progress in funding the Plan. Exhibit IV of Section 4 contains a definition of terms as well as more information about GASB 43/45 concepts.

The calculation of an accounting obligation does not, in and of itself, imply that there is any legal liability to provide the benefits valued, nor is there any implication



that the Employer is required to implement a funding policy to satisfy the projected expense.

Actuarial calculations reflect a long-term perspective, and the methods and assumptions use techniques designed to reduce short-term volatility in accrued liabilities and the actuarial value of assets, if any. Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events far into the future, and the actuarially determined amounts are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future.

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# Los Angeles City Employees' Retirement System

Governmental Accounting Standards (GAS) 67 Actuarial Valuation as of June 30, 2014

This report has been prepared at the request of the Board of Administration to assist in administering the Fund. This valuation report may not otherwise be copied or reproduced in any form without the consent of the Board of Administration and may only be provided to other parties in its entirety. The measurements shown in this actuarial valuation may not be applicable for other purposes.

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December 4, 2014

Board of Administration Los Angeles City Employees' Retirement System 202 W. 1<sup>st</sup> Street, Suite 500 Los Angeles, CA 90012-4401

#### Dear Board Members:

We are pleased to submit this Governmental Accounting Standards (GAS) 67 Actuarial Valuation as of June 30, 2014. It contains various information that will need to be disclosed in order to comply with GAS 67.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist in administering the System. The census and financial information on which our calculations were based was prepared by LACERS. That assistance is gratefully acknowledged.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; and changes in plan provisions or applicable law.

The actuarial calculations were completed under the supervision of Andy Yeung, ASA, MAAA, FCA, Enrolled Actuary. We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in the actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and expectations for the System.

We look forward to reviewing this report with you and to answering any questions.

Sincerely,

Segal Consulting, a Member of The Segal Group, Inc.

Bv:

Paul Angelo, FSA, MAAA, FCA, EA Senior Vice President and Actuary Andy Yeung, ASA, MAAA, FCA, EA

Vice President and Associate Actuary

JRC/bqb

# SECTION 1

# **VALUATION SUMMARY**

Purposei
Significant Issues in Valuation Yeari
Summary of Key Valuation Resultsiii

# **SECTION 2**

# **GASB 67 INFORMATION**

EXHIBIT 1 General Information – "Financial Statements", Note Disclosures and Required Supplementary Information for a Single-Employer Pension Plan
EXHIBIT 2  Net Pension Liability
EXHIBIT 3 Schedules of Changes in Net Pension Liability – Last Two Fiscal Years
EXHIBIT 4 Schedule of Contributions – Last Ten Fiscal Years
EXHIBIT 5 Projection of Pension Plan's Fiduciary Net Position for Use in Calculation of Discount Rate as of June 30, 2014



# **Purpose**

This report has been prepared by Segal Consulting to present certain disclosure information required by Statement No. 67 of the Governmental Accounting Standards Board as of June 30, 2014. This valuation is based on:

- > The benefit provisions of the Pension Plan, as administered by the Board of Administration;
- > The characteristics of covered active members, inactive vested members, and retired members and beneficiaries as of June 30, 2014, provided by LACERS;
- > The assets of the Plan as of June 30, 2014, provided by LACERS;
- > Economic assumptions regarding future salary increases and investment earnings; and
- > Other actuarial assumptions, regarding employee terminations, retirement, death, etc.

# Significant Issues in Valuation Year

The following key findings were the result of this actuarial valuation:

- > The Governmental Accounting Standards Board (GASB) approved two new Statements affecting the reporting of pension liabilities for accounting purposes. Statement 67 replaces Statement 25 and is for plan reporting. Statement 68 replaces Statement 27 and is for employer reporting. Statement 67 is effective with the fiscal year ending June 30, 2014 for plan reporting and Statement 68 is effective with the fiscal year ending June 30, 2015 for employer reporting. The information contained in this valuation is intended to be used (along with other information) in order to comply with Statement 67.
- > It is important to note that the new GASB rules only redefine pension liability and expense for financial reporting purposes, and do not apply to contribution amounts for pension funding purposes. Employers and plans can still develop and adopt funding policies under current practices.
- > When measuring pension liability, GASB uses the same actuarial cost method (Entry Age method) and the same type of discount rate (expected return on assets) as LACERS uses for funding. This means that the Total Pension Liability (TPL) measure for financial reporting shown in this report is determined on the same basis as LACERS' Actuarial Accrued Liability (AAL) measure for funding. We note that the same is generally true for the Normal Cost component of the annual plan cost for funding and financial reporting.



## SECTION 1: Valuation Summary for the Los Angeles City Employees' Retirement System

- > The Net Pension Liability (NPL) is equal to the difference between the TPL and the Plan's Fiduciary Net Position. The Plan's Fiduciary Net Position is equal to the market value of assets and therefore, the NPL measure is very similar to an Unfunded Actuarial Accrued Liability (UAAL) calculated on a market value basis.
- > Even though a change in the actuarial assumptions increased the TPL by about \$0.79 billion, the NPL still decreased from \$4.73 billion as of June 30, 2013 to \$4.46 billion as of June 30, 2014 due to the approximately 18% return on the market value of assets during 2013/2014 that exceeded the assumption of 7.75% (used in the June 30, 2013 valuation). Changes in these values during the last two fiscal years ending June 30, 2013 and June 30, 2014 can be found in Exhibit 3.
- > The NPLs measured as of June 30, 2014 and 2013 have been determined from the actuarial valuations as of June 30, 2014 and June 30, 2013, respectively.
- > The discount rates used to determine the TPL and NPL as of June 30, 2014 and 2013 were 7.50% and 7.75%, respectively, following the same assumptions used by the System in the pension funding valuations as of the same dates. Details on the derivation of the discount rate can be found in Exhibit 5 of Section 2. Various other information that is required to be disclosed can be found throughout Exhibits 1 through 4 in Section 2.

# SECTION 1: Valuation Summary for the Los Angeles City Employees' Retirement System

# **Summary of Key Valuation Results**

	2014	2013
Disclosure elements for fiscal year ending June 30:		
Service cost <sup>(1)</sup>	\$317,185,480	\$312,372,769
Total pension liability	16,248,853,099	14,881,663,162
Plan fiduciary net position	11,791,079,473	10,154,486,098
Net pension liability	4,457,773,626	4,727,177,064
Schedule of contributions for fiscal year ending June 30:		
Actuarially determined contributions	\$357,649,232	\$346,180,852
Actual contributions	357,649,232	346,180,852
Contribution deficiency (excess)	0	0
Demographic data for plan year ending June 30:		
Number of retired members and beneficiaries	17,532	17,362
Number of vested terminated members <sup>(2)</sup>	6,031	5,799
Number of active members	24,009	24,441
Key assumptions as of June 30:		
Investment rate of return	7.50%	7.75%
Inflation rate	3.25%	3.50%
Projected salary increases <sup>(3)</sup>	Ranges from 4.40% to 10.50%	Ranges from 4.65% to 11.25%

<sup>(1)</sup> The service cost is always based on the previous year's assumptions, meaning both values are based on those assumptions shown as of June 30, 2013.



<sup>(2)</sup> Includes terminated members due a refund of employee contributions.

<sup>(3)</sup> Includes inflation at 3.25% (3.50% for the June 30, 2013 valuation) plus real across the board salary increase of 0.75% plus merit and promotional increases.

#### **EXHIBIT 1**

General Information – "Financial Statements", Note Disclosures and Required Supplementary Information for a Single-Employer Pension Plan

# **Plan Description**

*Plan administration.* The Los Angeles City Employees' Retirement System (LACERS) was established by City Charter in 1937. LACERS is a single employer public employee retirement system whose main function is to provide retirement benefits to the civilian employees of the City of Los Angeles.

Under the provisions of the City Charter, the Board of Administration (the "Board") has the responsibility and authority to administer the Plan and to invest its assets. The Board members serve as trustees and must act in the exclusive interest of the Plan's members and beneficiaries. The Board has seven members: four members, one of whom shall be a retired member of the system, shall be appointed by the Mayor subject to the approval of the Council; two members shall be active employee members of the system elected by the active employee members; one shall be a retired member of the system elected by the retired members of the system.

Plan membership. At June 30, 2014, pension plan membership consisted of the following:

Retired members or beneficiaries currently receiving benefits	17,532
Vested terminated members entitled to, but not yet receiving benefits <sup>(1)</sup>	6,031
Active members	<u>24,009</u>
Total	47.572

<sup>(1)</sup> Includes terminated members due a refund of employee contributions.

Benefits provided. LACERS provides service retirement, disability, death and survivor benefits to eligible employees. Employees of the City become members of LACERS on the first day of employment in a position with the City in which the employee is not excluded from membership. Members employed prior to July 1, 2013 are designated as Tier 1 and those employed on or after July 1, 2013 are designated as Tier 2 (unless a specific exemption applies to the employee, providing a right to Tier 1 status).

Tier 1 members are eligible to retire for service with a normal retirement benefit once they attain the age of 70, or the age of 60 with 10 or more years of continuous service, or the age of 55 with 30 or more years of service. Tier 2 members are eligible to

## SECTION 2: GASB 67 Information for Los Angeles City Employees' Retirement System

retire for service with a normal retirement benefit once they attain the age of 70, or the age of 65 with 10 or more years of continuous service.

Tier 1 members are eligible to retire for disability once they have 5 or more years of continuous service. Tier 2 members are eligible to retire for disability once they have 10 or more years of continuous service.

Under the Tier 1 formula, the monthly service retirement allowance at normal retirement age is 2.16% of final average monthly compensation per year of service credit. Reduced retirement allowances are available for early retirement for Tier 1 members reaching age 55 with 10 or more years of continuous service, or with 30 or more years of service at any age. Sample Tier 1 early retirement reduction factors, for retirement below age 60, are as follows:

	Early Retirement
Age	<b>Reduction Factor</b>
45	0.6250
50	0.7750
55	0.9250
60	1.0000

Under the Tier 2 formula, the monthly service retirement allowance at normal retirement age is 2.00% of final average monthly compensation per year of service credit. Reduced retirement allowances are available for early retirement for Tier 2 members reaching age 55 with 10 or more years of continuance service. The Tier 2 retirement factors at early retirement ages are as follows:

Retirement		Retirement
Factor	Age	Factor
0.7700%	60	1.2200%
0.8400%	61	1.3400%
0.9200%	62	1.4800%
1.0100%	63	1.6300%
1.1100%	64	1.8100%
	Factor 0.7700% 0.8400% 0.9200% 1.0100%	Factor         Age           0.7700%         60           0.8400%         61           0.9200%         62           1.0100%         63

Under Tier 1, pension benefits are calculated based on the highest average salary earned during a 12-month period (including base salary plus regularly assigned bonuses or premium pay). Under Tier 2, pension benefits are calculated based on the highest average salary earned during a 36-month period (limited to base pay).

## SECTION 2: GASB 67 Information for Los Angeles City Employees' Retirement System

For Tier 1 members, the maximum monthly retirement allowance is 100% of the final average monthly compensation. For Tier 2 members, the maximum monthly retirement allowance is 75% of the final average monthly compensation.

In lieu of the service retirement allowance under the Tier 1 or Tier 2 formula ("unmodified option"), the member may choose an optional retirement allowance. The unmodified option provides the highest monthly benefit and a 50% continuance to an eligible surviving spouse or domestic partner for Tier 1 members (no continuance is provided to beneficiaries of Tier 2 members under the unmodified option). The optional retirement allowances require a reduction in the unmodified option amount in order to allow the member the ability to provide various benefits to a surviving spouse, domestic partner, or named beneficiary.

LACERS provides annual cost-of-living adjustments (COLAs) to all retirees. The cost-of-living adjustments are made each July 1 based on the percentage change in the average of the Consumer Price Index for the Los Angeles-Riverside-Orange County Area--All Items For All Urban Consumers. It is capped at 3.0% for Tier 1 and 2.0% for Tier 2. Tier 2 members may purchase additional 1% COLA protection at full actuarial cost.

LACERS contributes to the retirement plan based upon actuarially determined contribution rates adopted by the Board of Administration. Employer contribution rates are adopted annually based upon recommendations received from LACERS' actuary after the completion of the annual actuarial valuation. The average employer contribution rate as of June 30, 2014 (based on the June 30, 2012 valuation) was 19.84% of compensation<sup>1</sup>.

All members are required to make contributions to LACERS regardless of the tier in which they are included. Currently, most Tier 1 members contribute at 11% of compensation and all Tier 2 members contribute at 10% of compensation.

3

<sup>&</sup>lt;sup>1</sup> After adjustments to phase in over five years the impact of new actuarial assumptions (as a result of the June 30, 2011 Triennial Experience Study) on the City's contributions.

# EXHIBIT 2

## **Net Pension Liability**

The components of the net pension liability of LACERS are as follows:

	<b>June 30, 2014</b>	<b>June 30, 2013</b>
Total pension liability	\$16,248,853,099	\$14,881,663,162
Plan fiduciary net position	<u>-11,791,079,473</u>	<u>-10,154,486,098</u>
System's net pension liability	\$4,457,773,626	\$4,727,177,064
Plan fiduciary net position as a percentage of the total pension liability	72.57%	68.23%

The net pension liability was measured as of June 30, 2014 and 2013 and determined based upon the Plan fiduciary net position (plan assets) and total pension liability from actuarial valuations as of June 30, 2014 and 2013, respectively.

Actuarial assumptions. The total pension liabilities as of June 30, 2014 and June 30, 2013 were determined by actuarial valuations as of June 30, 2014 and June 30, 2013, respectively. The actuarial assumptions used in this June 30, 2014 valuation were based on the results of an experience study for the period from July 1, 2011 through June 30, 2014. They are the same as the assumptions used in the June 30, 2014 funding actuarial valuation for LACERS. The assumptions are outlined on page 8 of this report. In particular, the following actuarial assumptions were applied to all periods included in the measurement:

Inflation 3.25%

Salary increases Ranges from 4.40% to 10.50% based on years of service, including

inflation

Investment rate of return 7.50%, net of pension plan investment expense, including inflation

Other assumptions Same as those used in the June 30, 2014 actuarial valuation

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target allocation and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before deducting investment expenses, used in the derivation of the long-term expected investment rate of return assumption are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
U.S. Large Cap Equity	20.40%	5.94%
U.S. Small Cap Equity	3.60%	6.64%
Developed International Equity	21.75%	6.98%
Emerging Market Equity	7.25%	8.48%
Core Bonds	16.53%	0.71%
High Yield Bonds	2.47%	2.89%
Private Real Estate	5.00%	4.69%
Cash	1.00%	(0.46)%
Credit Opportunities	5.00%	3.07%
Public Real Assets	5.00%	3.41%
Private Equity	12.00%	10.51%
Total	100.00%	

Discount rate: The discount rates used to measure the total pension liability were 7.50% and 7.75% as of June 30, 2014 and June 30, 2013, respectively. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the actuarially determined contribution rates. For this purpose, only employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs for future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments for current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability as of both June 30, 2014 and June 30, 2013.

Sensitivity of the net pension liability to changes in the discount rate. The following presents the net pension liability of LACERS as of June 30, 2014, calculated using the discount rate of 7.50%, as well as what LACERS' net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.50%) or 1-percentage-point higher (8.50%) than the current rate:

	1% Decrease (6.50%)	Current Discount (7.50%)	1% Increase (8.50%)	
Net pension liability as of June 30, 2014	\$6,655,035,324	\$4.457.773.626	\$2,631,737,614	_

EXHIBIT 3
Schedules of Changes in LACERS Net Pension Liability – Last Two Fiscal Years

	2014	2013	
Total pension liability			
Service cost	\$317,185,480	\$312,372,769	
Interest	1,149,966,081	1,112,561,414	
Change of benefit terms	0	0	
Differences between expected and actual experience	-164,247,475	-235,829,202	
Changes of assumptions	785,439,114	0	
Benefit payments, including refunds of employee contributions	<u>-721,153,263</u>	<u>-701,400,393</u>	
Net change in total pension liability	\$1,367,189,937	\$487,704,588	
Total pension liability – beginning	14,881,663,162	14,393,958,574	
Total pension liability – ending (a)	<u>\$16,248,853,099</u>	<u>\$14,881,663,162</u>	
Plan fiduciary net position			
Contributions – employer	\$357,649,232	\$346,180,852	
Contributions – employee	203,975,276	197,722,165	
Net investment income	1,810,782,123	1,268,938,657	
Benefit payments, including refunds of employee contributions	-721,153,263	-701,400,393	
Administrative expense	-12,372,426	-13,280,859	
Other (Transfer to Larger Annuity Reserve)	<u>-2,287,567</u>	<u>-2,513,462</u>	
Net change in plan fiduciary net position	\$1,636,593,375	\$1,095,646,960	
Plan fiduciary net position – beginning	10,154,486,098	9,058,839,138	
Plan fiduciary net position – ending (b)	\$11,791,079,473	\$10,154,486,098	
System's net pension liability – ending (a) – (b)	<u>\$4,457,773,626</u>	<u>\$4,727,177,064</u>	
Plan fiduciary net position as a percentage of the total pension liability	72.57%	68.23%	
Covered employee payroll	\$1,802,931,195	\$1,736,112,598	
Plan net pension liability as percentage of covered employee payroll	247.25%	272.29%	

# **Notes to Schedule:**

Benefit changes:

All employees hired on or after July 1, 2013 enter Tier 2 (with the exceptions noted in Section 4.1052 of the LACERS Administrative Code).

EXHIBIT 4
Schedule of LACERS' Contributions – Last Ten Fiscal Years

Year Ended June 30	Actuarially Determined Contributions	Contributions in Relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered-Employee Payroll	Contributions as a Percentage of Covered Employee Payroll
2005	\$183,241,489	\$158,131,638	\$25,109,851	\$1,477,753,943	10.70%
2006	227,740,600	227,740,600	0	1,602,619,746	14.21%
2007	277,516,400	277,516,400	0	1,646,055,902	16.86%
2008	288,119,041	288,119,041	0	1,741,849,669	16.54%
2009	274,554,786	274,554,786	0	1,832,795,577	14.98%
2010	258,642,795	258,642,795	0	1,827,864,283	14.15%
2011	303,560,953	303,560,953	0	1,678,059,440	18.09%
2012	308,539,905	308,539,905	0	1,715,197,133	17.99%
2013	346,180,852	346,180,852	0	1,736,112,598	19.94%
2014	357,649,232	357,649,232	0	1,802,931,195	19.84%

## Notes to Exhibit 4

Methods and assumptions used to establish "actuarially determined contribution" rates:

Valuation date Actuarially determined contribution rates are calculated as of June 30, two years prior to the end of

the fiscal year in which contributions are reported

Actuarial cost method Entry Age Actuarial Cost Method, level percent of salary

Amortization method Level percent of payroll – assuming a 4.00% increase in total covered payroll.

**Amortization period** Multiple layers, closed amortization periods. Actuarial gains/losses are amortized over 15 years.

Assumption or method changes are amortized over 20 years. Plan changes, including the 2009 ERIP, are amortized over 15 years. Future ERIPs will be amortized over 5 years. Actuarial surplus is amortized over 30 years. The existing layers on June 30, 2012, except those arising from the 2009

ERIP and the two GASB 25/27 layers, were combined and amortized over 30 years.

**Asset valuation method**Market value of assets less unrecognized returns in each of the last seven years. Unrecognized return

is equal to the difference between the actual market return and the expected return on the market value, and is recognized over a seven-year period. The actuarial value of assets cannot be less than

60% or greater than 140% of the market value of assets.

Actuarial assumptions:	<u>June 30, 2014</u>	June 30, 2013
Investment rate of return	7.50%	7.75%
Inflation rate	3.25%	3.50%
Real across-the-board salary increase	0.75%	0.75%
Projected salary increases*	Ranges from 10.50% to 4.40%, based on years of service.	Ranges from 11.25% to 6.50% for members with less than 5 years of service. Ranges from 6.50% to 4.65% for members with 5 or more years of service.
Cost of living adjustments	3.00% for Tier 1; 2.00% for Tier 2 (actual increases are contingent upon CPI increases with a 3.00% maximum for Tier 1 and a 2.00% maximum for Tier 2)	3.00% for Tier 1; 2.00% for Tier 2 (actual increases are contingent upon CPI increases with a 3.00% maximum for Tier 1 and a 2.00% maximum for Tier 2)
Mortality	Healthy: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set back one year for males and with no setback for females.	Healthy: RP-2000 Combined Healthy Mortality Table, set back two years for males and set back one year for females.
Other assumptions	Same as those used in the June 30, 2014 funding actuarial valuation	Same as those used in the June 30, 2013 funding actuarial valuation

<sup>\*</sup> Includes inflation at 3.25% as of June 30, 2014 and 3.50% as of June 30, 2013 plus across the board salary increases of 0.75% plus merit and promotional increases.

EXHIBIT 5
Projection of Pension Plan's Fiduciary Net Position for Use in Calculation of Discount Rate as of June 30, 2014
(\$ in millions)

Year Beginning	Projected Beginning Plan Fiduciary Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings	Projected Ending Plan Fiduciary Net Position
July 1,	(a)	(b)	(c)	(d)	(e)	(f) = (a) + (b) - (c) - (d) + (e)
2013	\$10,154	\$562	\$721	\$12	\$1,808 *	\$11,791
2014	11,791	615	775	14	901	12,517
2015	12,517	605	799	15	954	13,262
2016	13,262	596	847	16	1,007	14,002
2017	14,002	586	899	17	1,060	14,731
2018	14,731	576	956	18	1,111	15,444
2019	15,444	560	1,018	19	1,161	16,129
2020	16,129	546	1,085	20	1,209	16,780
2021	16,780	548	1,155	20	1,256	17,408
2022	17,408	549	1,225	21	1,300	18,011
2053	15,345	2	1,874	19	1,080	14,535
2054	14,535	2	1,803	18	1,022	13,738
2055	13,738	1	1,730	17	965	12,957
2056	12,957	1	1,653	16	909	12,199
2057	12,199	1	1,574	15	855	11,465
2098	19,238	0	1	23	1,442	20,655
2099	20,655	0	1	25	1,548	22,177
2100	22,177	0	1	27	1,662	23,812
2101	23,812	0	1	29	1,785	25,567
2102	25,567	0	1	31	1,916	27,451
2115	64,462	0	0 **	79	4,832	69,216
2116	69,216	1			,	•
2116	Discounted Value: 43 ***					

<sup>\*</sup> Net of transfer to Larger Annuity Reserve.

<sup>\*\*</sup> Less than \$1 M, when rounded.

<sup>\*\*\* \$69,216</sup> million when discounted with interest at the rate of 7.50% per annum has a value of \$43 M as of June 30, 2014.

#### **EXHIBIT 5**

#### Projection of Pension Plan's Fiduciary Net Position for Use in Calculation of Discount Rate as of June 30, 2014

#### (\$ in millions) - continued

#### Notes:

- (1) Amounts may not total exactly due to rounding
- (2) Amounts shown in the year beginning July 1, 2013 row are actual amounts, based on the unaudited financial statements provided by LACERS.
- (3) Years 2023-2052, 2058-2097, and 2103-2114 have been omitted from this table.
- (4) <u>Column (a)</u>: Except for the "discounted value" shown for 2116, all of the projected beginning plan fiduciary net position amounts shown have not been adjusted for the time value of money.
- (5) Column (b): Projected total contributions include employee and employer normal cost rates applied to closed group projected payroll (based on covered active members as of June 30, 2014), plus employer contributions to the unfunded actuarial accrued liability. Contributions have <u>not</u> been adjusted for the phase-in of the cost impact of the new assumptions adopted from the 2011 experience study or the possible phase-in of the cost impact of the new assumptions adopted from the 2014 experience study. Contributions are assumed to occur at the beginning of the year.
- (6) Column (c): Projected benefit payments have been determined in accordance with paragraph 39 of GASB Statement No. 67, and are based on the closed group of active, inactive vested, retired members, and beneficiaries as of June 30, 2014. The projected benefit payments reflect the cost of living increase assumption of 3.00% per annum for Tier 1 and 2.00% per annum for Tier 2. Benefit payments are assumed to occur halfway through the year, on average. In accordance with paragraph 31.b.(1)(e) of GASB Statement No. 67, the long-term expected rate of return on Plan investments of 7.50% per annum was applied to all periods of projected benefit payments to determine the discount rate.
- (7) Column (d): Projected administrative expenses are calculated as approximately 0.12% of the projected beginning plan fiduciary net position amount. The 0.12% portion was based on the actual fiscal year 2013/2014 administrative expenses (unaudited) as a percentage of the actual beginning plan fiduciary net position as of July 1, 2013. Administrative expenses are assumed to occur halfway through the year, on average.
- (8) Column (e): Projected investment earnings are based on the assumed investment rate of return of 7.50% per annum.
- (9) As illustrated in this Exhibit, the Plan's fiduciary net position was projected to be available to make all projected future benefit payments for current Plan members. In other words, there is no projected "cross-over date" when projected benefits are not covered by projected assets. Therefore, the long-term expected rate of return on Plan investments of 7.50% per annum was applied to all periods of projected benefit payments to determine the total pension liability as of June 30, 2014 shown earlier in this report, pursuant to paragraph 44 of GASB Statement No. 67.

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100 Montgomery Street Suite 500 San Francisco, CA 94104-4308 T 415.263.8200 www.segalco.com

November 24, 2014

Mr. Tom Moutes General Manager Los Angeles City Employees' Retirement System 202 W. 1<sup>st</sup> Street, Suite 500 Los Angeles, CA 90012-4401

Re: Los Angeles City Employees' Retirement System
FY 2015-2016 Retirement and Health Plan Contributions
with Adjustments to Reflect Five-Year Phase-in of City Contribution Rates
for June 30, 2011 Triennial Experience Study

# Dear Tom:

On October 25, 2011, the Board elected to phase in the impact of new actuarial assumptions (adopted as recommended in the June 30, 2011 Triennial Experience Study) on the City's retirement and health plan contributions over a five-year period, beginning with the 2012-2013 Fiscal Year. The recommended pre-phase-in contribution rates for Fiscal Year 2015-2016 are contained in Segal's June 30, 2014 reports entitled *Actuarial Valuation and Review of Retirement Benefits* and *Actuarial Valuation and Review of Other Postemployment Benefits* (*OPEB*). This letter provides the "phased-in" contribution rates for Fiscal Year 2015-2016 (i.e., the fourth year of the phase-in) and an analysis of the financial reporting and future contribution rate impact of the five-year phase-in.<sup>1</sup>

## PHASE-IN CONTRIBUTION RATES FOR 2015-2016

Table A below shows the full impact of the new actuarial assumptions on the City's retirement and health plan contributions for Fiscal Year 2012-2013 as determined in the June 30, 2011 valuations, assuming payment at the beginning of the year, on July 15, 2012, or at the end of each pay period. This is the portion of the increase over the current contribution rates that will be phased-in over five years.

On October 14, 2014, as part of the Board's deliberations on the actuarial assumptions for use in the June 30, 2014 valuation, the Board also discussed the possibility of phasing in the cost impact of the new actuarial assumptions adopted from the recent June 30, 2014 Triennial Experience Study on the City's retirement and health plan contributions over three alternative phase-in periods. In a separate letter, dated November 25, 2014, we provide the phase-in contribution rates for Fiscal Year 2015-2016 resulting from the 2014 Experience Study. That is, all of the rates provided herein are <u>before</u> any adjustments that may be considered by the Board to phase in the City contribution rate impact of new actuarial assumptions adopted as recommended in the June 30, 2014 Triennial Experience Study.

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		Full Impact of the	e
	New	Actuarial Assum	otions
Plan:	Adopted from the 2	2011 Experience S	tudy (% of payroll):
	Beginning of Year	<u>July 15</u>	End of Pay Periods
Retirement	1.20%	1.21%	1.23%
Health	<u>0.18%</u>	0.18%	<u>0.19%</u>
Total	1.38%	1.39%	1.42%

The decreases in the contribution rates for the fourth year of the phase-in are simply 20% of the rates shown in Table A. The adjustments to the contribution rates as provided in the June 30, 2014 reports are shown below in Table B.

	Table B	}	
	Fourth-Year De	ferred Portion of	the Impact of the
		Actuarial Assum	
Plan:	Adopted from the 2	2011 Experience S	tudy (% of payroll):
	Beginning of Year	<u>July 15</u>	End of Pay Periods
Retirement	0.24%	0.24%	0.25%
Health	<u>0.04%</u>	0.04%	<u>0.04%</u>
Total	0.28%	0.28%	0.29%

The phased-in City contribution rates for 2015-2016 are provided in Table D. For your convenience, we have also provided in Table C the City contribution rates for 2015-2016 before the phase-in. The rates in Table D (after the phase-in) are developed by taking the rates in Table C (before the phase-in) minus the rates in Table B.

Table C
City Contribution Rates for 2015-2016,
Before Reflecting Five-Year Phase-In of the Impact of the
New Actuarial Assumptions

Plan:	Adopted from the 2011 Experience Study (% of payroll):				
	Beginning of Year	<u>July 15</u>	End of Pay Periods		
Tier 1					
Retirement	23.32%	23.39%	24.18%		
Health	<u>5.62%</u>	<u>5.64%</u>	<u>5.83%</u>		
Total	28.94%	29.03%	30.01%		
Tier 2					
Retirement	18.07%	18.12%	18.74%		
Health	<u>4.76%</u>	<u>4.78%</u>	<u>4.94%</u>		
Total	22.83%	22.90%	23.68%		
Combined					
Retirement	23.19%	23.26%	24.05%		
Health	<u>5.60%</u>	<u>5.62%</u>	<u>5.81%</u>		
Total	28.79%	28.88%	29.86%		

# Table D City Contribution Rates for 2015-2016, After Reflecting Five-Year Phase-In of the Impact of the

New Actuarial Assumptions
Adopted from the 2011 Experience Study (% of payroll):

Plan:	Adopted from the 2011 Experience Study (% of payroll):				
	Beginning of Year	<u>July 15</u>	End of Pay Periods		
<u>Tier 1</u>					
Retirement	23.08%	23.15%	23.93%		
Health	<u>5.58%</u>	<u>5.60%</u>	<u>5.79%</u>		
Total	28.66%	28.75%	29.72%		
Tier 2					
Retirement	17.83%	17.88%	18.49%		
Health	<u>4.72%</u>	<u>4.74%</u>	<u>4.90%</u>		
Total	22.55%	22.62%	23.39%		
Combined					
Retirement	22.95%	23.02%	23.80%		
Health	<u>5.56%</u>	<u>5.58%</u>	<u>5.77%</u>		
Total	28.51%	28.60%	29.57%		

# IMPACT OF FIVE-YEAR PHASE-IN ON FINANCIAL REPORTING FOR RETIREE HEALTH PLAN ONLY

The health plan contribution rates recommended in Segal Consulting's June 30, 2014 actuarial valuation report satisfy the parameters required for determining the Annual Required Contribution (ARC) under Governmental Accounting Standards Board (GASB) Statements No. 43 and 45 for the 2015-2016 Fiscal Year, including the requirement that the System's Unfunded Actuarial Accrued Liability be amortized over an Equivalent Single Amortization Period (ESAP) of no longer than 30 years<sup>2</sup>. Those requirements are met before any phase-in, and they reflect the full contribution rate impact of the new actuarial assumptions.

We have calculated that, for the health plan, the ESAP is still shorter than 30 years even after the phase-in. This means that contributing the phase-in rates for Fiscal Year 2015-2016 will not result in the City recording a liability for the health plan (Net OPEB Obligation or "NOO").

We are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

If you have any questions, please let us know.

Sincerely,

Paul Angelo, FSA, MAAA, FCA, EA Senior Vice President and Actuary

DNA/bqb

Andy Yeung, ASA, MAAA, FCA, EA Vice President and Associate Actuary

<sup>&</sup>lt;sup>2</sup> It should be noted that a similar requirement used to apply under the old GASB Statements No. 25 and 27 for the Retirement Plan. However, that requirement no longer applies under the new GASB Statements No. 67 and 68.



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November 25, 2014

Mr. Tom Moutes General Manager Los Angeles City Employees' Retirement System 202 West First Street, Suite 500 Los Angeles, CA 90012-4401

Re: Los Angeles City Employees' Retirement System
Adjustments to Reflect a Two-Year, a Three-Year, or a Modified Three-Year
Phase-In of Incremental City Contribution Rates Resulting from New Actuarial
Assumptions Adopted from the June 30, 2014 Experience Study

# Dear Tom:

On October 14, 2014, as part of the Board's deliberations on the actuarial assumptions for use in the June 30, 2014 valuations, the Board also discussed the possibility of phasing in the cost impact of the new actuarial assumptions, adopted as recommended in the June 30, 2014 triennial experience study, on the City's retirement and health plan contributions over either a two- or three-year period, beginning with the 2015-2016 fiscal year. Subsequent to the October 14 Board meeting, LACERS' staff asked Segal Consulting to include the incremental costs for a "modified three-year" phase-in scenario, whereby none (0%) of the cost impact of the new assumptions is phased-in during the first year, 50% is phased-in during the second year, and 100% is phased-in during the third year. In our letter dated October 23, 2014, we provided the illustrative rate impacts projected based on membership data used in the June 30, 2013 valuations. In this letter, we have updated those results based on membership data used in the June 30, 2014 valuations.

The recommended contribution rates for Fiscal Year 2015-2016 before they have been adjusted to reflect either the five-year phase-in approved by the Board for the rate impact of the June 30, 2011 experience study or the rate impact of the June 30, 2014 experience study are provided in Segal Consulting's June 30, 2014 valuation reports dated December 3, 2014. In our letter dated November 24, 2014, we provided the City's contribution rates after they have been adjusted to reflect the five-year phase-in of the June 30, 2011 experience study. Using those results, this letter provides the "phased-in" contribution rates for Fiscal Year 2015-2016 reflecting the June 30, 2014 experience study cost impact under a two-year, a three-year, or a modified three-year phase-in.

# **INCREMENTAL PHASE-IN CONTRIBUTION RATES FOR 2015-2016**

Table A below shows the <u>full impact</u> of the new actuarial assumptions adopted from the June 30, 2014 experience study on the City's retirement and health plan contributions for Fiscal Year 2015-2016, assuming payment at the beginning of the year, on July 15, 2015, or at the end of each pay period. This is the portion of the increase in the contribution rates developed in the June 30, 2014 valuations that would be phased-in over either two or three years.

Table A: Full Impact of the New Actuarial Assumptions
Adopted from the 2014 Experience Study

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Plan:	Rate (% of payroll):				
	Beginning		End of Pay		
Tier 1 and Tier 2 Combined	of Year	<u>July 15</u>	<u>Periods</u>		
Retirement	2.77%	2.78%	2.85%		
Health	<u>0.45%</u>	<u>0.45%</u>	<u>0.46%</u>		
Total	3.22%	3.23%	3.31%		

The incremental increases in the City contribution rates for the first year of the phase-in are simply one-half of the rates shown in Table A for a two-year phase-in, or one-third of the rates shown in Table A for a ("non-modified") three-year phase-in. (Note that there are no incremental increases for the first year of the phase-in under the modified three-year phase-in scenario.) These first-year phase-in rates are shown below in Tables B-1 (two-year phase-in) and B-2 (three-year phase-in) and would apply to contributions for Fiscal Year 2015-2016:

Table B-1 (Two-Year Phase-In): First-Year Phase-In of the Impact of the New Actuarial Assumptions Adopted from the 2014 Experience Study

Plan:	I	Rate (% of payrol	ll):
	Beginning		End of Pay
Tier 1 and Tier 2 Combined	of Year	<u>July 15</u>	<u>Periods</u>
Retirement	1.38%	1.39%	1.43%
Health	<u>0.23%</u>	<u>0.23%</u>	<u>0.23%</u>
Total	1.61%	1.62%	1.66%

Table B-2 (Three-Year Phase-In): First-Year Phase-In of the Impact of the New Actuarial Assumptions Adopted from the 2014 Experience Study

Plan:	Rate (% of payroll):				
	Beginning		End of Pay		
Tier 1 and Tier 2 Combined	of Year	<u>July 15</u>	<u>Periods</u>		
Retirement	0.92%	0.93%	0.95%		
Health	<u>0.15%</u>	<u>0.15%</u>	<u>0.15%</u>		
Total	1.07%	1.08%	1.10%		

Note that the actual rate impact for the remaining years of the phase-in would be slightly higher than simply adding another one-half (for the two-year phase-in), another one-third (for the three-year phase-in), or another 50% (for the modified three-year phase-in) of the full increases to the contribution rates for the preceding year. This is due to interest that would accrue on the portion of the total contribution rate increase that would not be made because of the phase-in.

The actual incremental increase in the City contribution rate due to the phase-in for the remaining years would be reflected in the new contribution rates determined at the time of each such future valuation. We have provided below in Tables C-1 (two-year phase-in), C-2 (three-year phase-in), and C-3 (modified three-year phase-in) an estimate of these incremental increases (combined for Tier 1 and Tier 2), with and without the phase-in, assuming payment by the employer on July 15<sup>th</sup>. These results illustrate the additional interest cost due to the phase-in.

Table C-1 (Two-Year Phase-In; Payment on July 15<sup>th</sup>): Combined Tier 1 and Tier 2 Contribution Increases Under Phase-In

Fiscal Year	Pensio	n Plan	Retiree H	ealth Plan	To	<u>tal</u>
	Without	With	Without	With	Without	With
	Phase-in	Phase-in	Phase-in	Phase-in	Phase-in	Phase-in
2015/16	2.78%	1.39%	0.45%	0.23%	3.23%	1.62%
2016/17	2.78%	2.91%	0.45%	0.47%	3.23%	3.38%

Table C-2 (Three-Year Phase-In; Payment on July 15<sup>th</sup>): Combined Tier 1 and Tier 2 Contribution Increases Under Phase-In

Fiscal Year	<b>Pensio</b>	n Plan	Retiree H	ealth Plan	<u>To</u>	tal
	Without	With	Without	With	Without	With
	Phase-in	Phase-in	Phase-in	Phase-in	Phase-in	Phase-in
2015/16	2.78%	0.93%	0.45%	0.15%	3.23%	1.08%
2016/17	2.78%	2.02%	0.45%	0.33%	3.23%	2.35%
2017/18	2.78%	3.03%	0.45%	0.49%	3.23%	3.52%

Table C-3 (Modified Three-Year Phase-In; Payment on July 15<sup>th</sup>): Combined Tier 1 and Tier 2 Contribution Increases Under Phase-In

Fiscal Year	<b>Pensio</b>	n Plan	Retiree H	ealth Plan	To	tal
	Without	With	Without	With	Without	With
	Phase-in	Phase-in	Phase-in	Phase-in	Phase-in	Phase-in
2015/16	2.78%	0.00%	0.45%	0.00%	3.23%	0.00%
2016/17	2.78%	1.63%	0.45%	0.27%	3.23%	1.90%
2017/18	2.78%	3.15%	0.45%	0.51%	3.23%	3.66%

# **AFTER PHASE-IN CONTRIBUTION RATES FOR 2015-2016**

In our letter dated November 24, 2014, we provided the City contribution rates for 2015-2016, after reflecting the five-year phase-in of the impact of the new actuarial assumptions adopted as recommended in the June 30, 2011 triennial experience study. For your convenience, those rates are reproduced in Table D below:

Table D: City Contribution Rates for 2015-2016,
After Reflecting Five-Year Phase-In of the Impact of the New Actuarial Assumptions
Adopted as Recommended in the June 30, 2011 Triennial Experience Study<sup>1</sup>:

Plan:	Rate (% of payroll):				
	Beginning of Year	<u>July 15</u>	End of Pay Periods		
Tier 1					
Retirement	23.08%	23.15%	23.93%		
Health	<u>5.58%</u>	<u>5.60%</u>	<u>5.79%</u>		
Total	28.66%	28.75%	29.72%		
Tier 2					
Retirement	17.83%	17.88%	18.49%		
Health	<u>4.72%</u>	<u>4.74%</u>	<u>4.90%</u>		
Total	22.55%	22.62%	23.39%		
Combined					
Retirement	22.95%	23.02%	23.80%		
Health	<u>5.56%</u>	<u>5.58%</u>	<u>5.77%</u>		
Total	28.51%	28.60%	29.57%		

In table E-1 below, we have provided the City contribution rates for 2015-2016 after reflecting (a) the five-year phase-in of the impact of the new actuarial assumptions adopted as recommended in the June 30, 2011 triennial experience study, and (b) the possible two-year phase-in of the impact of the new actuarial assumptions adopted as recommended in the June 30, 2014 triennial experience study. These after phase-in rates are developed by taking the rates determined in Table D minus the rates in Table A (i.e., the full impact of the new 2014 actuarial assumptions) plus the rates in Table B-1 (i.e., the first-year incremental phase-in rates).

Similar results are provided below in tables E-2 (three-year phase-in) and E-3 (modified three-year phase-in).

Before reflecting possible phase-in of the cost impact of the new actuarial assumptions adopted as recommended in the June 30, 2014 triennial experience study.

Table E-1 (Two-Year Phase-In): City Contribution Rates for 2015-2016 After Reflecting Phase-In of the Impact of the New Actuarial Assumptions Adopted from the 2011 and 2014 Experience Studies

	aoptea from the 2011 and 20	of t Dapertence k	otuares		
Plan:	R	Rate (% of payroll):			
	Beginning of Year	July 15	End of Pay Periods		
Tier 1		-	·		
Retirement	21.69%	21.76%	22.51%		
Health	<u>5.36%</u>	<u>5.38%</u>	<u>5.56%</u>		
Total	27.05%	27.14%	28.07%		
Tier 2					
Retirement	16.44%	16.49%	17.07%		
Health	4.50%	<u>4.52%</u>	<u>4.67%</u>		
Total	20.94%	21.01%	21.74%		
Combined					
Retirement	21.56%	21.63%	22.38%		
Health	<u>5.34%</u>	<u>5.36%</u>	<u>5.54%</u>		
Total	$2\overline{6.90\%}$	26.99%	27.92%		

Table E-2 (Three-Year Phase-In): City Contribution Rates for 2015-2016 After Reflecting Phase-In of the Impact of the New Actuarial Assumptions Adopted from the 2011 and 2014 Experience Studies

Adopted from the 2011 and 2014 Experience Studies					
	Beginning of Year	<u>July 15</u>	<b>End of Pay Periods</b>		
<u>Tier 1</u>					
Retirement	21.23%	21.30%	22.03%		
Health	<u>5.28%</u>	<u>5.30%</u>	<u>5.48%</u>		
Total	26.51%	26.60%	27.51%		
Tier 2					
Retirement	15.98%	16.03%	16.59%		
Health	<u>4.42%</u>	4.44%	<u>4.59%</u>		
Total	20.40%	20.47%	21.18%		
Combined					
Retirement	21.10%	21.17%	21.90%		
Health	<u>5.26%</u>	<u>5.28%</u>	5.46%		
Total	26.36%	26.45%	27.36%		

Table E-3 (Modified Three-Year Phase-In): City Contribution Rates for 2015-2016 After Reflecting Phase-In of the Impact of the New Actuarial Assumptions

Adopted from the 2011 and 2014 Experience Studies						
	Beginning of Year	<u>July 15</u>	End of Pay Periods			
<u>Tier 1</u>						
Retirement	20.31%	20.37%	21.08%			
Health	<u>5.13%</u>	<u>5.15%</u>	<u>5.33%</u>			
Total	25.44%	25.52%	26.41%			
Tier 2						
Retirement	15.06%	15.10%	15.64%			
Health	<u>4.27%</u>	4.29%	<u>4.44%</u>			
Total	19.33%	19.39%	20.08%			
Combined						
Retirement	20.18%	20.24%	20.95%			
Health	<u>5.11%</u>	<u>5.13%</u>	<u>5.31%</u>			
Total	25.29%	25.37%	26.26%			

# IMPACT OF TWO-YEAR OR THREE-YEAR PHASE-IN ON FINANCIAL REPORTING FOR RETIREE HEALTH PLAN ONLY

The health plan contribution rates recommended in Segal's June 30, 2014 actuarial valuation report satisfy the parameters required for determining the Annual Required Contribution (ARC) under Governmental Accounting Standards Board (GASB) Statements No. 43 and 45 for the 2015-2016 fiscal year, including the requirement that the Equivalent Single Amortization Period (ESAP) for the System's Unfunded Actuarial Accrued Liability be amortized over an equivalent single period of no longer than 30 years<sup>2</sup>. Those requirements are met before any phase-in, and reflect the full contribution rate impact of the new actuarial assumptions.

However, under all three phase-in scenarios described herein, applying the assumption changes adopted from the 2014 experience study in the June 30, 2014 valuation results in an ESAP that is longer than 30 years. Therefore, contributing the phase-in rates for 2015-2016 <u>will</u> result in the City recording a liability (Net OPEB Obligation or "NOO").

We are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

<sup>&</sup>lt;sup>2</sup> It should be noted that a similar requirement used to apply under the old GASB Statements No. 25 and 27 for the Pension Plan. However, that requirement no longer applies under the new GASB Statements No. 67 and 68.

Mr. Tom Moutes November 25, 2014 Page 7

If you have any questions, please let us know.

Sincerely,

Paul Angelo, FSA, MAAA, FCA, EA Senior Vice President and Actuary

DNA/bqb

Andy Yeung, ASA, MAAA, FCA, EA Vice President and Associate Actuary