

# Los Angeles City Employees' Retirement System

Actuarial Valuation and Review of Retirement and Health Benefits as of June 30, 2013

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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November 7, 2013

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, 2013 Actuarial Valuations

Dear Board Members:

Enclosed please find the June 30, 2013 actuarial valuations for the retirement, health, and family death benefit 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<sup>1</sup>.
- > 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 Vice President and Associate Actuary

JRC/hy

5276973v3/05806.002

 $<sup>^{1}</sup>$  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

	June 30, 2013	<u>June 30, 2012</u>	Percent <u>Change</u>
Total Membership			
A. Active Members	24,441	24,917	-1.9%
B. Pensioners and Beneficiaries	17,362	17,223	0.8%
Valuation Salary			
A. Total Annual Payroll	\$1,846,970,474	\$1,819,269,630	1.5%
B. Average Monthly Salary	6,297	6,084	3.5%
Benefits to Current Retirees and Beneficiaries <sup>(1)</sup>			
A. Total Annual Benefits	\$699,064,942	\$676,874,760	3.3%
B. Average Monthly Benefit Amount	3,355	3,275	2.4%
Total System Assets <sup>(2)</sup>			
A. Actuarial Value	\$12,004,110,338	\$11,620,457,827	3.3%
B. Market Value	11,922,538,917	10,595,700,986	12.5%
Unfunded Actuarial Accrued Liability (UAAL)			
A. Retirement Benefits	\$4,657,702,276	\$4,458,999,264	4.5%
B. Health Subsidy Benefits	677,750,710	650,026,667	4.3%
	A. Active Members B. Pensioners and Beneficiaries  Valuation Salary A. Total Annual Payroll B. Average Monthly Salary  Benefits to Current Retirees and Beneficiaries <sup>(1)</sup> A. Total Annual Benefits B. Average Monthly Benefit Amount  Total System Assets <sup>(2)</sup> A. Actuarial Value B. Market Value  Unfunded Actuarial Accrued Liability (UAAL) A. Retirement Benefits	Total Membership A. Active Members B. Pensioners and Beneficiaries  Valuation Salary A. Total Annual Payroll B. Average Monthly Salary  A. Total Annual Benefits A. Total Annual Benefits  Senefits to Current Retirees and Beneficiaries  A. Total Annual Benefits A. Total Annual Benefits Senefits Amount  Total System Assets  A. Actuarial Value Siz,004,110,338 B. Market Value  Valuation Salary Siz,004,110,338 Siz,004,110,308 Siz,004,110,308 Siz,00	Total Membership           A. Active Members         24,441         24,917           B. Pensioners and Beneficiaries         17,362         17,223           Valuation Salary           A. Total Annual Payroll         \$1,846,970,474         \$1,819,269,630           B. Average Monthly Salary         6,297         6,084           Benefits to Current Retirees and Beneficiaries <sup>(1)</sup> A. Total Annual Benefits         \$699,064,942         \$676,874,760           B. Average Monthly Benefit Amount         3,355         3,275           Total System Assets <sup>(2)</sup> A. Actuarial Value         \$12,004,110,338         \$11,620,457,827           B. Market Value         11,922,538,917         10,595,700,986           Unfunded Actuarial Accrued Liability (UAAL)           A. Retirement Benefits         \$4,657,702,276         \$4,458,999,264

<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.	<b>Budget Items</b>	FY 20	14-2015**	FY 20	13-2014**	Differ	rence
		Beginning		Beginning		Beginning	
		of Year*	July 15	of Year	July 15	of Year	July 1
	After Reflecting Additional Employee Contribu	tions for Unfrozen H	ealth Subsidie	es (Composite I	Rates)		
	A. Retirement Benefits (Tier 1)						
	1. Normal Cost as a Percent of Pay	6.86%	6.89%	6.88%	6.90%	(0.02)%	$(0.01)^{9}$
	2. Amortization of UAAL	<u>14.57%</u>	<u>14.61%</u>	<u>13.67%</u>	<u>13.72%</u>	<u>0.90%</u>	0.89%
	3. Total Retirement Contribution	21.43%	21.50%	20.55%	20.62%	0.88%	0.88%
	B. Health Subsidy Contribution (Tier 1)						
	1. Normal Cost as a Percent of Pay	3.48%	3.49%	3.55%	3.56%	(0.07)%	(0.07)%
	2. Amortization of UAAL	2.11%	2.12%	1.98%	1.99%	0.13%	0.13%
	3. Total Health Subsidy Contribution	5.59%	5.61%	5.53%	5.55%	0.06%	0.06%
	C. Total Contribution (A + B)	27.02%	27.11%	26.08%	26.17%	0.94%	0.94%
VII.	Funded Ratio	<u>June 30,</u>	2013	<u>June 30,</u>	2012	Differe	ence
,,	(Based on Valuation Value of Assets)						
	A. Retirement Benefits	68.7	%	69.0	%	(0.	3)%
	B. Health Subsidy Benefits	71.9	%	71.6	%	0	3%
	C. Total	69.1	%	69.4	%	(0.	3)%
	(Based on Market Value of Assets)						
	D. Retirement Benefits	68.2	%	62.9	%	5	3%
	E. Health Subsidy Benefits	71.4	%	65.3	%	6.	1%
	F. Total	68.7	%	63.3	%	5.4	4%

<sup>\*</sup> Alternative contribution payment date for FY 2014-2015:

Retirement Health Total

End of Pay Periods (after reflecting additional employee contributions) 22.24% 5.80% 28.04%



<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 2014-2015 contribution rates after the phase-in adjustments, refer to our letter dated November 7, 2013.

Exhibit B

Los Angeles City Employees' Retirement System

Computed Contribution Rates\* – Historical Comparison

Valuation <u>Date</u>	<u>Retirement</u>	<u>Health</u>	<u>Total</u>	Valuation Payroll (thousands)
06/30/1994	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**				
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**				
After Additional Employee Contributions	21.34%	5.74%	27.08%	1,819,270
06/30/2013**				
After Additional Employee Contributions	22.24%	5.80%	28.04%	1,846,970

<sup>\*</sup> Contributions are assumed to be made at the end of the pay period.



<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 2014-2015 contribution rates after the phase-in adjustments, refer to our letter dated November 7, 2013.

## Exhibit C

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

(\$ In Thousands)

						on of Accrued Liabi ered by Reported As	
	Aggregate A	Actuarial Accrued Li (2)	(3)		(1)	(2)	(3)
Valuation <u>Date</u>	Member Contributions	Retirees, Beneficiaries, & Inactives	Active Members	Valuation Value of <u>Assets</u>	Member Contributions	Retirees, Beneficiaries, & Inactives	Active <u>Members</u>
06/30/1996	\$637,737	\$2,357,798	\$1,480,489	\$4,468,433	100.0%	100.0%	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

<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/ <u>Beneficiaries</u>	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

<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, 2013



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November 7, 2013

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 as of June 30, 2013. It summarizes the actuarial data used in the valuation, establishes the funding requirements for fiscal 2014/2015 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 actuarial calculations were completed under the supervision of Andy Yeung, ASA, MAAA, FCA, Enrolled Actuary.

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; 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.

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, FCA Vice President and Associate Actuary

JRC/kek

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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, 2013. 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, 2013, provided by LACERS;
- > The assets of the Plan as of June 30, 2013, 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:

Section 4.1002.1, which establishes a new Tier 2 for employees who become members of the Retirement System on or after July 1, 2013 (with exceptions), was added to the LACERS Administrative Code effective November 12, 2012 based on the provisions of Ordinance 182296. In our special study report dated April 4, 2013, we estimated the costs of the new tier based on the demographic profiles (e.g., entry age, composition of male versus female, etc.) of active members hired in the four years prior to the most recent valuation as of June 30, 2012, since actual data was not available at that time. The Tier 2 contribution rates developed in that report were effective for fiscal 2013/2014.

As of the June 30, 2013 valuation date, there is still no census data available for Tier 2 members, since the provisions of the new tier are generally applicable to members hired on or after July 1, 2013 (i.e., after the current valuation date). However, we have included the Tier 2 employer and employee contribution rates effective for fiscal 2014/2015 in this report, based on the normal cost rates developed in our prior April 4, 2013 study and on the Unfunded Actuarial Accrued Liability (UAAL) contribution rates developed in this valuation report.

The plan provisions of the new Tier 2 are provided in Section 4, Exhibit VII.





Ref: Pgs. 23 and 31

Ref: Pg. 14

Ref: Pg. 5

- > The ratio of the valuation value of assets to actuarial accrued liabilities decreased from 69.02% to 68.70%. On a market value of assets basis, the funded ratio increased from 62.94% to 68.23%. The unfunded actuarial accrued liability increased from \$4.459 billion to \$4.658 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 21.34% of payroll to 22.24% of payroll. The annual dollar contributions calculated in this valuation increased from about \$388.1 million to \$410.9 million. The increase was due to: (i) the increase in the amortization amounts due to the assumed 4.25% total payroll growth, (ii) the loss from lower than expected contributions resulting from the one-year delay in implementing the higher combined (i.e., employer plus employee) contribution rate calculated in the prior valuation, and (iii) the lower than expected return on the valuation value of assets (after smoothing), offset somewhat by (iv) 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 2014-2015 (the third year of the phase-in) are contained in this report. In a separate letter, we provide the "phased-in" contribution rates for Fiscal Year 2014-2015.

As indicated in Section 2, Subsection B of this report, the total unrecognized investment loss as of June 30, 2013 is \$81,571,421¹ for the assets for Retirement, Health, Family Death, and Larger Annuity Benefits. This investment loss 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 7.75% per year (net of expenses) on a market value basis will result in net investment losses on the actuarial value of assets after June 30, 2013. Item 9 in Chart 7 shows how, under the asset smoothing method, the \$81.6 million in unrecognized losses will be recognized in the next six years.

The deferred losses of \$81.6 million represent 0.68% of the market value of assets as of June 30, 2013. Unless offset by future investment gains or other favorable experience, the recognition of the \$81.6 million market losses 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 losses were recognized immediately in the valuation value of assets, the funded percentage would decrease from 68.70% to 68.23%.

<sup>&</sup>lt;sup>1</sup> For comparison purposes, the total unrecognized investment loss as of June 20, 2012 was \$1,024,756,841.



- If the retirement plan component of the deferred losses were recognized immediately in the valuation value of assets, the aggregate employer rate (payable at the end of each pay period) would increase from 22.24% to 22.57% of payroll.
- > Item 9 of Chart 7 shows that under the asset smoothing method, the \$81.6 million in net deferred losses will be recognized in the next six years, but in a very non-level (uneven) pattern. In particular, there will be losses recognized in the next two years, followed by two years of gains, then one year of losses, and finally one year of gains, so as to ultimately recognize all of the current total net deferred losses of \$81.6 million. This means that, absent any new gains or losses in the future, there will be two more years of increases in the employer contribution rate, followed by two years of decreases, then one year of increases, and finally one year of decreases, before the \$81.6 million in net deferred losses are fully recognized.

In keeping with model actuarial practice for this situation, effective July 1, 2013, the asset smoothing method could be modified by combining the net deferred losses of \$81.6 million from the current valuation into a single six-year smoothing "layer" and thereby recognizing those net deferred losses over the next six years in six level amounts of approximately \$13.6 million in each year. This would reduce the volatility associated with the current pattern of deferred gain/loss recognition and thereby result in both more stable funded ratios (on an actuarial value basis) and more level employer contribution rates.

Please note that this change would have no impact on the current June 30, 2013 valuation results as the total amount of unrecognized losses as of June 30, 2013 would remain unchanged. Also, note that we recommend using a six-year smoothing period for the combined deferred losses as that will complete the recognition of those net losses over the same time period as under the current separate smoothing layers. We will provide more discussion of this policy option during our presentation of June 30, 2013 valuation.

- > The actuarial valuation report as of June 30, 2013 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, 2014, or
  - (3) Throughout the year (i.e., the City will pay contributions at the end of every pay period).



Ref: Pg. 24

Ref: Pg. 33

> Consistent with 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 under GASB Statements 25 and 27. 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.

A Net Pension Obligation (NPO) was created in the June 30, 2004 and June 30, 2005 valuations due to: (1) the phase-in of the higher contribution rate required from the 2002 experience study and (2) the GASB requirement that the UAAL of the Plan be amortized over an equivalent period of not greater than 40 years. Since (1) is already included in the development of the Plan's actual UAAL, the ARC calculation requires only an additional contribution to amortize (2) over a period of 15 years. In the June 30, 2013 valuation, there are 6 years of payments left in the amortization of (2) from the June 30, 2004 valuation and 7 years of payments left in the amortization of (2) from the June 30, 2005 valuation.

Due to the one-year lag in implementing the contribution rates, the amortization of the NPO created in the June 30, 2004 valuation began with the 2005/2006 fiscal year. The amortization of the NPO created in the June 30, 2005 valuation began with the 2006/2007 fiscal year. Additional details are provided in Section 4, Exhibit V.

> ERIP Ordinance No. 180926 stipulates that the member contribution rate for all Tier 1 employees shall increase to 7% on July 1, 2011 for a period of 15 years, or until the ERIP Cost Obligation is fully paid, whichever comes first.

In the June 30, 2013 valuation, about 95% of active Tier 1 members are making 4% additional contributions based on the data available for this valuation, in order to receive an unfrozen medical subsidy.<sup>2</sup>

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

Note that there is a recent court ruling dated September 13, 2013 that would result in unfreezing the medical subsidy for members covered under MOU #29 (Deputy City Attorneys) and MOU #31 (Confidential Attorneys). As the court ruling does not prohibit the collection of the 4% additional member contributions, we have continued to assume that the 4% member contribution rate would be collected from those members previously indicated in the data as required to make such contributions.



> The Governmental Accounting Standards Board (GASB) recently 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. It is important to note that the new GASB rules only redefine pension expense for financial reporting purposes, and do not apply to contribution amounts for actual pension funding purposes. Employers and plans can still develop and adopt funding policies under current practices. Because these new Statements are not effective until the fiscal year ending June 30, 2014 for Plan reporting and the fiscal year ending June 30, 2015 for employer reporting, the financial reporting information in this report continues to be in accordance with Statements 25 and 27.



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

	2013	2012
Contributions calculated as of June 30: <sup>(1)</sup> Recommended as a percentage of pay (there is a 12-month delay until the rate is effective)		
<u>Tier 1</u>		
At the beginning of the year	21.43%	20.55%
On July 15	21.50%	20.62%
At the end of each pay period	22.24%	21.34%
<u>Tier 2</u>		
At the beginning of the year	15.73%	14.83%
On July 15	15.77%	14.88%
At the end of each pay period	16.33%	15.39%
Funding elements for plan year ended June 30:		
Normal cost	\$317,185,480	\$312,372,769
Market value of assets (MVA) <sup>(2)</sup>	11,922,538,917	10,595,700,986
Actuarial value of assets (AVA) <sup>(2)</sup>	12,004,110,338	11,620,457,827
Valuation value of retirement assets (VVA)	10,223,960,886	9,934,959,310
Market value of retirement assets (MVA)	10,154,486,098	9,058,839,138
Actuarial accrued liability (AAL)	14,881,663,162	14,393,958,574
Unfunded/(overfunded) actuarial accrued liability (UAAL) on VVA basis	4,657,702,276	4,458,999,264
Funded ratio on VVA basis (VVA/AAL)	68.70%	69.02%
Funded ratio on MVA basis for retirement (MVA/AAL)	68.23%	62.94%
GASB 25/27 for fiscal year ended June 30:		
Annual required contributions	\$346,180,852	\$308,539,905
Actual contributions	346,180,852	308,539,905
Percentage contributed	100.00%	100.00%

Both the June 30, 2013 and the June 30, 2012 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>(2)</sup> Includes assets for Retirement, Health, Family Death, and Larger Annuity Benefits.

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

Summary of Key Valuation Results (continued)					
	2013	2012			
Demographic data for plan year ended June 30:					
Number of retired members and beneficiaries	17,362	17,223			
Number of inactive members	5,799	5,808			
Number of active members	24,441	24,917			
Projected total payroll <sup>(3)</sup>	\$1,846,970,474	\$1,819,269,630			
Projected average payroll <sup>(3)</sup>	\$75,569	\$73,013			

<sup>(3)</sup> Reflects annualized salaries for part-time members.



#### **Actuarial Certification**

November 7, 2013

This is to certify that Segal Consulting has conducted an actuarial valuation of the Los Angeles City Employees' Retirement System retirement program as of June 30, 2013, 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, 2012. 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.

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 25 and 27.

The actuarial computations made are for funding plan benefits and for satisfying the financial accounting requirements under GASB Statements No. 25 and 27. Accordingly, additional determinations will be needed for other purposes, such as judging benefit security at termination.

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

- 1) Schedule of funding progress
- 2) Schedule of employer contributions
- 3) Supplementary Information Required by 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: 2004 – 2013

Year Ended June 30	Active Members	Inactive Members*	Retired Members and Beneficiaries	Ratio of Non-Actives to Actives
2004	27,092	2,232	14,137	0.60
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

<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 24,441 active members with an average age of 48.3, average years of service of 14.5 years and average payroll of \$75,569.

The 24,917 active members in the prior valuation had an average age of 47.8, average service of 13.9 years and average payroll of \$73,013.

#### **Inactive Members**

In this year's valuation, there were 5,799 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, 2013

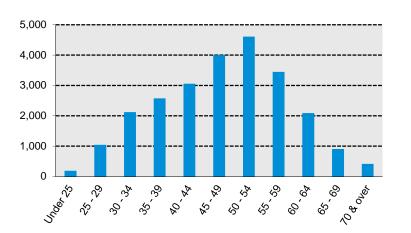
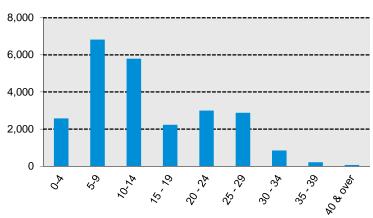


CHART 3

Distribution of Active Members by Years of Service as of June 30, 2013





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

As of June 30, 2013, 13,669 retired members and 3,693 beneficiaries were receiving total monthly benefits of \$58,255,412. For comparison, in the previous valuation, there were 13,531 retired members and 3,692 beneficiaries receiving monthly benefits of \$56,403,202.

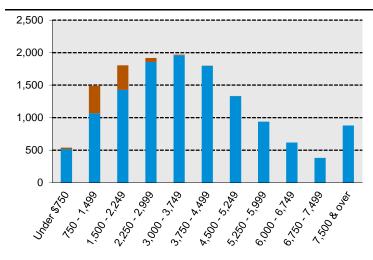
Please note that the monthly benefits provided have been adjusted for the COLA granted effective for the month of July.

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



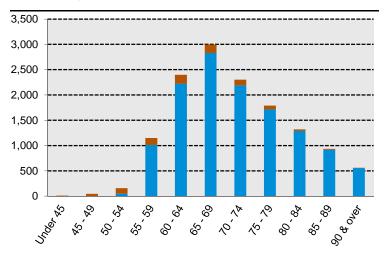
CHART 4

Distribution of Retired Members by Type and by Monthly Amount as of June 30, 2013



## CHART 5

Distribution of Retired Members by Type and by Age as of June 30, 2013



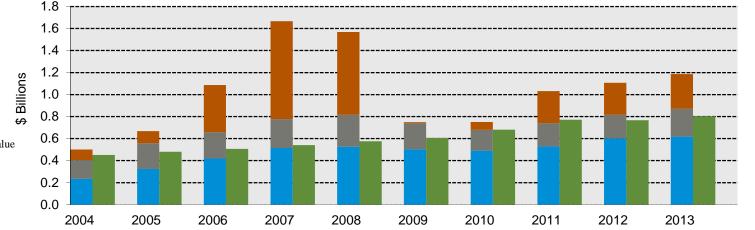
#### **B. FINANCIAL INFORMATION**

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

Comparison of Increases and Decreases in the Actuarial Value of Assets for Years Ended June 30, 2004 – 2013



■Adjustment toward market value

■Benefits paid

■Net interest and dividends

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, 2013

1.	Market value of assets				\$11,922,538,917
		Original	Percent Not	Amount Not	
2.	Calculation of unrecognized return*	Amount	Recognized	Recognized	
	(a) Year ended June 30, 2013	\$683,838,549	85.71%	\$586,147,328	
	(b) Year ended June 30, 2012	-770,325,267	71.43%	-550,232,334	
	(c) Year ended June 30, 2011	1,208,621,516	57.14%	690,640,866	
	(d) Year ended June 30, 2010	392,956,483	42.86%	168,409,921	
	(e) Year ended June 30, 2009	-2,964,832,484	26.67%**	-790,621,996	
	(f) Year ended June 30, 2008	-1,549,293,380	12.00%**	<u>-185,915,206</u>	
	(g) Total unrecognized return				-\$81,571,421
3.	Preliminary actuarial value: (1) - (2g)				\$12,004,110,338
4.	Adjustment to be within 40% corridor				0
5.	Final actuarial value of assets: $(3) + (4)$				\$12,004,110,338
6.	Actuarial value as a percentage of market value: $(5) \div (1)$				100.68%
7.	Market value of retirement assets				10,154,486,098
8.	Valuation value of retirement assets $(5) \div (1) \times (7)$				10,223,960,886
9.	Deferred return recognized in each of the next 6 years:				
	(a) Amount recognized on 6/30/2014				-\$364,784,593
	(b) Amount recognized on 6/30/2015				-178,869,387
	(c) Amount recognized on 6/30/2016				216,441,611
	(d) Amount recognized on 6/30/2017				160,304,971
	(e) Amount recognized on 6/30/2018				-12,355,246
	(f) Amount recognized on 6/30/2019				<u>97,691,221</u>
	(g) Subtotal (may not total exactly due to rounding)				-\$81,571,421

<sup>\*</sup> Total return minus expected return on a market value basis.

<sup>\*\*</sup> These percentages have been calculated by taking the unrecognized returns developed using a 5-year smoothing period through June 30, 2009 and recognizing those amounts over an extended period of an additional 2 years (for a total of 7 years from the original date of the investment gains or losses) starting with the June 30, 2010 valuation.

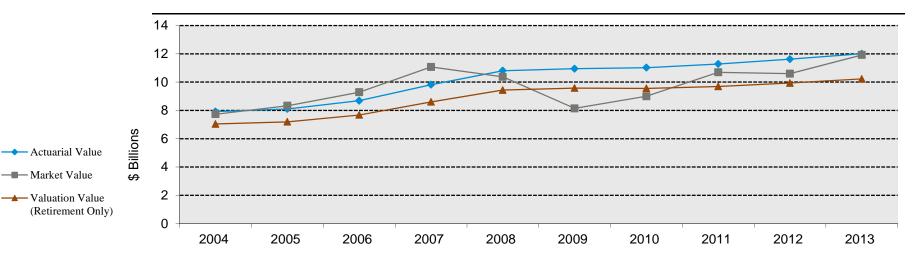


The actuarial value, market value and valuation value of assets are representations of LACERS' financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the market value of assets. The portion of the total actuarial value of assets allocated 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

Valuation Value (Retirement Only), Actuarial Value, and Market Value of Assets as of June 30, 2004 – 2013





#### 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 loss of \$116,022,989 was due to an investment loss of \$327,043,145 (after smoothing), offset by a gain of \$211,020,156 from all other sources. The net experience variation from all other sources was 1.42% 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, 2013

1.	Net loss from investments*	-\$327,043,145
2.	Net gain from other experience**	233,218,343
3.	Net loss from one year delay in implementing the higher contribution rate calculated in the June 30, 2012 valuation until fiscal year 2013/2014	<u>-22,198,187</u>
4.	Net experience loss: $(1) + (2) + (3)$	-\$116,022,989

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



<sup>\*\*</sup> Details in Chart 13. The net gain is attributed to actual liability experience from July 1, 2012 through June 30, 2013 compared to the projected experience predicted by the actuarial assumptions as of June 30, 2012.

#### **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, 2012 valuation). The actual rate of return on the valuation value of assets basis for the 2013 plan year was 4.48%.

Since the actual return for the year was less than the assumed return, LACERS experienced an actuarial loss during the year ended June 30, 2013 with regard to its investments.

## CHART 10 Actuarial Value Investment Experience for Year Ended June 30, 2013

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

		Actuarial Value	
		(Includes assets for Retirement, Health, Family Death, and Larger Annuity Benefits)	(Includes assets for Retirement Only)
1.	Actual return	\$569,510,651	\$449,012,414
2.	Average value of assets	11,719,692,607	10,013,620,115
3.	Actual rate of return: $(1) \div (2)$	4.86%	4.48%
4.	Assumed rate of return	7.75%	7.75%
5.	Expected return: (2) x (4)	\$908,276,177	\$776,055,559
6.	Actuarial loss: $(1) - (5)$	<u>-\$338,765,526</u>	<u>-\$327,043,145</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. Based on recommendations previously adopted by the Board, we have maintained the assumed long-term rate of return of 7.75% for the June 30, 2013 valuation.

CHART 11
Investment Return – Actuarial Value vs. Market Value: 2004 – 2013

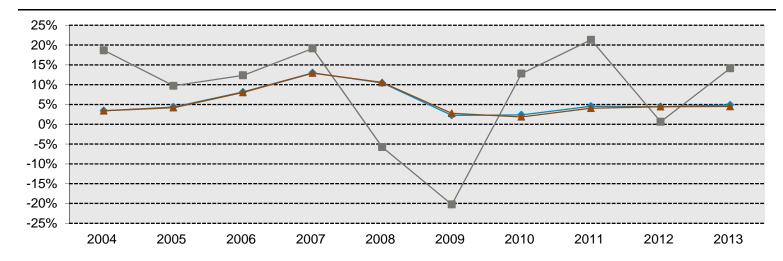
	Net Interest and Dividend Income		•	Recognition of Capital Appreciation		Actuarial Value Investment Return		Market Value Investment Return	
Year Ended June 30	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	
2004	\$171,166,339	2.19%	\$96,283,183	1.23%	\$267,449,522	3.42%	\$1,243,644,727	18.84%	
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%	
Total	\$2,303,641,168		\$3,257,986,843		\$5,561,628,011		\$6,639,322,806		
				Five-yea	ar average return	3.69%		4.62%	
				Ten-yea	ar average return	5.73%		7.50%	



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 2004 - 2013.

CHART 12
Valuation Value (Retirement Only), Actuarial Value, and Market Value Rates of Return for Years Ended June 30, 2004 - 2013





#### **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, 2013 amounted to \$233,218,343 which is 1.57% of the actuarial accrued liability.

A brief summary of the demographic gain experience of LACERS for the year ended June 30, 2013 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, 2013

1.	Gain due to lower than expected salary increases for continuing actives	\$51,858,780
2.	Gain due to lower than expected COLA granted to retirees and beneficiaries	76,122,367
3.	Gain due to change in service component used in benefit calculations in the valuation for active members	70,286,160
4.	Miscellaneous gain	<u>34,951,036</u>
5.	Net gain	\$233,218,343



#### 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 22.24% 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 2013, the

beginning of year minimum GASB ARC is \$367.4 million, so no additional adjustment has been made to the recommended contributions.

As shown in item 1 below, the total normal cost rate remained at 17.17%, from June 30, 2012 to June 30, 2013.

Year Ended June 30

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

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

2013	3	2012	
Amount	% of Payroll	Amount	% of Payroll
\$317,185,480	17.17%	\$312,372,769	17.17%
-190,396,531	<u>-10.31%</u>	<u>-187,242,501</u>	<u>-10.29%</u>
\$126,788,949	6.86%	\$125,130,268	6.88%
14,881,663,162		14,393,958,574	
-10,223,960,886		<u>-9,934,959,310</u>	
\$4,657,702,276		\$4,458,999,264	
269,013,342	14.57%	248,791,845	13.67%
<u>\$395,802,291</u>	<u>21.43%</u>	<u>\$373,922,113</u>	<u>20.55%</u>
<u>\$397,018,296</u>	<u>21.50%</u>	<u>\$375,070,896</u>	<u>20.62%</u>
<u>\$410,853,455</u>	<u>22.24%</u>	<u>\$388,141,240</u>	21.34%
\$1,846,970,474		\$1,819,269,630	
	\$317,185,480 -190,396,531 \$126,788,949 14,881,663,162 -10,223,960,886 \$4,657,702,276 269,013,342 \$395,802,291 \$397,018,296 \$410,853,455	Amount         Payroll           \$317,185,480         17.17%           -190,396,531         -10.31%           \$126,788,949         6.86%           14,881,663,162           -10,223,960,886           \$4,657,702,276           269,013,342         14.57%           \$395,802,291         21.43%           \$397,018,296         21.50%           \$410,853,455         22.24%	Amount         Payroll         Amount           \$317,185,480         17.17%         \$312,372,769           -190,396,531         -10.31%         -187,242,501           \$126,788,949         6.86%         \$125,130,268           14,881,663,162         14,393,958,574           -10,223,960,886         -9,934,959,310           \$4,657,702,276         \$4,458,999,264           269,013,342         14.57%         248,791,845           \$395,802,291         21.43%         \$373,922,113           \$397,018,296         21.50%         \$375,070,896           \$410,853,455         22.24%         \$388,141,240

<sup>(1)</sup> Both the June 30, 2013 and the June 30, 2012 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>(2)</sup> Discounted to beginning of year. The average employee rate for contributions made at the end of each pay period is actually 10.69% for the June 30, 2012 valuation and 10.71% for the June 30, 2013 valuation. The increase in the average employee rate is mainly due to the slight increase in the proportion of employees paying the additional 4% employee contribution rate.



SECTION 2: Valuation Results for the Los Angeles City Employees' Retirement System

### CHART 14 (continued)

## Recommended Contribution<sup>(1)</sup>

			Year Ende	d June 30	
		2013	<b>;</b>	2012	!
<u>Tie</u>	<u>r 2</u>	Amount	% of Payroll	Amount	% of Payroll
1.	Total normal cost	\$0	10.79%	\$0	10.79%
2.	Expected employee contributions <sup>(2)</sup>	<u>-0</u>	<u>-9.63%</u>	<u>-0</u>	<u>-9.63%</u>
3.	Employer normal cost: $(1) + (2)$	\$0	1.16%	\$0	1.16%
4.	Actuarial accrued liability	0		0	
5.	Valuation value of assets	<u>-0</u>		<u>-0</u>	
6.	Unfunded actuarial accrued liability	\$0		\$0	
7.	Amortization of unfunded accrued liability <sup>(3)</sup>	0	14.57%	0	13.67%
8.	Total recommended contribution, beginning of year: (3) + (7)	<u>\$0</u>	<u>15.73%</u>	<u>\$0</u>	<u>14.83%</u>
9.	Total recommended contribution, July 15	<u>\$0</u>	<u>15.77%</u>	<u>\$0</u>	<u>14.88%</u>
10.	Total recommended contribution, end of pay periods	<u>\$0</u>	<u>16.33%</u>	<u>\$0</u>	<u>15.39%</u>
11.	Projected payroll	\$0		\$0	

<sup>(1)</sup> Both the June 30, 2013 and the June 30, 2012 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>&</sup>lt;sup>(2)</sup> 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, 2012 and June 30, 2013 valuations.

<sup>(3)</sup> 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.

If paid by the City at the beginning of the year, the calculated normal cost (including expenses) is 6.86% of payroll. The remaining 14.57% of payroll will amortize the unfunded actuarial accrued liability over an equivalent single amortization period of about 26 years.

The contribution rates as of June 30, 2013 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\* from June 30, 2012 to June 30, 2013

Recommended Contribution as of June 30, 2012 for Tier 1	21.34%
Effect of decrease in employer normal cost due to payroll and demographic changes	-0.01%
Effect of increase in amortization component due to less than expected payroll	0.38%
Effect of contributions less than recommended contribution	0.10%
Effect of investment loss	1.53%
Effect of other gains on accrued liability**	<u>-1.10%</u>
Total change	<u>0.90%</u>
Recommended Contribution as of June 30, 2013 for Tier 1	22.24%

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



<sup>\*\*</sup> Primarily from lower than expected salary increases for continuing actives, lower than expected COLA granted to retirees and beneficiaries, and the change in the service component used in benefit calculations in the valuation for active members.

#### E. INFORMATION REQUIRED BY GASB

Governmental Accounting Standards Board (GASB) reporting information provides standardized information for comparative purposes for governmental pension plans. This information allows a reader of the financial statements to compare the funding status of one governmental plan to another on relatively equal terms.

Critical information to the GASB is the historical comparison of the GASB required contribution to the actual contributions. This comparison demonstrates whether a plan is being funded within the range of GASB reporting requirements. Chart 16 below presents a graphical representation of this information for the Plan.

The other 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 under GASB standards. High ratios indicate a well-funded plan with assets sufficient to pay most benefits. 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.

Although the GASB requires that the actuarial value of assets be used to determine the funded ratio, Chart 17 shows the funded ratio calculated using both the actuarial value of assets and the market value of assets.

The details regarding the calculations of these values and other GASB numbers may be found in Section 4, Exhibits II, III, and IV.

These graphs show key GASB factors.

CHART 16
Required Versus Actual Contributions

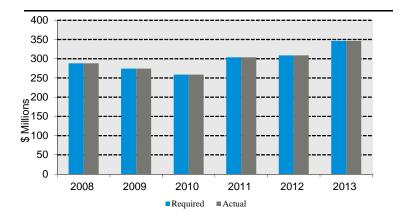
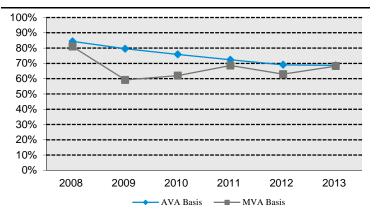


CHART 17 Funded Ratio





#### 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 5.5. This means that a 1% asset gain/(loss) (relative to the assumed investment return) translates to about 5.5% 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 8.1. This is about 47% 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 18
Volatility Ratios for Years Ended June 30, 2008 – 2013

Year Ended June 30	Asset Volatility Ratio	Liability Volatility Ratio		
2008	4.6	5.7		
2009	3.8	6.5		
2010	4.3	6.9		
2011	5.0	7.3		
2012	5.0	7.9		
2013	5.5	8.1		



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

EXHIBIT A

Table of Plan Coverage

	Year End	Change From	
Category	2013	2012	Prior Year
Active members in valuation:			
Number	24,441	24,917	-1.9%
Average age	48.3	47.8	N/A
Average service	14.5	13.9	N/A
Projected total payroll*	\$1,846,970,474	\$1,819,269,630	1.5%
Projected average payroll*	\$75,569	\$73,013	3.5%
Account balances	\$1,652,402,923	\$1,522,033,113	8.6%
Total active vested members	21,901	21,410	2.3%
Inactive members:			
Number	5,799	5,808	-0.2%
Average age	44.3	43.8	N/A
Average contribution balance for those with under 5 years of service	\$4,732	\$4,762	-0.6%
Average monthly benefit at age 60 for those with 5 or more years of service**	\$1,388	\$1,399	-0.8%
Retired members:			
Number in pay status	12,771	12,634	1.1%
Average service at retirement	26.8	26.9	N/A
Average age at retirement	60.1	60.1	N/A
Average age	71.5	71.2	N/A
Average monthly benefit (includes July COLA)	\$3,885	\$3,804	2.1%
Disabled members:			
Number in pay status	898	897	0.1%
Average service at retirement	12.0	12.0	N/A
Average age at retirement	46.0	45.6	N/A
Average age	64.1	63.6	N/A
Average monthly benefit (includes July COLA)	\$1,570	\$1,534	2.3%
Beneficiaries:			
Number in pay status	3,693	3,692	0.0%
Average age	76.2	76.2	N/A
Average monthly benefit (includes July COLA)	\$1,958	\$1,888	3.7%

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



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

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

EXHIBIT B

Members in Active Service as of June 30, 2013

By Age, Years of Service, and Average Payroll

					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	190	179	11							
	\$42,169	\$41,662	\$50,419							
25 - 29	1,040	550	486	4						
	53,063	50,247	56,259	\$51,801						
30 - 34	2,121	456	1,313	348	4					
	65,032	59,067	66,536	67,161	\$66,299					
35 - 39	2,572	296	1,169	978	128	1				
	72,270	62,992	71,156	75,951	75,834	\$64,693				
40 - 44	3,057	276	971	1,079	485	222	24			
	75,627	65,465	67,890	79,027	84,029	86,779	\$79,739			
45 - 49	3,999	242	882	1,002	510	852	495	16		
	78,647	60,643	67,297	75,780	86,279	90,944	83,933	\$94,463		
50 - 54	4,607	249	736	848	428	869	1,079	386	12	
	81,736	62,098	66,440	75,080	81,756	89,197	93,914	86,780	\$99,477	
55 - 59	3,446	146	626	705	322	584	718	257	87	1
	81,066	61,908	67,449	73,099	80,902	87,646	94,567	92,506	86,974	\$80,146
60 - 64	2,090	98	385	496	204	304	373	126	81	23
	78,655	60,254	63,830	72,639	79,904	86,037	88,098	93,473	101,834	110,410
65 - 69	906	51	160	229	105	118	139	46	27	31
	74,600	58,157	59,017	71,013	76,140	77,397	82,330	93,472	101,995	106,204
70 & over	413	32	86	103	45	52	53	19	9	14
	63,860	35,047	48,272	60,067	64,814	77,793	76,705	85,923	85,096	106,333
Total	24,441	2,575	6,825	5,792	2,231	3,002	2,881	850	216	69
	\$75,569	\$57,441	\$66,375	\$74,713	\$82,018	\$88,223	\$90,615	\$89,991	\$95,040	\$107,255



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

**EXHIBIT C**Reconciliation of Member Data

	Active Members	Inactive Members	Disableds	Retired Members	Beneficiaries	Total
Number as of June 30, 2012	24,917	5,808	897	12,634	3,692	47,948
New members	558	N/A	N/A	N/A	N/A	558
Terminations – with vested rights	-605	605	0	0	0	0
Retirements	-411	-101	N/A	512	N/A	0
New disabilities	-2	-37	39	N/A	N/A	0
Died with beneficiary	N/A	N/A	N/A	N/A	221	221
Deaths or benefits expired	-67	-23	-37	-375	-220	-722
Refund of members contributions	-222	-216	0	0	0	-438
Rehired	273	-272	-1	0	N/A	0
Data adjustments	0	<u>35*</u>	0	0	0	35
Number as of June 30, 2013	24,441	5,799	898	12,771	3,693	47,602

<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 30,		0, 2013	June 30, 2012	
Contribution income:				
Employer contributions	\$419,266,581		\$423,920,740	
Employee contributions	<u>197,880,631</u>		178,246,151	
Net contribution income		\$617,147,212		\$602,166,891
Investment income:				
Interest, dividends and other income	\$291,462,597		\$250,580,061	
Recognition of capital appreciation	315,633,473		290,831,650	
Less investment and administrative fees	<u>-37,585,419</u>		<u>-36,599,183</u>	
Net investment income		\$569,510,651		\$504,812,528
Total income available for benefits		\$1,186,657,863		\$1,106,979,419
Less benefit payments:				
Payment of benefits	-\$785,308,070		-\$756,062,733	
Refunds of contributions	<u>-17,697,282</u>		<u>-11,100,595</u>	
Net benefit payments		-\$803,005,352		-\$767,163,328
Change in reserve for future benefits		\$383,652,511		\$339,816,091

Note: Results may be slightly off due to rounding.



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

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

	June 3	80, 2013	June 3	30, 2012
Cash equivalents		\$606,604,488		\$392,891,992
Accounts receivable:				
Investment income	\$38,025,127		\$34,986,262	
Proceeds from sales	1,688,400,219		57,169,167	
Other	<u>8,321,633</u>		<u>7,590,978</u>	
Total accounts receivable		\$1,734,746,979		\$99,746,407
Investments:				
Fixed Income	\$2,655,956,957		\$2,603,009,587	
Equities	7,078,720,385		5,859,900,968	
Real Estate and Alternative Investment	1,889,238,399		1,835,006,695	
Other	1,158,517,375		933,960,402	
Total investments at market value		\$12,782,433,116		\$11,231,877,652
Total assets		\$15,123,784,583		\$11,724,516,051
Less accounts payable:				
Accounts payable and accrued expenses	-\$56,204,879		-\$39,898,959	
Derivative instruments	-18,518		0	
Purchases of investments	-1,989,039,830		-238,732,442	
Security lending collateral	-1,155,982,440		<u>-850,183,665</u>	
Total accounts payable		-\$3,201,245,667		-\$1,128,815,066
Net assets at market value		\$11,922,538,917		\$10,595,700,986
Net assets at actuarial value		\$12,004,110,338		\$11,620,457,827
Net assets at valuation value (retirement benefits)		\$10,223,960,886		\$9,934,959,310

Note: Results may be slightly off due to rounding.



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

EXHIBIT F

Development of the Fund Through June 30, 2013 for Retirement, Health, Family Death, and Larger Annuity Benefits

			Net		Actuarial Value of
Year Ended June 30	Employer Contributions	Employee Contributions	Investment Return*	Benefit Payments	Assets at End of Year
2008	\$411,658,277	\$114,678,456	\$1,042,592,669**	\$576,014,324***	\$10,805,841,634
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

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



<sup>\*\*</sup> Includes an \$11,000,000 return of excess reserve from PPO carrier.

<sup>\*\*\*</sup> Includes transfer of \$6,220,076 to Fire and Police pension.

## **EXHIBIT G**

## Development of Unfunded Actuarial Accrued Liability for Year Ended June 30, 2013

1. Unfunded actuarial accrued liability at beginning of year	\$4,458,999,264
2. Normal cost at beginning of year	312,372,769
3. Total contributions	-543,903,017
4. Interest	<u>336,408,458</u>
5. Expected unfunded actuarial accrued liability	\$4,563,877,474
6. Changes due to experience loss*	93,824,802
7. Unfunded actuarial accrued liability at end of year	<u>\$4,657,702,276</u>

<sup>\*</sup> Excludes a \$22,198,187 loss from contributions less than anticipated due to one-year delay in implementing the higher contribution rate calculated in the June 30, 2012 valuation. That loss is already included in the development of item 5.

The breakdown of the experience loss is as follows:

Investment loss	\$327,043,145
(Gain) due to lower than expected salary increases for continuing actives	(51,858,780)
(Gain) due to lower than expected COLA granted to retirees and beneficiaries	(76,122,367)
(Gain) due to change in service component used in benefit calculations in the valuation for active members	(70,286,160)
Miscellaneous (gain)	(34,951,036)
Total loss	\$93,824,802



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

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	\$277,036,443	11	\$29,545,071
Combined base	06/30/2012	30	4,173,548,280	4,264,642,844	29	224,807,919
Experience loss	06/30/2013	15	116,022,989	116,022,989	15	9,647,845
Subtotal before GASB amount				\$4,657,702,276		\$264,000,835
40-year minimum GASB 25/27	06/30/2004	15	29,189,615	19,563,131	6	3,535,491
40-year minimum GASB 25/27	06/30/2005	15	12,708,684	9,384,396	7	<u>1,477,016</u>
Total				\$4,686,649,803		\$269,013,342

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

*Note:* The equivalent single amortization period is about 26 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 \$205,000 for 2013. 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.

EX	(HIBIT I		
Su	ımmary 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 3,693 beneficiaries in pay status)		17,362
2.	Inactive members during year ended June 30, 2013 (including 4,131 members with under 5 years of service eligible for a refund of contributions)		5,799
3.	Members active during the year ended June 30, 2013		24,441
	Fully vested	21,901	
	Not vested	2,540	
Th	e actuarial factors as of the valuation date are as follows:		
	Assets		
1.	Valuation value of assets (\$11,922,538,917 at market value and \$12,004,110,338 at actuarial value as reported by LACERS*)		\$10,223,960,886
2.	Present value of future normal costs		
	Employee	\$1,622,103,381	
	Employer	1,082,753,127	
	Total		2,704,856,508
3.	Unfunded actuarial accrued liability		4,657,702,276
4.	Present value of current and future assets		\$17,586,519,670
	Liabilities		
5.	Present value of future benefits		
	Retired members and beneficiaries	\$7,899,555,457	
	Inactive members	271,800,573	
	Active members	9,415,163,640	
	Total		\$17,586,519,670

<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\*

The determination of the recommended contribution is as follows:

		<u>Tier 1</u>	<u>Tier 2</u>
1.	Total normal cost	\$317,185,480	\$0
2.	Expected employee contributions**	<u>-190,396,531</u>	<u>-0</u>
3.	Employer normal cost: $(1) + (2)$	\$126,788,949	\$0
4.	Payment on projected unfunded actuarial accrued liability	269,013,342	0
5.	Total recommended contribution: (3) + (4), payable beginning of year	<u>\$395,802,291</u>	<u>\$0</u>
6.	Total recommended contribution: adjusted for July 15 payment	<u>\$397,018,296</u>	<u>\$0</u>
7.	Total recommended contribution: adjusted for biweekly payment	<u>\$410,853,455</u>	<u>\$0</u>
8.	Projected payroll	\$1,846,970,474	\$0
9.	Item 5 as a percentage of projected payroll: (5) ÷ (8)	21.43%	15.73%
10.	Item 6 as a percentage of projected payroll: (6) ÷ (8)	21.50%	15.77%
11.	Item 7 as a percentage of projected payroll: (7) ÷ (8)	22.24%	16.33%

<sup>\*</sup> The contribution rates for the June 30, 2013 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> Discounted to beginning of year.

EXHIBIT II

Supplementary Information Required by the GASB – Schedule of Employer Contributions

Plan Year Ended June 30	Annual Required Contributions	Actual Contributions	Percentage Contributed
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%



SECTION 4: Reporting Information for the Los Angeles City Employees' Retirement System

EXHIBIT III

Supplementary Information Required by the GASB – 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)
06/30/2008	\$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%



EXHIBIT IV			
Supplementary	/ Information Red	uired by th	ne GASB

Valuation date	June 30, 2013
Actuarial cost method	Entry Age Cost Method, level percent of salary
Amortization method	Level percent of payroll – assuming a 4.25% increase in total covered payroll.
Remaining amortization period	Multiple layers. Actuarial gains/losses are amortized over 15 years. Assumption or method changes are amortized over 30 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	7.75%
Inflation rate	3.50%
Real across-the-board salary increase	0.75%
Projected salary increases	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%
Plan membership:	
Retired members and beneficiaries receiving benefits	17,362
Inactive members*	5,799
Active members	<u>24,441</u>
Total	47,602

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



SECTION 4: Reporting Information for the Los Angeles City Employees' Retirement System

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)
2008	\$288,119,041	\$288,119,041	\$6,537,822	\$8,289,017	10.8207	\$286,367,846	\$(1,751,195)	\$79,971,585
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

<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: RP-2000 Combined Healthy Mortality Table, set back 2 years for males and set back

1 year for females.

Disabled: RP-2000 Combined Healthy Mortality Table, set forward 5 years for males and set

forward 6 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, set back 2 years for males and set back

D - ( - (0/)

1 year for females.

	Rat	te (%)
Age	Disability	Termination*
25	0.01	5.50
30	0.03	5.35
35	0.05	4.35
40	0.09	3.15
45	0.15	2.30
50	0.19	1.85
55	0.20	1.75
60	0.20	1.75

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



SECTION 4: Reporting Information for the Los Angeles City Employees' Retirement System

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	

Retirement Rates: Rate (%)

	Tier 1		Tier	2
Age	Non-55/30	55/30	Non-55/30	55/30
50	8.0	0.0	0.0	0.0
51	4.0	0.0	0.0	0.0
52	4.0	0.0	0.0	0.0
53	4.0	0.0	0.0	0.0
54	15.0	0.0	0.0	0.0
55	8.0	20.0	3.5	8.0
56	8.0	15.0	3.5	7.0
57	8.0	15.0	3.5	7.0
58	8.0	15.0	3.5	7.0
59	8.0	15.0	3.5	7.0
60	8.0	15.0	5.5	7.0
61	8.0	16.0	5.5	9.0
62	8.0	17.0	5.5	11.0
63	8.0	18.0	5.5	13.0
64	8.0	19.0	5.5	16.0
65	13.0	20.0	12.0	19.0
66	13.0	20.0	12.0	19.0
67	13.0	20.0	12.0	19.0
68	13.0	20.0	12.0	19.0
69	13.0	20.0	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 57 or the current attained age.

For reciprocals, 4.65% 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:** Female spouses 3 years younger than their 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: 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 3.0% maximum.

**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%; 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.

## **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 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 VII**

## **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
(§ 4.1020)	Age 60 with 10 years of continuous service; or

## Tier 2

*Amount (§ 4.1022)* 

Age & Service Requirement Age 70; or

(§ 4.1002.1) Age 65 with 10 years of continuous service.

Amount (§ 4.1002.1) 2.00% per year of service credit (not greater than 75%) of the Final Average

Age 55 with at least 30 years of service.

2.16% per year of service credit (not greater than 100%) of the Final Average

Monthly Compensation.

Monthly Compensation.



## **Early Retirement Benefit:**

#### Tier 1

Age & Service Requirement

(§ 4.1020)

Amount (§ 4.1056.2)

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	Factor
45	0.6250
50	0.7750
55	0.9250
60	1.0000

#### Tier 2

Age & Service Requirement

(§ 4.1002.1)

Amount (§ 4.1002.1)

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	<b>Factor</b>	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:** 

(§ 4.1001)

The time component of the formula used by LACERS for purposes of calculating benefits.



Final Average Monthly Compensation:		
<u>Tier 1</u>		
(§ 4.1010)	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>		
(§ 4.1002.1)	Equivalent of monthly average salary of highest continuous 36 months (three years); limited to base salary (excludes bonuses or premium pay).	
Cost of Living Benefit:		
<u>Tier 1</u>		
(§ 4.1040)	Based on changes to Los Angeles area Consumer Price Index, to a maximum of 3% per year; excess banked.	
<u>Tier 2</u>		
(§ 4.1002.1)	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 cost for such purchases by the member is therefore not included in this valuation.	
Death after Retirement:		
<u>Tier 1</u>		
(§ 4.1044)	(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> (§ 4.1002.1)

- (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 4.1044.5 or Section 4.1053.

## **Death before Retirement:**

Tier 1

(§ 4.1062 and § 4.1054)

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



## Tier 1 (continued)

## 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> (§ 4.1002.1)

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

## 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.

<b>Member Normal Contribution</b>	s:
<u>Tier 1</u>	
(§ 4.1031)	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).
	* The member normal contribution rate will drop down to 6% afterwards.
<u>Tier 2</u>	
(§ 4.1002.1)	Actuarially determined rate to fund 75% of normal costs and 50% of UAAL for Tier 2. The initial rate is 10% 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.
<b>Disability:</b> (§ 4.1055)	
<u>Tier 1</u>	
Service Requirement	5 years of continuous service
Amount*	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.
<u>Tier 2</u>	
Service Requirement	10 years of continuous service

1/90 (1.11%) of the Final Average Monthly Compensation per year of service.



Amount\*

<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):**

Tier 1

(§ 4.1020 and § 4.1059.1)

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)

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

(§ 4.1002.1)

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:**

Ordinance No. 182296 was approved on November 8, 2012, which established a new Tier 2 for employees hired on or after July 1, 2013 (with the exceptions noted in Section 4.1002.1 of the LACERS Administrative Code). The plan provisions for Tier 2 members are included herein.

#### **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 to ensure the proper provisions are valued.

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# Los Angeles City Employees' Retirement System

Actuarial Valuation and Review of Other Postemployment Benefits (OPEB) as of June 30, 2013 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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*November 7, 2013* 

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

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review of Other Postemployment Benefits (OPEB) as of June 30, 2013 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, 2013, establishes the Annual Required Contribution (ARC) for the coming year, 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.

By:

Paul Angelo, FSA, MAAA, EA, FCA

Senior Vice President and Actuary

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

JRC/bqb

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V	/AL	UAT	ION	SU	MM/	ARY

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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, 2013. 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 \$101.0 million (5.55% of payroll) to \$103.6 million (5.61% of payroll), assuming contributions are made by the City on July 15. A reconciliation of the change in the recommended contribution rate is provided on page 24, Section 3. Note that the combined (Tier 1 and 2) contribution rates for the entire plan are equal to the Tier 1 rates only, due to the absence of Tier 2 data.
- ➤ The funded ratio on an actuarial value basis has increased from 71.64% to 71.91% in this valuation. On a market value basis, the funded ratio has increased from 65.33% to 71.42%. The unfunded actuarial accrued liability (UAAL) has increased from \$650.0 million to \$677.8 million. A reconciliation of the change in the UAAL is provided on page 7, Section 2.
- ➤ In the June 30, 2011 valuation, the retiree health benefits liability reflected for the first time the freeze in medical subsidy for non-retired members who did not begin to contribute additional employee contributions to the Pension Plan. In the June 30, 2013 valuation, about 95% of non-retired members are making the 4% additional contribution based on the data available for this valuation, and are not subject to the freeze. Note that there is a recent court ruling dated September 13,

- 2013 that would result in unfreezing the medical subsidy for members covered under MOU#29 (Deputy City Attorneys) and # 31 (Confidential Attorneys). As that ruling is not yet finalized, we have been directed by the Board to not reflect any additional liability that may result from unfreezing the subsidy in this valuation.
- Our cost study dated April 4, 2013 established the contribution rates for Tier 2 members for the 2013/2014 fiscal year. The study used assumptions, including premiums and trends, from the June 30, 2012 retiree health valuation. The June 30, 2013 valuation data does not include Tier 2 members as they have not yet been hired as of that date. Based on our recommendation, the Board has agreed to defer the update of the contribution rates for the retiree health plan until the June 30, 2014 valuation, when actual Tier 2 members would be included in the census provided for that valuation. At that point, the Tier 2 contribution rates would reflect both the updated assumptions and demographics.
- The funding method used to develop the ARC is the Entry Age Cost Method, a method that will produce a level normal cost as a percent of payroll for individual members.
- > The discount rate for this valuation is 7.75%, and is based on the assumptions that the City is paying a contribution that equals the ARC and that 100% of benefits will be paid from the trust.
- ➤ On October 25, 2011, the Board elected to phase in the impact of new actuarial assumptions 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 2013-2014 are contained in this report. In a separate letter, we provide the "phased-in" contribution rates for Fiscal Year 2014-2015.
- > As indicated in Section 3, Exhibit G of this report, the total unrecognized investment loss as of June 30, 2013 is \$81.6 million for the assets for Retirement, Health, Family Death, and Larger Annuity Benefits. For comparison purposes, the total unrecognized investment loss as of June 30, 2012 was \$1,024.8 million. This investment loss will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years. This implies that earning the assumed rate of investment return of 7.75% per year (net of expenses) on a market value basis will result in investment losses on the actuarial value of assets in the next few years. Therefore, if the actual market return is equal to the assumed 7.75% rate and all other actuarial assumptions are met, the contribution requirements would increase in the next few years.
- > The deferred losses of \$81.6 million represent 0.68% of the market value of assets as of June 30, 2013. Unless offset by future investment gains or other favorable experience, the recognition of the \$81.6 million in market losses 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 deferred losses were recognized immediately in the valuation value of assets, the funded percentage would decrease from 71.91% to 71.42%.

- If the deferred losses were recognized immediately in the valuation value of assets, the aggregate employer rate (payable on July 15) would increase from 5.61% to 5.66% of payroll.
- > Item 9 in Exhibit G shows that under the asset smoothing method, the \$81.6 million in net deferred losses will be recognized in the next six years, but in a very non-level (uneven) pattern. In particular, there will be losses recognized in the next two years, followed by two years of gains, then one year of losses, and finally one year of gains, so as to ultimately recognize all of the current total net deferred losses of \$81.6 million. This means that, absent any new gains or losses in the future, there will be two more years of increases in the employer contribution rate, followed by two years of decreases, then one year of increases, and finally one year of decreases, before the \$81.6 million in net deferred losses are fully recognized.

In keeping with model actuarial practice for this situation, effective July 1, 2013, the asset smoothing method could be modified by combining the net deferred losses of \$81.6 million from the current valuation into a single six-year smoothing "layer" and thereby recognizing those net deferred losses over the next six years in six level amounts of approximately \$13.6 million in each year. This would reduce the volatility associated with the current pattern of deferred gain/loss recognition and thereby result in both more stable funded ratios (on an actuarial value basis) and more level employer contribution rates.

Please note that this change would have no impact on the current June 30, 2013 valuation results as the total amount of unrecognized losses as of June 30, 2013



would remain unchanged. Also, note that we recommend using a six-year smoothing period for the combined deferred losses as that will complete the recognition of those net losses over the same time period as under the current separate smoothing layers. We will provide more discussion of this policy option during our presentation of June 30, 2013 valuation.

Actuarial Standard of Practice (ASOP) No. 6 states, "The actuary should consider the variation in rates by age for the benefits being modeled and use appropriate age bands if the rates vary significantly." This is similar to a suggestion made by the actuarial auditor when they reviewed the results of the June 30, 2012 valuation. In this valuation, we have not yet adjusted the assumed per capita costs as shown in Exhibit II by age. However, we would suggest reviewing the assumptions necessary in developing age-specific costs as part of the triennial experience study before the June 30, 2014 valuation to determine if such adjustments would be warranted because we do not believe that it would measurably affect the valuation results. ASOP 6 is currently undergoing review and possible modifications, deferring any possible adjustment should allow Segal to incorporate any changes in developing the adjustment factors.



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

## SUMMARY OF VALUATION RESULTS

	June 30, 2013	June 30, 2012
Actuarial Accrued Liability (AAL)	\$2,412,483,968	\$2,292,400,227
Actuarial Value of Assets	1,734,733,258	1,642,373,560
Unfunded Actuarial Accrued Liability	677,750,710	650,026,667
Funded Ratio on Actuarial Value Basis	71.91%	71.64%
Market Value of Assets	\$1,722,945,241	\$1,497,539,891
Funded Ratio on Market Value Basis	71.42%	65.33%
Annual Required Contribution (ARC) for coming year for Tier 1*		
Normal cost (beginning of year)	\$64,319,088	\$64,622,420
Amortization of the unfunded actuarial accrued liability	<u>38,944,535</u>	<u>36,064,191</u>
Total Annual Required Contribution (beginning of year)	\$103,263,623	\$100,686,611
Total Annual Required Contribution (July 15)	103,585,288	101,000,249
Total Annual Required Contribution (end of each pay period)	107,190,426	104,515,418
Projected total payroll**	\$1,846,970,474	\$1,819,269,630
ARC as a percentage of pay***		
Beginning of year	5.59%	5.53%
July 15	5.61%	5.55%
End of each pay period	5.80%	5.74%
Total Participants	43,544	43,877
Annual OPEB Cost (AOC) for Coming Year		
Annual Required Contributions (July 15)	\$101,000,249	\$79,597,005
Interest on Net OPEB Obligations	0	0
ARC Adjustments	<u>0</u>	<u>0</u>
Total Annual OPEB Cost	\$101,000,249	\$79,597,005
AOC as a percent of pay	5.55%	4.34%

<sup>\*</sup> Both the June 30, 2013 and June 30, 2012 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>\*\*\*</sup> A breakdown of the ARC by tier is provided in Chart 4.



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

November 7, 2013

#### ACTUARIAL CERTIFICATION

This is to certify that Segal Consulting 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, 2013, in accordance with generally accepted actuarial principles and practices. The actuarial calculations presented in this report have been made on a basis consistent with our understanding of 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 expense data provided by the LACERS.

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.

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



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, 2013	June 30, 2012	
Participant Category			
Current retirees, beneficiaries, and dependents	\$1,104,832,577	\$1,083,168,136	
Current active members	1,854,072,110	1,778,567,090	
Terminated members entitled but not yet eligible	<u>26,868,636</u>	<u>24,454,075</u>	
Total	\$2,985,773,323	\$2,886,189,301	
	June 30, 2013	June 30, 2012	
Actuarial Balance Sheet			
The actuarial balance sheet as of the valuation date is as follows:			
Assets			
1. Actuarial value of assets	\$1,734,733,258	\$1,642,373,560	
2. Present value of future normal costs	573,289,355	593,789,074	
3. Unfunded actuarial accrued liability	<u>677,750,710</u>	650,026,667	
4. Present value of current and future assets	\$2,985,773,323	\$2,886,189,301	
Liabilities			
5. Actuarial Present Value of total Projected Benefits	\$2,985,773,323	\$2,886,189,301	



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, 2013	June 30, 2012
Partici	pant Category		
Current retirees, beneficiaries, and dependents		\$1,104,832,577	\$1,083,168,136
Current	t active members	1,280,782,755	1,184,778,016
Termin	ated members entitled but not yet eligible	<u>26,868,636</u>	24,454,075
Total a	ctuarial accrued liability	\$2,412,483,968	\$2,292,400,227
Unfun	ded Actuarial Accrued Liability		
Total actuarial accrued liability \$2,412,4		\$2,412,483,968	\$2,292,400,227
Actuarial value of assets \$1,734,733,258			1,642,373,560
Unfunded actuarial accrued liability \$677,750,710		\$677,750,710	\$650,026,667
Develo	pment of Unfunded Actuarial Accrued Liability for the Year End	ed June 30, 2013	
1.	Unfunded actuarial accrued liability as of June 30, 2012		\$650,026,667
2.	Employer normal cost as of June 30, 2012		64,622,420
3.	Total employer contributions during 2012/2013 fiscal year		72,916,729
4.	Interest	49,97	
5.	Expected Unfunded actuarial accrued liability as of June 30, 2013 (1 +	691,710,594	
6.	Change due to investment <u>loss</u> offset by premiums increasing less than	a expected*	-13,959,884
7.	Unfunded actuarial accrued liability as of June 30, 2013 (5 + 6)		\$677,750,710

<sup>\*</sup> Excludes a \$30,166,026 loss from contributions less than anticipated due to one-year delay in implementing the higher contribution rate calculated in the June 30, 2012 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 30 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	\$50,507,955	\$5,386,516	11
Combined base**	06/30/2012	30	597,984,614	611,036,613	32,210,404	29
Experience loss	06/30/2013	15	16,206,142	16,206,142	1,347,615	15
Total				\$677,750,710	\$38,944,535	

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

Note: The equivalent single amortization period is about 26 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)

Tier 1 - Cost Element		Determined as of June 30				
Her	1 - Cost Element	20	013*	20	)12*	
		Amount	Percentage of Compensation	Amount	Percentage of Compensation	
1.	Normal cost	\$64,319,088	3.48%	\$64,622,420	3.55%	
2.	Amortization of the unfunded actuarial accrued liability	38,944,535	<u>2.11%</u> **	36,064,191	<u>1.98%</u> **	
3.	Total Annual Required Contribution (beginning of year)	\$103,263,623	5.59%	\$100,686,611	5.53%	
4.	Projected Payroll***	\$1,846,970,474		\$1,819,269,630		
5.	Adjustment for timing (July 15)	321,665	0.02%	\$313,638	0.02%	
6.	Total Annual Required Contribution (July 15)	\$103,585,288	5.61%	\$101,000,249	5.55%	
7.	Adjustment for timing (end of pay period)	3,926,803	0.21%	\$3,828,807	0.21%	
8.	Total Annual Required Contribution (end of pay period)	\$107,190,426	5.80%	\$104,515,418	5.74%	

<sup>\*</sup> Both the June 30, 2012 and 2013 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> Reflects amount calculated in the pension valuation.



<sup>\*\*</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.

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

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

Tier 2 - Cost Element		Determined as of June 30			
Her	2 - Cost Element	2	013*	20	)1 <b>2</b> *
		Amount	Percentage of Compensation	Amount	Percentage of Compensation
1.	Normal cost	\$0	2.29%	\$0	2.29%
2.	Amortization of the unfunded actuarial accrued liability	<u>0</u>	<u>2.11%</u> **	<u>0</u>	<u>1.98%</u> **
3.	Total Annual Required Contribution (beginning of year)	\$0	4.40%	\$0	4.27%
4.	Projected Payroll***	\$0		\$0	
5.	Adjustment for timing (July 15)	0	0.01%	\$0	0.01%
6.	Total Annual Required Contribution (July 15)	\$0	4.41%	\$0	4.28%
7.	Adjustment for timing (end of pay period)	0	0.16%	\$0	0.16%
8.	Total Annual Required Contribution (end of pay period)	\$0	4.56%	\$0	4.43%

<sup>\*</sup> Both the June 30, 2012 and 2013 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> Even though the City will be paying a UAAL contribution 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> Reflects amount calculated in the pension valuation.

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)** 

		Determined as of June 30				
	Cost Element	20	13*	20	12*	
		Amount	Percentage of Compensation	Amount	Percentage of Compensation	
1.	Annual Required Contribution (July 15)	\$103,585,288	5.61%	\$101,000,249	5.55%	
2.	Interest on Beginning of Year Net OPEB Obligation (NOO)	0	0.00%	0	0.00%	
3.	ARC adjustment	0	<u>0.00%</u>	0	0.00%	
4.	Annual OPEB Cost (July 15)	<u>\$103,585,288</u>	<u>5.61%</u>	<u>\$101,000,249</u>	<u>5.55%</u>	

<sup>\*</sup> June 30, 2012 and 2013 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
2008	\$108,848,499	\$108,848,499	100.00%
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%

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

Fiscal Year Ended June 30	Annual OPEB Cost	Actual Contributions	Percentage Contributed
2008	\$108,848,499	\$108,848,499	100.00%
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%



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)]
06/30/2008	\$1,342,919,611	\$1,928,042,900	\$585,123,289	69.65%	\$1,977,644,640	29.59%
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%

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



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)
06/30/2008	\$108,848,499	\$0	\$0	\$108,848,499	\$108,848,499	\$0	\$0
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



#### **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 0.93. This means that a 1% asset gain/(loss) (relative to the assumed investment return) translates to about 0.93% of one-year's payroll. Since LACERS amortizes actuarial gains and losses over a period of 15 years, there would be a 0.08% 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 1.31. This is about 41% 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, 2008 – 2013

Year Ended June 30	Asset Volatility Ratio	Liability Volatility Ratio
2008	0.65	0.97
2009	0.55	1.13
2010	0.64	1.23
2011	0.80	1.07
2012	0.82	1.26
2013	0.93	1.31



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 seven valuations can be seen in this chart.

# CHART 9 Member Population: 2007 – 2013

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

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



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

SECTION 3: Supplemental Valuation Details for the Los Angeles City Employees' Retirement System Measurement Under GASB 43 and 45 as of June 30, 2013

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

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

	June 30, 2013	June 30, 2012
Retirees*		
Number of non-disabled	11,552	11,439
Number of disabled	320	<u>300</u>
Total number of retirees	11,872	11,739
Average age of retirees	71.4	71.1
Number of spouses	4,650	4,671
Average age of spouses	68.1	67.6
Surviving Spouses*		
Number	1,720	1,692
Average age	78.8	79.2
Active Participants		
Number	24,441	24,917
Average age	48.3	47.8
Average years of service	14.5	13.9
Inactive Vested Participants (excluding those with less than 10 years of service)		
Number	861	858
Average age	51.3	50.7

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



SECTION 3: Supplemental Valuation Details for the Los Angeles City Employees' Retirement System Measurement Under GASB 43 and 45 as of June 30, 2013

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

	June 30, 2013	June 30, 2012
Retirees	-	
Pension valuation	12,771	12,634
Retirees with no subsidy due to service or decision not to enroll	-1,186	-1,170
Deferred retirees eligible for future health benefits	<u>-33</u>	<u>-25</u>
Health valuation	11,552	11,439
Disableds		
Pension valuation	898	897
Disableds with no subsidy due to service or decision not to enroll	-485	-488
Deferred disableds eligible for future health benefits	<u>-93</u>	<u>-109</u>
Health valuation	320	300
Surviving Spouses		
Pension valuation	3,693	3,692
Surviving spouses with no subsidy due to service or decision not to enroll	-1,895	-1,920
Deferred surviving spouses eligible for future health benefits	<u>-78</u>	<u>-80</u>
Health valuation	1,720	1,692
Actives		
Pension valuation	24,441	24,917
Health valuation	24,441	24,917
Inactive Vested		
Pension valuation	5,799	5,808
Inactive vesteds with less than 10 years of service	<u>-4,938</u>	<u>-4,950</u>
Health valuation	861	858



SECTION 3: Supplemental Valuation Details for the Los Angeles City Employees' Retirement System Measurement Under GASB 43 and 45 as of June 30, 2013

**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>
2008	1,139	\$6,472,277	471	\$2,051,109	12,004	\$71,023,368	6.6%	\$5,917
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	7,443

<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 ARCin 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*			Projected Benefit Payments		
June 30	Current	Future	Total	Current	Future	Total
2014	18,242	1,069	19,311	\$98,376,423	\$7,178,859	\$105,555,282
2015	17,680	1,894	19,574	98,860,457	14,211,638	113,072,095
2016	17,109	2,802	19,911	99,478,036	22,824,250	122,302,286
2017	16,536	3,808	20,344	99,661,240	33,262,156	132,923,396
2018	15,937	4,856	20,793	99,215,868	44,958,838	144,174,706
2019	15,332	5,931	21,263	98,827,727	57,612,259	156,439,986
2020	14,719	7,045	21,764	97,417,374	71,743,625	169,160,999
2021	14,107	8,156	22,263	95,939,317	86,433,908	182,373,225
2022	13,486	9,210	22,696	94,772,729	100,892,164	195,664,893
2023	12,871	10,209	23,080	93,379,227	115,121,490	208,500,717

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



SECTION 3: Supplemental Valuation Details for the Los Angeles City Employees' Retirement System Measurement Under GASB 43 and 45 as of June 30, 2013

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

	June 3	June 30, 2013		June 30, 2012	
Contribution income:					
Employer contributions	\$419,266,581		\$423,920,740		
Employee contributions	<u>197,880,631</u>		178,246,151		
Net contribution income		\$617,147,212		\$602,166,891	
Investment income:					
Interest, dividends and other income	\$291,462,597		\$250,580,061		
Recognition of capital appreciation	315,633,471		290,831,650		
Less investment and administrative fees	<u>-37,585,419</u>		-36,599,183		
Net investment income		\$569,510,651		\$504,812,528	
Total income available for benefits		\$1,186,657,863		\$1,106,979,419	
Less benefit payments:					
Payment of benefits	-\$785,308,070		-\$756,062,733		
Refunds of contributions	<u>-17,697,282</u>		-11,100,595		
Net benefit payments		-\$803,005,352		-\$767,163,328	
Change in reserve for future benefits		\$383,652,511		\$339,816,091	

Note: Results may be slightly off due to rounding.



SECTION 3: Supplemental Valuation Details for the Los Angeles City Employees' Retirement System Measurement Under GASB 43 and 45 as of June 30, 2013

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

	June 3	30, 2013	June 3	<b>30, 2012</b>
Cash equivalents		\$606,604,488		\$392,891,992
Accounts receivable:				
Investment income	\$38,025,127		\$34,986,262	
Proceeds from sales	1,688,400,219		57,169,167	
Other	8,321,633		<u>7,590,978</u>	
Total accounts receivable		\$1,734,746,979		\$99,746,407
Investments:				
Fixed Income	\$2,655,956,957		\$2,603,009,587	
Equities	7,078,720,385		5,859,900,968	
Real Estate and Alternative Investment	1,889,238,399		1,835,006,695	
Other	1,158,517,375		933,960,402	
Total investments at market value		\$12,782,433,116		\$11,231,877,652
Total assets		\$15,123,784,583		\$11,724,516,051
Less accounts payable:				
Accounts payable and accrued expenses	-\$56,204,879		-\$39,898,959	
Derivative investment	-18,518		0	
Purchases of investments	-1,989,039,830		-238,732,442	
Security lending collateral	<u>-1,155,982,440</u>		<u>-850,183,665</u>	
Total accounts payable		-\$3,201,245,667		-\$1,128,815,066
Net assets at market value		\$11,922,538,917		\$10,595,700,986
Net assets at actuarial value		<u>\$12,004,110,338</u>		\$11,620,457,827
Net assets at valuation value (retiree health)		\$1,734,733,258		\$1,642,373,560

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 for Year Ended June 30, 2013

1.	Market value of assets				\$11,922,538,917
2.	Calculation of unrecognized return*	Original Amount	Percent Not Recognized	Amount Not Recognized	
	(a) Year ended June 30, 2013 (b) Year ended June 30, 2012 (c) Year ended June 30, 2011 (d) Year ended June 30, 2010 (e) Year ended June 30, 2009 (f) Year ended June 30, 2008 (g) Total unrecognized return	\$683,838,549 -770,325,267 1,208,621,516 392,956,483 -2,964,832,484 -1,549,293,380	85.71% 71.43% 57.14% 42.86% 26.67%** 12.00%**	\$586,147,328 -550,232,334 690,640,866 168,409,921 -790,621,996 -185,915,206	-\$81,571,421
3.	Preliminary actuarial value: (1) - (2g)				\$12,004,110,338
4.	Adjustment to be within 40% corridor				0
5.	Final actuarial value of assets: $(3) + (4)$				<u>\$12,004,110,338</u>
6.	Actuarial value as a percentage of market value: $(5) \div (1)$				100.68%
7.	Market value of retiree health assets				1,722,945,241
8.	Valuation value of retiree health assets $(5) \div (1) \times (7)$				1,734,733,258
9.	Deferred return recognized in each of the next 6 years:				
	<ul> <li>(a) Amount recognized on 6/30/2014</li> <li>(b) Amount recognized on 6/30/2015</li> <li>(c) Amount recognized on 6/30/2016</li> <li>(d) Amount recognized on 6/30/2017</li> <li>(e) Amount recognized on 6/30/2018</li> <li>(f) Amount recognized on 6/30/2019</li> <li>(g) Subtotal (may not total exactly due to rounding)</li> </ul>				-\$364,784,593 -178,869,387 216,441,611 160,304,971 -12,355,246 <u>97,691,221</u> -\$81,571,421

<sup>\*</sup> Total return minus expected return on a market value basis.

<sup>\*\*</sup> These percentages have been calculated by taking the unrecognized returns developed using a 5-year smoothing period through June 30, 2009 and recognizing those amounts over an extended period of an additional 2 years (for a total of 7 years from the original date of the investment gains or losses) starting with the June 30, 2010 valuation.



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, 2012 to June 30, 2013

Recommended Contribution as of June 30, 2012**	5.74%
Effect of decrease in employer normal cost due to payroll and demographic changes	0.02%
Effect of increase in amortization component due to less than expected payroll	0.05%
Effect of contributions less than recommended contribution***	0.14%
Effect of investment loss***	0.05%
Effect of other assumption changes and starting medical costs lower than expected***	-0.13%
Effect of other assumption changes on normal cost	-0.09%
Effect of demographic gains and losses***	0.02%
ecommended Contribution as of June 30, 2013**	5.80%

<sup>\*</sup> Based on contributions at the end of each pay period.



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

SECTION 3: Supplemental Valuation Details for the Los Angeles City Employees' Retirement System Measurement Under GASB 43 and 45 as of June 30, 2013

EXHIBIT I Solvency Test for OPEB

	Aggregate /	Actuarial Accrued L	iabilities For			ortion of Accrued Lia overed by Reported	
Valuation Date	(1) Terminated Members	(2) Retirees, Beneficiaries, & Dependents	(3) Active Members	Valuation Value of Retiree Health Assets	(1) Terminated Members	(2) Retirees, Beneficiaries, & Dependents	(3) Active Members
06/30/2008	\$25,933,078	\$849.872.270	\$1.865.096.157	\$1,342,919,611	100%	100%	25%
06/30/2009	26,181,886	1,118,519,907*	1,723,009,711	1,342,496,524	100	100	11
06/30/2010	34,454,928	1,124,253,854	1,075,165,650	1,425,726,017	100	100	25
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	26,868,636	1,104,832,577	1,280,782,755	1,734,733,258	100	100	47

<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, 2013

### **EXHIBIT I**

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

Valuation date	June 30, 2013			
Actuarial cost method	Entry Age, Cost Method, level percent of sala	ry.		
Amortization method	Level percent of payroll – assuming a 4.25%	increase in total covered payroll.		
Remaining amortization period	Multiple layers. Actuarial gains/losses are amortized over 15 years. Assumption changes resulting from the triennial experience the study are amortized over 30 years. Health trend a premium assumption changes are amortized over 15 years. The initial unfunded liabilities of June 30, 2012 were combined and amortized over 30 years. The costs associated with the 2 ERIP have been amortized over 15 years beginning with the June 30, 2009 valuation date. I changes, including the liability change due to the ERIP is amortized over 15 years. Future Ewill be amortized over 5 years. Actuarial surplus is amortized over 30 years.			
Asset valuation method	Market value of assets less unrecognized return	rns.		
	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.			
	In addition, the actuarial value of assets is further adjusted, if necessary, to stay within 40% of the market value of assets.			
Actuarial assumptions:				
Investment rate of return	7.75%			
Inflation rate	3.50%			
Real across-the-board salary increase	0.75%			
Projected salary increases	N/A			
Medical cost trend rate	Actual increase for 2013-2014, 7.75% starting 0.50% per year over 6 years to an ultimate rat	g in the 2014-2015 fiscal year graded down by e of 5.00%		
Dental cost trend rate	5.00%			
Medicare Part B premium	5.00%			
Plan membership:	June 30, 2013	June 30, 2012		
Current retirees, beneficiaries, and dependents receiving benefits	18,242	18,102		
Current active participants	24,441	24,917		
Terminated participants entitled but not yet eligible	<u>861</u>	<u>858</u>		
Total	43,544	43,877		



SECTION 4: Supporting Information for the Los Angeles City Employees' Retirement System Measurement Under GASB 43 and 45 as of June 30, 2013

#### **EXHIBIT II**

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

**Data**: Detailed census data and financial data for postemployment benefits were provided

by LACERS.

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

specified, members are assumed to be male.

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

**Termination Rates before** 

**Retirement:** 

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

Rate (%)

	· ,	
Age	Disability	Termination*
25	0.01	5.50
30	0.03	5.35
35	0.05	4.35
40	0.09	3.15
45	0.15	2.30
50	0.19	1.85
55	0.20	1.75
60	0.20	1.75

All deaths are assumed to be non-duty related.

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

Rate (%)

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



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

SECTION 4: Supporting Information for the Los Angeles City Employees' Retirement System Measurement Under GASB 43 and 45 as of June 30, 2013

Measurement Date: June 30, 2013

**Discount Rate:** 7.75%, net of investment and administrative expenses

**Postretirement Mortality Rates:** 

Healthy RP-2000 Combined Healthy Mortality Table, set back 2 years for males and set back

one year for females.

Disabled RP-2000 Combined Healthy Mortality Table, set forward 5 years for males and set

forward 6 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.

Retirement Rates: Rate (%)

	Tier	1	Tier	55/30			
_			-				
Age	Non-55/30	55/30	Non-55/30	55/30			
50	8.0	0.0	0.0	0.0			
51	4.0	0.0	0.0	0.0			
52	4.0	0.0	0.0	0.0			
53	4.0	0.0	0.0	0.0			
54	15.0	0.0	0.0	0.0			
55	8.0	20.0	3.5	8.0			
56	8.0	15.0	3.5	7.0			
57	8.0	15.0	3.5	7.0			
58	8.0	15.0	3.5	7.0			
59	8.0	15.0	3.5	7.0			
60	8.0	15.0	5.5	7.0			
61	8.0	16.0	5.5	9.0			
62	8.0	17.0	5.5	11.0			
63	8.0	18.0	5.5	13.0			
64	8.0	19.0	5.5	16.0			
65	13.0	20.0	12.0	19.0			
66	13.0	20.0	12.0	19.0			
67	13.0	20.0	12.0	19.0			
68	13.0	20.0	12.0	19.0			
69	13.0	20.0	12.0	19.0			
70	100.0	100.0	100.0	100.0			

SECTION 4: Supporting Information for the Los Angeles City Employees' Retirement System Measurement Under GASB 43 and 45 as of June 30, 2013

**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.

Retirement Age and Benefit for Inactive Vested Participants:

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

**Exclusion of Inactive Vested:** 

Inactive vested with less than 10 years of service are excluded.



SECTION 4: Supporting Information for the Los Angeles City Employees' Retirement System Measurement Under GASB 43 and 45 as of June 30, 2013

### **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)

		Monthly 2013-2014 Fiscal
<u>Carrier</u>	Participation Percent	Year Subsidy
Met Lif PPO	e 77.4	\$42.80
SafeGuard	22.6	\$13.53



SECTION 4: Supporting Information for the Los Angeles City Employees' Retirement System Measurement Under GASB 43 and 45 as of June 30, 2013

Per Capita Cost Development – Tier 1, Not Subject to Medical Subsidy Freeze:

Participant Under Age 65 or Not Eligible for Medicare A & B

2013-2014 Fiscal Year			Single Party		Married/With 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 HMO	61.3	\$705.78	\$1,415.50	\$705.78	\$1,411.55	\$1,415.50	\$1,411.55	\$705.78	\$705.78	\$705.78
Blue Cross PPO	21.7	\$1,100.85	\$1,415.50	\$1,100.85	\$2,196.88	\$1,415.50	\$1,415.50	\$1,100.85	\$705.78	\$705.78
Blue Cross HMO	17.0	\$802.74	\$1,415.50	\$802.74	\$1,600.66	\$1,415.50	\$1,415.50	\$802.74	\$705.78	\$705.78

### Participant Eligible for Medicare A & B

<b>2013-2014 Fiscal Year</b>			Single Party		Married/With 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 HMO	57.9	\$219.59	\$219.59	\$219.59	\$439.18	\$439.18	\$439.18	\$219.59	\$219.59	\$219.59
Blue Cross LPPO	30.0	\$473.34	\$473.34	\$473.34	\$941.85	\$787.99	\$787.99	\$473.34	\$473.34	\$473.34
UHC Medicare Adv HMO	12.1	\$243.11	\$243.11	\$243.11	\$481.40	\$481.40	\$481.40	\$243.11	\$243.11	\$243.11

<sup>\*</sup> With the exception of Kaiser, the amounts reflect the inclusion of the Vision Service Plan premium.

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	\$595.60
Over 65			
Kaiser HMO	\$203.27	\$406.54	\$203.27
Blue Cross LPPO	\$480.40	\$678.77	\$480.41
UHC Medicare Adv HMO	\$219.09	\$433.93	\$219.09

The retiree health subsidy for Tier 2 members is based on single party coverage. Note that the assumptions used to develop the Tier 2 contribution rates were based on the June 30, 2012 valuation, as described in our Tier 2 study dated April 4, 2013.



SECTION 4: Supporting Information for the Los Angeles City Employees' Retirement System Measurement Under GASB 43 and 45 as of June 30, 2013

**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.



SECTION 4: Supporting Information for the Los Angeles City Employees' Retirement System Measurement Under GASB 43 and 45 as of June 30, 2013

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

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

Trend is to be applied to premium for shown fiscal year to calculate next fiscal year's projected premium First Fiscal Year (July 1, 2013 through June 30, 2014)

PLAN	Blue Cross PPO, Under Age 65	Blue Cross LPPO, Age 65 and Over	Kaiser HMO, Under Age 65	Senior Advantage	Blue Cross HMO, Under 65	UHC Medicare Adv. HMO
Trend to be applied to 2013- 2014 Fiscal Year premium	7.50%	8.48%	7.54%	6.69%	9.75%	4.23%
			The fiscal year to		based on the f	ollowing
Fiscal Year	Trend (	Approx.)	Calendar Year		ied to calculate ear premium)	_
2014-2015	7.7	75%	2014		8.00%	
2015-2016	7.2	25%	2015		7.50%	
2016-2017	6.7	75%	2016		7.00%	
2017-2018	6.2	25%	2017		6.50%	
2018-2019	5.7	75%	2018		6.00%	
2019-2020	5.2	25%	2019		5.50%	
2020 and later	5.0	00%	2020 and later		5.00%	
D . 1D		5 000/ C 11	•			

**Dental Premium Trend** 

5.00% for all years

Medicare Part B Premium Trend

5.00% for all years



<sup>\*</sup> We understand that the premiums shown in this section, as provided to us by LACERS for calendar year 2014, do include any fees imposed by the Patient Protection an Affordable Care Act (PPACA) effective in calendar year 2014. Therefore, the per capita health care costs and the trend rates that we recommended for the June 30, 2013 valuation do not have to be adjusted to reflect such fees.

#### **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 Patient Protection and Affordable Care Act (PPACA), and the Health Care and Education Reconciliation Act (HCERA), which were signed into law in March of 2010. We understand that FASB requires the disclosure of the tax liability for single employer and non-governmental plans. GASB has not yet offered any guidance on how to comply with this legislation for disclosure purposes and they do not always follow the FASB lead.

In particular, it is our understanding that beginning in 2018, the legislation will impose a 40 percent excise tax on the cost of health plans above a certain threshold. It is our further understanding that the thresholds in 2018 for non-Medicare retirees aged 55 through 64 are \$11,850 for single coverage and \$30,950 for family coverage as specified in the Health Care Reform. For all other retirees the thresholds in 2018 are \$10,200 for single coverage and \$27,500 for family coverage. PPACA allows the higher thresholds also to be used for any member "who participates in a plan sponsored by an employer the majority of whose employees covered by the plan are engaged in a high-risk profession or employed to repair or install electrical or telecommunication lines."

The thresholds in 2019 are indexed and for the purpose of this valuation, they are assumed to increase by 4.50% (i.e., 1% over the assumed 3.5% CPI assumption used in the retirement valuation) over those in 2018. After 2019, the thresholds are assumed to increase by 3.50% (assumed CPI inflation) per year.

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.



#### **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 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.

**Benefit Eligibility:** 

(§4.1103.2)

Retirees 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 (§4.1103.2):

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

Tier1 The S

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, 2013, the maximum health subsidy was \$1,367 per month, and

will increase to \$1,464 on January 1, 2014.

Tier 2 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, 2013, the maximum health subsidy was \$682 per month and will increase to \$730 on



January 1, 2014. None of the subsidy can be applied toward coverage for dependents of Tier 2 retirees<sup>1</sup>.

Over Age 65 and Enrolled in Both Medicare Parts A and B Tier 1 and Tier 2:

For retirees, a maximum health subsidy limited to the single-party monthly §4.1103.2 premium of the plan in which the member is enrolled, is provided subject to the following vesting schedule:

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

### **Dependents**

Tier 1

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

Tier 2

None of the subsidy may be applied toward coverage for dependents of Tier 2 retirees.

### **Dental Subsidy for Members:**

(§4.1105.2)

Tier 1

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, 2013, the maximum dental subsidy was \$42.80 per month and will remain at \$42.80 beginning January 1, 2014.

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

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,

<sup>&</sup>lt;sup>1</sup> Note that the plan provisions used to develop the Tier 2 contribution rates shown in this report were based on the June 30, 2012 valuation, as described in our Tier 2 study, dated April 4, 2013.



2013, the maximum dental subsidy was \$42.80 per month and will remain at \$42.80

beginning January 1, 2014.

Medicare Part B Subsidy for Members

(§4.1104) Tiers 1 & 2:

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 Part B

Medicare premium.

**Surviving Spouse Subsidy** 

(§4.1107 & §4.1107.1)

*Tier 1:* 

The surviving spouse or domestic partner will be entitled to a health subsidy (limited to the actual single-party premium) based on 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 (\$681.72 per month as of July 1, 2013, increasing to \$729.83 on January 1, 2014) or the single-party premium of the plan in which the survivor is

enrolled, whichever is less.



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

**Surviving Spouse Subsidy For Tier 2:** 

101 1101 2.

No medical plan premium subsidy shall be provided to the survivor of Tier 2 members of retirees.

**Subsidy Freeze:** 

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.



#### **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.

SECTION 4: Supporting Information for the Los Angeles City Employees' Retirement System June 30, 2013
Measurement Under GASB 43 and 45

#### **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 post employment 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 unlessthose 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. Exhibits IV and VI of Section 4 contain 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



## SECTION 4: Supporting Information for the Los Angeles City Employees' Retirement System June 30, 2013 Measurement Under GASB 43 and 45

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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November 7, 2013

Board of Administration Los Angeles City Employees' Retirement System 202 West First Street, Suite 500 Los Angeles, CA 90012-4401

Re: Los Angeles City Employees' Retirement System FDBP Costs as of June 30, 2013

**Dear Board Members:** 

We have developed our recommended contribution rates for the voluntary Family Death Benefit Plan ("Plan") as of June 30, 2013. These rates are effective for the two plan years beginning July 1, 2014 and ending June 30, 2016. The last review of the Plan was conducted as part of the June 30, 2011 actuarial valuation. That study yielded the current employee monthly contribution rate of \$3.70. The City matches the employees' cost at the same level.

#### RECOMMENDATIONS

Based on the census data and the actuarial assumptions used for the June 30, 2013 actuarial valuation, our observations and recommendations are as follows:

- > The current employee monthly rate is \$3.70 through the end of the current plan year (June 30, 2014). Based on this rate, the estimated total annual contributions would be about \$320,000 (\$160,000 each for the members and the City) for plan year 2013/2014.
- > It is our understanding that the earnings credited to the Family Death Benefits Reserve include realized and unrealized gains or losses. Therefore, the crediting procedure for the Family Death Benefits Reserve is in line with the procedure utilized for the retirement plan reserves (with the exception of the Reserve for Member Contributions). Since the future payment liability for this program has been discounted at the valuation assumed earnings rate of 7.75% per year for this valuation, we believe the crediting procedure is consistent with the valuation discount rate assumption.

Board of Administration Los Angeles City Employees' Retirement System November 7, 2013 Page 2

- > The plan does not currently have a funding policy on how the monthly premium rate should be adjusted to reflect any funding surplus. We recommend that the Board consider developing a surplus policy for this Plan.
- > In the interim and before the adoption of a formal funding policy, we recommend that the current employee monthly rate of \$3.70 be maintained for the two plan years beginning July 1, 2014 and ending June 30, 2016.

### **ANALYSIS AND ASSUMPTIONS**

It is our understanding that the Plan is funded on a term cost basis and the premium charged for the current year is only supposed to be sufficient to pay for the present value of the projected death benefits for those expected to die in the same period. However, there is an adjustment in the monthly premium based on the Plan's funded status to reflect the relative value of the actual plan reserve compared to the actual present value of death benefits in pay status for those who previously died. As of June 30, 2013, the Plan's term cost is \$428,025 for the 3,605 active members participating at June 30, 2013. This translates to an employee and City monthly rate of \$4.95 each. However, the Plan is in a surplus position as of June 30, 2013, with the Plan's actuarial value of assets of \$14,456,893\(^1\) exceeding the liability reserve of \$8,453,914 by \$6,002,979.

We anticipate that the surplus reserve of \$6,002,979 will be sufficient to maintain the current monthly premium rates of \$3.70 for the employee and the City for the two plan years beginning July 1, 2014. As surplus is depleted at the rate of about \$108,000 per year, there would still be a positive residual surplus remaining from the June 30, 2013 surplus balance of \$6,002,979, at June 30, 2016.

As noted, all of the calculations are based on the June 30, 2013 actuarial valuation participant data and actuarial assumptions shown in the retirement plan valuation report. In addition, this plan requires further assumptions as shown below:

- 1) Each participating active member is assumed to have two children with an average age of about 13.
- 2) The children are assumed to be eligible for a monthly benefit of about \$938 each until they reach age 18.
- 3) A surviving spouse is assumed to be eligible for a monthly benefit of about \$312 until the children reach age 16.

<sup>&</sup>lt;sup>1</sup> If the Plan's June 30, 2013 market value of assets of \$14,358,654 were to be used in the above analysis, the Plan would have a surplus of \$5,904,740 instead of \$6,002,979.

Board of Administration Los Angeles City Employees' Retirement System November 7, 2013 Page 3

- A surviving spouse of a member who has paid FDBP premiums for 10 or more years is assumed to be eligible for an additional monthly benefit of about \$613 starting at age 60<sup>2</sup>.
- As previously discussed with LACERS, survivors may not receive benefits from the FDBP if they receive a service retirement survivorship benefit from the pension plan. Therefore, those FDBP participants who are currently eligible to retire under the pension plan do not have an FDBP liability in our valuation even though it is assumed that they would continue to pay premiums to the FDBP.

The above costs were certified by Andy Yeung, ASA, Enrolled Actuary.

Sincerely,

Paul Angelo, FSA, MAAA, FCA, EA

Senior Vice President and Actuary

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

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<sup>&</sup>lt;sup>2</sup> Larger amounts are available if the surviving spouse begins receiving payments after age 60.



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November 7, 2013

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: The Los Angeles City Employees' Retirement System
FY 2014-2015 Retirement and Health Plan Contributions
with Adjustments to Reflect Five-Year Phase-in of City Contribution Rates

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 2014-2015 are contained in Segal's June 30, 2013 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 2014-2015 (i.e., the third year of the phase-in) and an analysis of the financial reporting and future contribution rate impact of the five-year phase-in.

#### PHASE-IN CONTRIBUTION RATES FOR 2014-2015

Table A below shows the <u>full impact</u> 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.

Mr. Tom Moutes November 7, 2013 Page 2

Table A

Table 11						
Impact of the New						
Actuarial Assumptions (percentage of payroll):						
Beginning of Year	<u>July 15</u>	End of Pay Periods				
1.20%	1.21%	1.23%				
<u>0.18%</u>	0.18%	0.19%				
1.38%	1.39%	1.42%				
	Actuarial Assur  Beginning of Year  1.20%  0.18%	Actuarial Assumptions (percentage)           Beginning of Year         July 15           1.20%         1.21%           0.18%         0.18%				

The decreases in the contribution rates for the third year of the phase-in are simply 40% of the rates shown in Table A. The adjustments to the contribution rates as provided in the June 30, 2013 reports are shown below in Table B.

Table B						
Third-Year Deferred Portion of the Impact of the						
Plan:	New Actuarial As	centage of payroll):				
	Beginning of Year	<u>July 15</u>	End of Pay Periods			
Retirement	0.48%	0.48%	0.49%			
Health	0.07%	0.07%	0.08%			
Total	0.55%	0.55%	0.57%			

The phased-in City contribution rates for 2014-2015 are provided in Table D. For your convenience, we have also provided in Table C the City contribution rates for 2014-2015 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 2014-2015, Before Reflecting Five-Year Phase-In of the Impact of the New Actuarial Assumptions (percentage of payroll):				
Plan:					
	Beginning of Year	<u>July 15</u>	End of Pay Periods		
<u>Tier 1</u>					
Retirement	21.43%	21.50%	22.24%		
Health	<u>5.59%</u>	<u>5.61%</u>	<u>5.80%</u>		
Total	27.02%	27.11%	28.04%		
Tier 2					
Retirement	15.73%	15.77%	16.33%		
Health	4.40%	4.41%	<u>4.56%</u>		
Total	20.13%	20.18%	20.89%		

Mr. Tom Moutes November 7, 2013 Page 3

Table D

City Contribution Rates for 2014-2015,

After Reflecting Five-Year Phase-In of the Impact of the New Actuarial Assumptions (percentage of payroll):

Plan:	New Actuarial Assumptions (percentage of payroll):			
	Beginning of Year	<u>July 15</u>	End of Pay Periods	
<u>Tier 1</u>				
Retirement	20.95%	21.02%	21.75%	
Health	<u>5.52%</u>	<u>5.54%</u>	<u>5.72%</u>	
Total	26.47%	26.56%	27.47%	
<u>Tier 2</u>				
Retirement	15.25%	15.29%	15.84%	
Health	<u>4.33%</u>	<u>4.34%</u>	<u>4.48%</u>	
Total	19.58%	19.63%	20.32%	

### IMPACT OF FIVE-YEAR PHASE-IN ON FINANCIAL REPORTING

Both the retirement plan and the health plan contribution rates recommended in Segal's June 30, 2013 actuarial valuation reports satisfy the parameters required for determining the Annual Required Contribution (ARC) under Governmental Accounting Standards 25/27 and 43/45 for the 2014-2015 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. 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 both the retirement and health plans, the ESAP is still shorter than 30 years even after the phase-in. This means that contributing the phase-in rates for Fiscal Year 2014-2015 will <u>not</u> result in the City recording a liability either for the retirement plan (Net Pension Obligation or "NPO") or for the health plan (Net OPEB Obligation or "NOO").

If you have any questions, please let us know.

Sincerely,

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

Andy Years

DNA/bqb