Los Angeles City Employees' Retirement System

Actuarial Valuation and Review of Retirement and Health Benefits as of June 30, 2015

Segal Consulting

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.

Segal Consulting

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October 30, 2015

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

Re: June 30, 2015 Actuarial Valuations

Dear Board Members:

Enclosed please find the June 30, 2015 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.[1]
- Exhibit D - Schedule of retirees and beneficiaries added to and removed from the rolls for the retirement plan.[2]

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 Actuary

DNA/gxk

5382329v3/05806.002

[1] For the health plan, a similar schedule is provided in Exhibit I of the health valuation report.

[2] 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, 2015	June 30, 2014	Percent Change
I.	**Total Membership**			
	A. Active Members	23,895	24,009	-0.5%
	B. Pensioners and Beneficiaries	17,932	17,532	2.3%
II.	**Valuation Salary**			
	A. Total Annual Payroll	$1,907,664,598	$1,898,064,175	0.5%
	B. Average Monthly Salary	6,653	6,588	1.0%
III.	**Benefits to Current Retirees and Beneficiaries**(1)			
	A. Total Annual Benefits	$750,391,750	$716,556,070	4.7%
	B. Average Monthly Benefit Amount	3,487	3,406	2.4%
IV.	**Total System Assets**(2)			
	A. Actuarial Value	$13,895,589,227	$12,935,503,398	7.4%
	B. Market Value	14,124,760,375	13,935,771,998	1.4%
V.	**Unfunded Actuarial Accrued Liability (UAAL)**			
	A. Retirement Benefits	$5,182,935,002	$5,304,102,525	-2.3%
	B. Health Subsidy Benefits	538,064,716	721,628,343	-25.4%

(1) *Includes July COLA.*

(2) *Includes assets for Retirement, Health, Family Death, and Larger Annuity Benefits.*

Exhibit A (continued)

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

VI.	Budget Items (as a Percent of Pay)	FY 2016-2017		FY 2015-2016**		Difference	
		Beginning of Year*	July 15	Beginning of Year	July 15	Beginning of Year	July 15
	A. Retirement Benefits (Tier 1 and Tier 2 Combined)						
	1. Normal Cost	6.42%	6.44%	6.56%	6.58%	(0.14)%	(0.14)%
	2. Amortization of UAAL	16.39%	16.44%	16.63%	16.68%	(0.24)%	(0.24)%
	3. Total Retirement Contribution	22.81%	22.88%	23.19%	23.26%	(0.38)%	(0.38)%
	B. Health Subsidy Contribution (Tier 1 and Tier 2 Combined)						
	1. Normal Cost	3.27%	3.28%	3.43%	3.44%	(0.16)%	(0.16)%
	2. Amortization of UAAL	1.46%	1.46%	2.17%	2.18%	(0.71)%	(0.72)%
	3. Total Health Subsidy Contribution	4.73%	4.74%	5.60%	5.62%	(0.87)%	(0.88)%
	C. Total Contribution (A + B)	27.54%	27.62%	28.79%	28.88%	(1.25)%	(1.26)%

VII.	Funded Ratio	June 30, 2015	June 30, 2014	Difference
	(Based on Valuation Value of Assets)			
	A. Retirement Benefits	69.4%	67.4%	2.0%
	B. Health Subsidy Benefits	79.7%	72.9%	6.8%
	C. Total	70.7%	68.1%	2.6%
	(Based on Market Value of Assets)			
	D. Retirement Benefits	70.5%	72.6%	(2.1)%
	E. Health Subsidy Benefits	81.0%	78.5%	2.5%
	F. Total	71.9%	73.4%	(1.5)%

* *Alternative contribution payment date for FY 2016-2017:*

	Retirement	*Health*	*Total*
End of Pay Periods	*23.65%*	*4.90%*	*28.55%*

** *Before adjustments to phase in over five years the impact of new actuarial assumptions (as a result of the June 30, 2011 Triennial Experience Study) on the City's contributions. For Fiscal Year 2015-2016 contribution rates after the phase-in adjustments, refer to our letter dated November 24, 2014. Note that the adjustments no longer apply after Fiscal Year 2015-2016.*

Exhibit B

Los Angeles City Employees' Retirement System
Computed Contribution Rates[1] – Historical Comparison

Valuation Date	Retirement	Health	Total	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[2]				
Before Additional Employee Contributions	24.31%	4.49%	28.80%	1,833,392
After Additional Employee Contributions	21.64%	4.49%	26.13%	1,833,392
06/30/2012[3]	21.34%	5.74%	27.08%	1,819,270
06/30/2013	22.24%	5.80%	28.04%	1,846,970
06/30/2014	24.05%	5.81%	29.86%	1,898,064
06/30/2015	23.65%	4.90%	28.55%	1,907,665

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

(2) *Beginning with the 6/30/2011 valuation date, the contribution rates are before 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. Those adjustments no longer apply after the June 30, 2014 valuation.*

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

Exhibit C

Los Angeles City Employees' Retirement System

Solvency Test for Retirement Benefits
For Years Ended June 30

($ In Thousands)

	Aggregate Actuarial Accrued Liabilities For				Portion of Accrued Liabilities Covered by Reported Assets		
	(1)	(2)	(3)		(1)	(2)	(3)
Valuation Date	Member Contributions	Retirees, Beneficiaries, & Inactives	Active Members	Valuation Value of Assets	Member Contributions	Retirees, Beneficiaries, & Inactives	Active Members
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
06/30/2014	1,900,068	8,700,896	5,647,889	10,944,751	100.0	100.0	6.1
06/30/2015	2,012,378	9,118,166	5,779,452	11,727,161	100.0	100.0	10.3

** 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 Ended	No. of New Retirees/ Beneficiaries	Annual Allowances Added**	No. of Retirees/ Beneficiaries Removed	Annual Allowances Removed	No. of Retirees/ Beneficiaries at 6/30	Annual Allowances at 6/30	Percent Increase in Annual Allowances	Average Annual Allowance
06/30/2002	844	$23,740,829	620	$11,316,344	13,589	$336,437,038	6.4%	$24,758
06/30/2003	827	24,729,535	611	12,008,132	13,805	359,036,215	6.7%	26,008
06/30/2004	986	53,452,133	654	13,220,316	14,137	399,268,032	11.2%	28,243
06/30/2005	934	43,454,836	749	14,769,736	14,322	427,953,132	7.2%	29,881
06/30/2006	890	42,821,079	642	15,061,287	14,570	455,712,924	6.5%	31,277
06/30/2007	821	34,131,744	555	13,210,740	14,836	476,633,928	4.6%	32,127
06/30/2008	748	40,680,279	609	14,956,623	14,975	502,357,584	5.4%	33,546
06/30/2009	632	36,887,854	616	17,386,042	14,991	521,859,396	3.9%	34,812
06/30/2010	2,893	144,594,918	620	17,604,486	17,264	648,849,828	24.3%	37,584
06/30/2011	528	24,282,965	595	16,585,589	17,197	656,547,204	1.2%	38,178
06/30/2012	620	38,314,256	594	17,986,700	17,223	676,874,760	3.1%	39,301
06/30/2013	772	40,966,952	633	18,776,770	17,362	699,064,942	3.3%	40,264
06/30/2014	831	38,666,905	661	21,175,777	17,532	716,556,070	2.5%	40,871
06/30/2015	1,083	55,849,106	683	22,013,426	17,932	750,391,750	4.7%	41,847

* *Does not include Family Death Benefit Plan members. Table based on valuation data.*

** *Effective 06/30/2004, also includes the COLA granted in July.*

Segal Consulting

Los Angeles City Employees' Retirement System

Actuarial Valuation and Review of Retirement Benefits as of June 30, 2015

Segal Consulting

100 MONTGOMERY STREET, SUITE 500 SAN FRANCISCO, CA 94104
T 415.263.8200 www.segalco.com

October 30, 2015

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

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of June 30, 2015. It summarizes the actuarial data used in the valuation, establishes the funding requirements for fiscal 2016/2017 and analyzes the preceding year's experience.

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

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

The actuarial calculations were completed under the supervision of Andy Yeung, ASA, MAAA, FCA, Enrolled Actuary. We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in 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.

By:

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

JRC/hy

SECTION 1

VALUATION SUMMARY

SECTION 2

VALUATION RESULTS

SECTION 3

SUPPLEMENTAL INFORMATION

SECTION 4

REPORTING INFORMATION

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, 2015. 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, 2015, provided by LACERS;
- The assets of the Plan as of June 30, 2015, 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:

- 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 Los Angeles Administrative Code, were reported by LACERS as Tier 2 members in this valuation. We were informed, however, that the introduction of the new Tier 2 was legally challenged by the labor groups. Based on a report dated October 23, 2015 from the City Administrative Officer to the Mayor, we understand that the City and the labor groups have entered into an agreement to dismiss the legal challenge by rescinding Tier 2 and adopting an ordinance to enroll new hires in a new Tier 3. As part of the agreement, all Tier 2 members will be transferred to Tier 1.

  As of the issuance date of this valuation report, the provisions of Tier 3 have not yet been determined, and the Tier 2 employees have not yet been transferred to Tier 1. We would assist the Board in determining the funding requirements caused by these events in a separate report as soon as we are directed to do so by LACERS.

Ref: Pgs. 16 and 26

- The ratio of the valuation value of assets to actuarial accrued liabilities increased from 67.36% to 69.35%. On a market value of assets basis, the funded ratio decreased from 72.57% to 70.49%. The unfunded actuarial accrued liability decreased from $5.304 billion to $5.183 billion. Note that in the June 30, 2015 valuation, we requested for current retirees the amount of accumulated member contributions at retirement and an indication if the retiree chose a cash refund or a life annuity form of payment under the continuance option chosen[1], in order to refine our procedure for valuing liabilities under those two forms of payment for current and future retirees. This refinement in procedure increased the actuarial accrued liability by about $89 million; however, that liability increase is entirely mitigated by about $275 million in other net actuarial gains in this valuation. These other net actuarial gains include gains from (i) higher than expected return on the valuation value of assets (after smoothing), (ii) lower than expected salary increases for continuing active members, and (iii) lower than expected COLAs granted to retirees and beneficiaries, offset somewhat by (iv) other actuarial losses. A complete reconciliation of the System's unfunded actuarial accrued liability is provided in Section 3, Exhibit G.

Ref: Pg. 14

- The aggregate employer rate (payable at the end of each pay period) calculated in this valuation has decreased from 24.05% of payroll to 23.65% of payroll. The annual dollar employer contributions calculated in this valuation decreased from about $456.4 million to $451.2 million. The decrease was due to: (i) a decrease in the normal cost rate due, in part, to the enrollment of new employees in Tier 2[2], (ii) higher than expected return on the valuation value of assets (after smoothing), (iii) lower than expected salary increases for continuing active members, and (iv) lower than expected COLAs granted to retirees and beneficiaries, offset somewhat by (v) the effect of the anticipated one-year delay in implementing the higher contribution rate calculated in the prior valuation, (vi) amortizing the prior year's UAAL over a smaller than expected projected total payroll, (vii) the effect of the refinement in the procedure to reflect the cash refund versus life annuity form of payment, and (viii) other actuarial losses. 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 contribution rates for Fiscal Year 2016-2017 (the last year of the phase-in) are contained in this report and do not reflect any adjustments for the phase-in, as those adjustments no longer apply.

  On October 14, 2014, as part of the Board's deliberations on the actuarial assumptions for use starting with the June 30, 2014 valuation (adopted as a result of the June 30, 2014 Triennial Experience Study), the Board also discussed the possibility of phasing in the cost impact of the new actuarial assumptions on the City's retirement and health plan

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[1] *For members electing a cash refund form of payment, any unused contributions will be refunded to the retiree's designated beneficiary upon the death of the member and/or continuance beneficiary, if any. For members electing a life annuity form of payment, the member will receive an increased retirement allowance under this form, and any unused contributions will be forfeited to LACERS upon the death of the member and/or continuance beneficiary, if any.*

[2] *Excluding the effect of the refinement in the procedure to reflect the cash refund versus life annuity form of payment, which is referenced in item (vii).*

contributions over three alternative phase-in periods. Based on subsequent discussions, the City chose not to request any phase-in.

Ref: Pg. 5

- As indicated in Section 2, Subsection B of this report, the total unrecognized investment gain as of June 30, 2015 is $229,171,148[3] for the assets for Retirement, Health, Family Death, and Larger Annuity Benefits. This investment gain will be recognized in the determination of the actuarial value of assets for funding purposes in the next several years. This implies that earning the assumed rate of investment return of 7.50% per year (net of investment and administrative expenses) on a market value basis will result in net investment gains on the actuarial value of assets after June 30, 2015. Item 9 in Chart 7 shows how, under the asset smoothing method, the $229.2 million in unrecognized gains will be recognized in the next six years.

  The deferred gains of $229.2 million represent 1.6% of the market value of assets as of June 30, 2015. Unless offset by future investment losses or other unfavorable experience, the recognition of the $229.2 million market gains is expected to have an impact on the System's future funded percentage and contribution rate requirements. This potential impact may be illustrated as follows:

  - If the retirement plan component of the deferred gains were recognized immediately in the valuation value of assets, the funded percentage would increase from 69.35% to 70.49%.
  - If the retirement plan component of the deferred gains were recognized immediately in the valuation value of assets, the aggregate employer rate (payable at the end of each pay period) would decrease from 23.65% to about 22.8% of payroll.

- As in prior years, the employer contribution rates 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, 2016, or

  (3) Throughout the year (i.e., the City will pay contributions at the end of every pay period).

Ref: Pg. 27

- Carrying over the prior instructions from the Board of Administration, the recommended contribution is set equal to the greater of the current funding policy or the minimum Annual Required Contribution (ARC) as determined by the then current GASB Statements 25 and 27. In particular, we have also continued to include in the calculation of the

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[3] *For comparison purposes, the total unrecognized investment gain as of June 20, 2014 was $1,000,268,600.*

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.

- Consistent with our recommendation since the inception of Tier 2, even though the City will be paying UAAL contributions based on the Tier 2 payroll, the contributions should be maintained on a bookkeeping basis as contributions made to the Tier 1 plan. We believe this treatment is reasonable even though some of those contributions may be allocated to pay off 50% of the UAAL that the City is required to pay to the Tier 2 plan. However, we are not recommending that allocation at this time because Segal Consulting would need to work with LACERS to determine the procedure required to ensure that none of those contributions would inadvertently affect the calculation that we would perform in the June 30, 2016 valuation when the Tier 2 members are required for the first time to pay the other 50% of the UAAL starting on July 1, 2017.
- The actuarial valuation report as of June 30, 2015 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.

Summary of Key Valuation Results

	2015	2014
Contributions calculated as of June 30:[1]		
Recommended as a percentage of pay (there is a 12-month delay until the rate is effective)		
Tier 1		
At the beginning of the year	23.14%	23.32%
On July 15	23.21%	23.39%
At the end of each pay period	23.99%	24.18%
Tier 2		
At the beginning of the year	17.90%	18.07%
On July 15	17.96%	18.12%
At the end of each pay period	18.57%	18.74%
Combined		
At the beginning of the year	22.81%	23.19%
On July 15	22.88%	23.26%
At the end of each pay period	23.65%	24.05%
Funding elements for plan year ended June 30:		
Normal cost	$322,574,274	$322,380,251
Market value of assets (MVA)[2]	14,124,760,375	13,935,771,998
Actuarial value of assets (AVA)[2]	13,895,589,227	12,935,503,398
Valuation value of retirement assets (VVA)	11,727,161,378	10,944,750,574
Market value of retirement assets (MVA)	11,920,570,019	11,791,079,473
Actuarial accrued liability (AAL)	16,909,996,380	16,248,853,099
Unfunded actuarial accrued liability (UAAL) on VVA basis	5,182,835,002	5,304,102,525
Unfunded actuarial accrued liability (UAAL) on MVA basis	4,989,426,361	4,457,773,626
Funded ratio on VVA basis for retirement (VVA/AAL)	69.35%	67.36%
Funded ratio on MVA basis for retirement (MVA/AAL)	70.49%	72.57%
Employer contributions for fiscal year ended June 30:		
Actuarially determined employer contributions	$381,140,923	$357,649,232
Actual contributions	381,140,923	357,649,232
Percentage contributed	100.00%	100.00%

(1) *The June 30, 2014 contribution rates are before 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. Those adjustments no longer apply after the June 30, 2014 valuation.*

(2) *Includes assets for Retirement, Health, Family Death, and Larger Annuity Benefits.*

Summary of Key Valuation Results (continued)

	2015	2014
Demographic data for plan year ended June 30:		
Number of retired members and beneficiaries	17,932	17,532
Number of inactive members	6,507	6,031
Number of active members	23,895	24,009
Projected total payroll(3)	$1,907,664,598	$1,898,064,175
Projected average payroll(3)	$79,835	$79,056

(3) *Reflects annualized salaries for part-time members.*

Important Information about Actuarial Valuations

In order to prepare an actuarial valuation, Segal Consulting ("Segal") relies on a number of input items. These include:

- **Plan of benefits** Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan description in this report to confirm that Segal has correctly interpreted the plan of benefits.
- **Participant data** An actuarial valuation for a plan is based on data provided to the actuary by the Retirement Office. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
- **Assets** This valuation is based on the market value of assets as of the valuation date, as provided by the Retirement Office.
- **Actuarial assumptions** In preparing an actuarial valuation, Segal projects the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This projection requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year. In addition, the benefits projected to be paid for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments. The projected benefits are then discounted to a present value, based on the assumed rate of return that is expected to be achieved on the plan's assets. There is a reasonable range for each assumption used in the projection and the results may vary materially based on which assumptions are selected. It is important for any user of an actuarial valuation to understand this concept. Actuarial assumptions are periodically reviewed to ensure that future valuations reflect emerging plan experience. While future changes in actuarial assumptions may have a significant impact on the reported results, that does not mean that the previous assumptions were unreasonable.

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

- The valuation is prepared at the request of LACERS. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial valuation is a measurement of the plan's assets and liabilities at a specific date. Accordingly, except where otherwise noted, Segal did not perform an analysis of the potential range of future financial measures. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

- If LACERS is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.
- Segal does not provide investment, legal, accounting, or tax advice. Segal’s valuation is based on our understanding of applicable guidance in these areas and of the plan’s provisions, but they may be subject to alternative interpretations. LACERS should look to their other advisors for expertise in these areas.

As Segal Consulting has no discretionary authority with respect to the management or assets of LACERS, it is not a fiduciary in its capacity as actuaries and consultants with respect to LACERS.

Actuarial Certification

October 30, 2015

This is to certify that Segal Consulting (Segal) has conducted an actuarial valuation of the Los Angeles City Employees' Retirement System (LACERS or the "System") retirement program as of June 30, 2015, in accordance with generally accepted actuarial principles and practices. In particular, it is our understanding that the assumptions and methods used for funding purposes meet the parameters set by the Actuarial Standards of Practice (ASOPs). Actuarial valuations are performed annually for this retirement program with the last valuation completed on June 30, 2014. The actuarial calculations presented in this report have been made on a basis consistent with our understanding of the historical funding methods used in determination of the liability for retirement benefits.

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

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

The actuarial computations made are for funding plan benefits. Accordingly, additional determinations will be needed for other purposes, such as satisfying financial accounting requirements under Governmental Accounting Standards Board (GASB) Statements No. 67 and No. 68 and judging benefit security at termination of the plan.

Segal prepared all of the supporting schedules in the Actuarial Section of the Comprehensive Annual Financial Report (CAFR). A listing of the supporting schedules Segal prepared for inclusion in the Financial Section as Required Supplementary Information prescribed by GASB and in the Actuarial Section is provided below:

Financial Section

1) Schedule of Net Pension Liability*
2) Schedule of Changes in Net Pension Liability and Related Ratios*
3) Schedule of Contribution History*

* Source: Segal's GASB Statement No. 67 valuation report as of June 30, 2015. We understand that the Schedule of Changes in Net Pension Liability and Related Ratios is also included in the Actuarial Section of the CAFR.

Actuarial Certification (continued)

October 30, 2015

Actuarial Section

4) Summary of Significant Valuation Results
5) Active Member Valuation Data
6) Retirees and Beneficiaries Added to and Removed from Retiree Payroll
7) Solvency Test for Retirement Benefits
8) Schedule of Funding Progress
9) Actuarial Analysis of Financial Experience
10) Actuarial Balance Sheet
11) Projection of Pension Plan's Fiduciary Net Position for use in Calculation of Discount Rate as of June 30, 2015*

* Source: Segal's GASB Statement No. 67 valuation report as of June 30, 2015.

LACERS' staff prepared other trend data schedules in the Statistical Section based on information supplied in Segal's valuation report.

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

Andy Yeung, ASA, MAAA, FCA, EA
Vice President and 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: 2006 – 2015

Year Ended June 30	Active Members	Inactive Members*	Retired Members and Beneficiaries	Ratio of Non-Actives to Actives
2006	28,839	2,903	14,570	0.61
2007	30,175	3,303	14,836	0.60
2008	30,236	4,273	14,975	0.64
2009	30,065	4,554	14,991	0.65
2010	26,245	5,344	17,264	0.86**
2011	25,449	5,623	17,197	0.90
2012	24,917	5,808	17,223	0.92
2013	24,441	5,799	17,362	0.95
2014	24,009	6,031	17,532	0.98
2015	23,895	6,507	17,932	1.02

* *Includes terminated members due a refund of employee contributions.*

** *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 23,895 active members with an average age of 48.8, average years of service of 15.0 years and average payroll of $79,835.

The 24,009 active members in the prior valuation had an average age of 48.8, average service of 15.0 years and average payroll of $79,056.

Inactive Members

In this year's valuation, there were 6,507 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, versus 6,031 in the prior valuation.

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, 2015

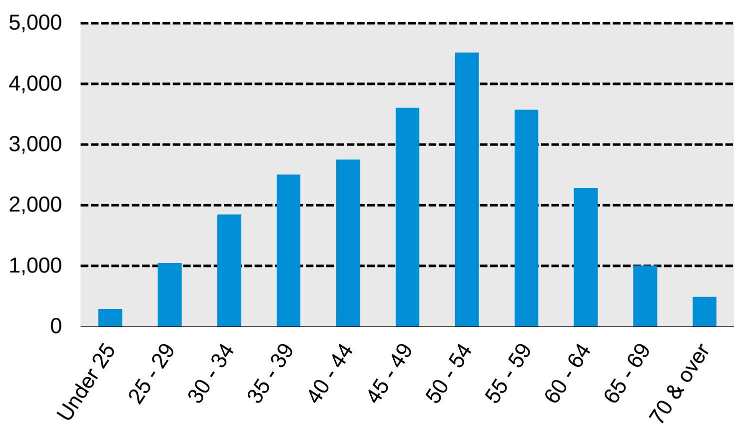
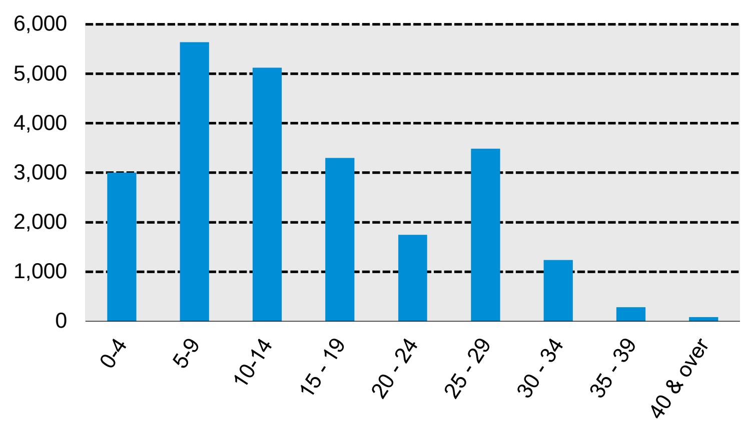


CHART 3

Distribution of Active Members by Years of Service as of June 30, 2015



Retired Members and Beneficiaries

As of June 30, 2015, 14,127 retired members and 3,805 beneficiaries were receiving total monthly benefits of $62,532,646. For comparison, in the previous valuation, there were 13,780 retired members and 3,752 beneficiaries receiving monthly benefits of $59,713,006. These monthly benefits 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.

■ Disability

■ Regular

CHART 4

Distribution of Retired Members by Type and by Monthly Amount as of June 30, 2015

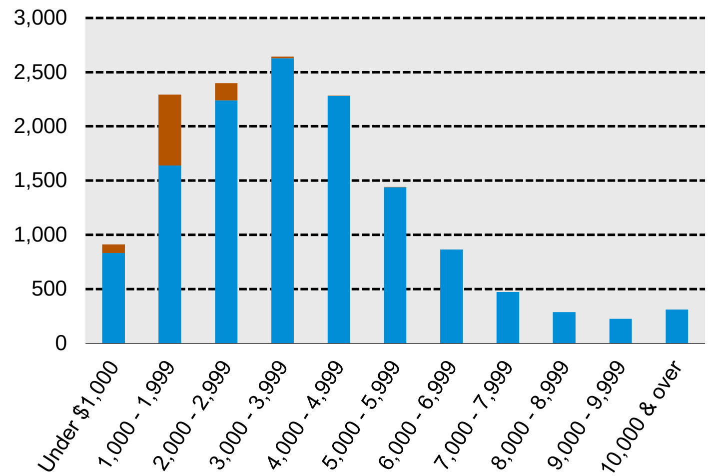
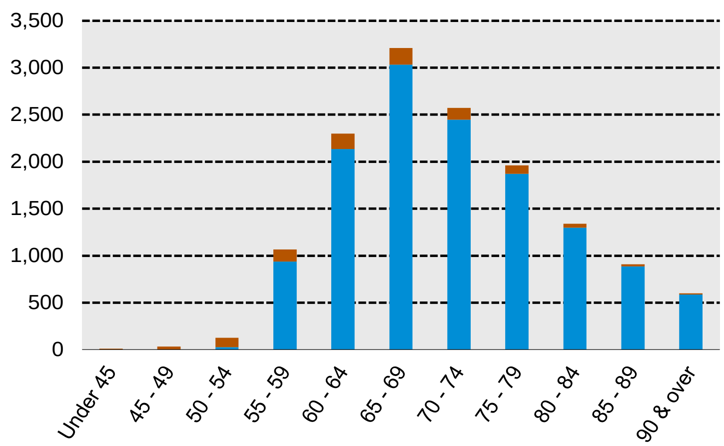


CHART 5

Distribution of Retired Members by Type and by Age as of June 30, 2015



B. FINANCIAL INFORMATION

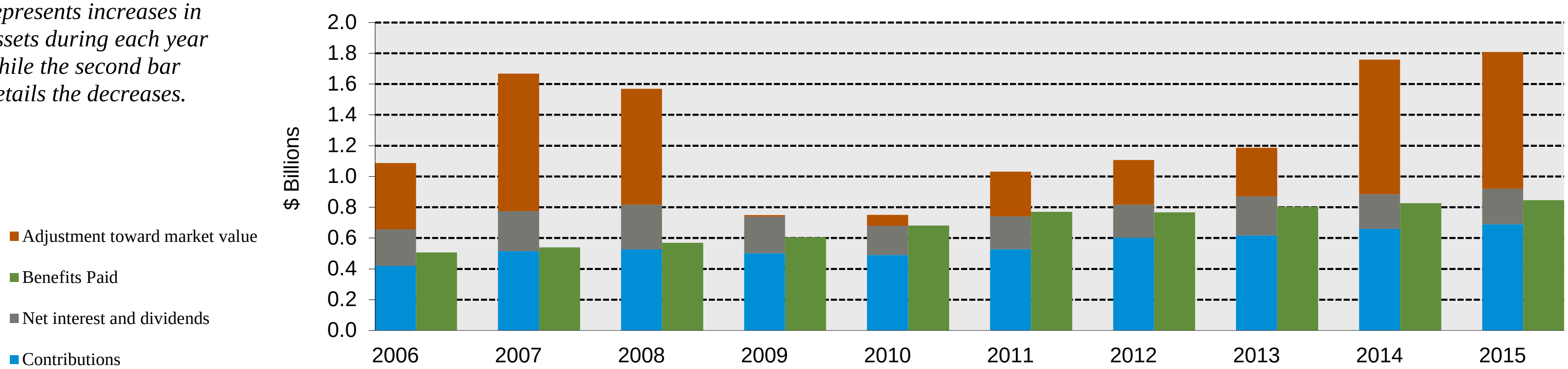
Retirement plan funding anticipates that, over the long term, both contributions and net investment earnings (less investment fees and administrative expenses) will be needed to cover benefit payments.

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

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

CHART 6

Comparison of Increases and Decreases in the Actuarial Value of Assets for Years Ended June 30, 2006 – 2015



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, 2015

		Original Amount	Portion Not Recognized	Amount Not Recognized	
1.	Market value of assets				$14,124,760,375
2.	Calculation of unrecognized return[1]				
	(a) Year ended June 30, 2015	-$707,760,540	6/7	-$606,651,891	
	(b) Year ended June 30, 2014	1,246,285,581	5/7	890,203,986	
	(c) Combined net deferred loss as of June 30, 2013[2]	-81,571,421	4/6	-54,380,947	
	(d) Total unrecognized return				$229,171,148
3.	Preliminary actuarial value: (1) - (2d)				$13,895,589,227
4.	Adjustment to be within 40% corridor				0
5.	Final actuarial value of assets: (3) + (4)				$13,895,589,227
6.	Actuarial value as a percentage of market value: (5) ÷ (1)				98.4%
7.	Market value of retirement assets				$11,920,570,019[3]
8.	Valuation value of retirement assets (5) ÷ (1) x (7)				$11,727,161,378
9.	Deferred return recognized in each of the next 6 years:				
	(a) Amount recognized on 6/30/2016				$63,336,911
	(b) Amount recognized on 6/30/2017				63,336,911
	(c) Amount recognized on 6/30/2018				63,336,911
	(d) Amount recognized on 6/30/2019				63,336,911
	(e) Amount recognized on 6/30/2020				76,932,148
	(f) Amount recognized on 6/30/2021				-101,108,649
	(g) Subtotal (may not total exactly due to rounding)				$229,171,148

(1) *Total return minus expected return on a market value basis.*

(2) *Based on action taken by the Board on September 9, 2014, the net unrecognized loss as of June 30, 2013 (i.e., $81,571,421) has been recognized in six level amounts, with four years of recognition remaining after the June 30, 2015 valuation.*

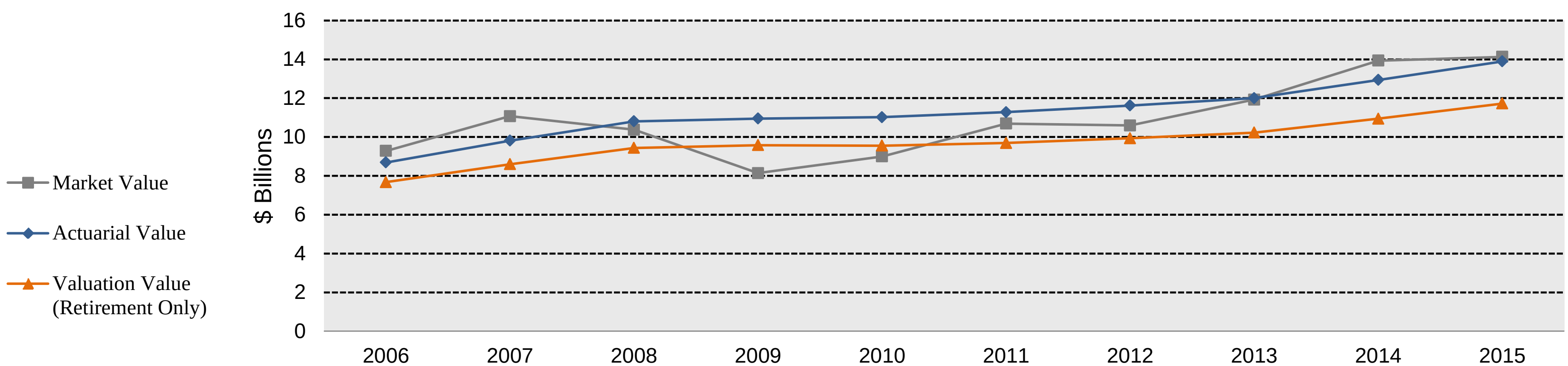
(3) *Excludes the Reserve for Larger Annuity Contributions (Acct. 256), based on directions from LACERS. This reserve has been separately identified by LACERS for the first time in the June 30, 2015 valuation, pursuant to a suggestion made by Segal. The amount in Acct. 256 was $4,666,410 as of June 30, 2014 and $5,199,707 as of June 30, 2015, on a market value basis.*

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

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

CHART 8

Market Value, Actuarial Value, and Valuation Value (Retirement Only) of Assets as of June 30, 2006 – 2015



C. ACTUARIAL EXPERIENCE

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

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

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

The total gain of $274,717,575 was due to an investment gain of $115,878,588 (after smoothing), and a gain of $158,838,987 from all other sources. The net experience variation from all other sources was 0.94% 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, 2015

1.	Net gain from investments*	$115,878,588
2.	Net gain from other experience**	220,408,539
3.	Net loss from scheduled one-year delay in implementing the higher contribution rate calculated in the June 30, 2014 valuation until fiscal year 2015/2016	-61,569,552
4.	Net experience gain: (1) + (2) + (3)	$274,717,575

* *Details in Chart 10.*

** *Details in Chart 13. The net gain is attributed to actual liability experience from July 1, 2014 through June 30, 2015 compared to the projected experience based on the actuarial assumptions as of June 30, 2014.*

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 7.50% (for the June 30, 2014 valuation). The actual rate of return on the valuation value of assets basis for the 2015 plan year was 8.55%.

Since the actual return for the year was more than the assumed return, LACERS experienced an actuarial gain during the year ended June 30, 2015 with regard to its investments.

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

CHART 10

Investment Experience for Year Ended June 30, 2015

	Market Value (Includes assets for Retirement, Health, Family Death, and Larger Annuity Benefits)	Actuarial Value (Includes assets for Retirement, Health, Family Death, and Larger Annuity Benefits)	Valuation Value (Includes assets for Retirement Only)
1. Actual return	$348,113,908	$1,119,211,360	$943,705,819
2. Average value of assets	$14,078,325,971	$13,078,057,371	$11,037,696,420
3. Actual rate of return: (1) ÷ (2)	2.47%	8.56%	8.55%
4. Assumed rate of return	7.50%	7.50%	7.50%
5. Expected return: (2) x (4)	$1,055,874,448	$980,854,303	$827,827,231
6. Actuarial gain/(loss): (1) – (5)	-$707,760,540	$138,357,057	$115,878,588

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

CHART 11

Investment Return – Actuarial Value vs. Market Value: 2006 – 2015

Year Ended June 30	Net Interest and Dividend Income		Recognition of Capital Appreciation		Actuarial Value Investment Return		Market Value Investment Return	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
2006	$238,266,254	2.90%	$430,034,467	5.24%	$668,300,721	8.14%	$1,041,664,291	12.34%
2007	261,677,229	2.95%	890,907,654	10.04%	1,152,584,883	12.99%	1,811,903,293	19.13%
2008	290,092,182	2.91%	752,500,487	7.53%	1,042,592,669	10.44%	-649,747,001	-5.78%
2009	237,249,377	2.17%	9,861,278	0.09%	247,110,655	2.26%	-2,125,637,471	-20.26%
2010	190,583,695	1.73%	71,009,369	0.64%	261,593,064	2.37%	1,049,769,484	12.79%
2011	211,685,408	1.91%	291,263,922	2.63%	502,949,330	4.54%	1,934,130,562	21.33%
2012	213,980,878	1.88%	290,831,650	2.55%	504,812,528	4.43%	67,093,447	0.62%
2013	253,877,178	2.17%	315,633,473	2.69%	569,510,651	4.86%	1,512,696,071	14.14%
2014[1]	225,147,763	1.86%	873,017,519	7.19%	1,098,165,282	9.05%	2,180,005,303	18.09%
2015	231,942,743	1.77%	887,268,617	6.79%	1,119,211,360	8.56%	348,113,908	2.47%
Total	$2,354,502,707		$4,812,328,436		$7,166,831,143		$7,169,991,887	
					Five-year average return:	6.27%		11.01%
					Ten-year average return:	6.71%		6.70%

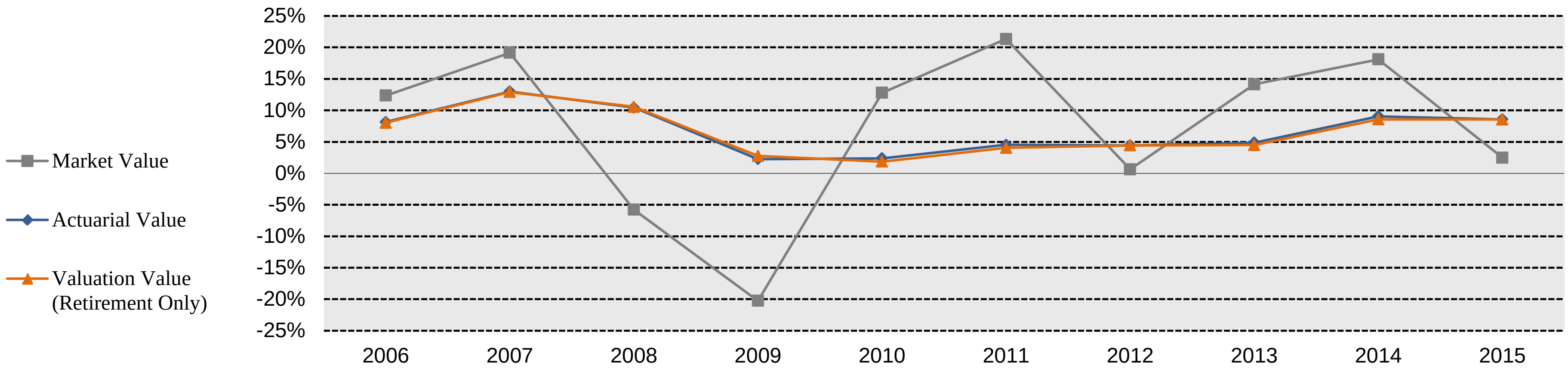
[1] *Based on information provided by LACERS, the net interest and dividend income and recognition of capital appreciation amounts and percentages have been reclassified for comparative purposes. Such reclassification had no effect on the previously reported Fiduciary Net Position (i.e., market value of assets) for fiscal year ended June 30, 2014.*

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 2006 - 2015.

CHART 12

Market Value, Actuarial Value, and Valuation Value (Retirement Only) Rates of Return for Years Ended June 30, 2006 - 2015



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, 2015 amounted to $220,408,539 which is 1.30% of the actuarial accrued liability.

A brief summary of the demographic gain experience of LACERS for the year ended June 30, 2015 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, 2015

1.	Gain due to lower than expected salary increases for continuing actives	$144,923,819
2.	Gain due to lower than expected COLA granted to retirees and beneficiaries	141,514,776
3.	Miscellaneous loss	-66,030,056[1]
4.	Total gain	$220,408,539

[1] *Mainly due to earlier than expected ages at retirement for new retirements from active service.*

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 23.65% of payroll, if paid by the City at the end of each pay period. 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 under the old GASB Statements No. 25 and 27 is greater than the amount prescribed below. For 2015, the beginning of year minimum GASB ARC is $390.5 million, so no additional adjustment has been made to the recommended contributions.

As shown in item 1 on the next page for the combined results, the total normal cost rate decreased from 16.98% on June 30, 2014 to 16.91% on June 30, 2015.

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

CHART 14

Recommended Contribution

	Year Ended June 30			
	2015		2014[(1)]	
Tier 1	**Amount**	**% of Payroll**	**Amount**	**% of Payroll**
1. Total normal cost	$309,311,393	17.29%	$317,309,773	17.13%
2. Expected employee contributions[(2)]	-188,661,682	-10.54%	-193,285,472	-10.44%
3. Employer normal cost: (1) + (2)	$120,649,711	6.75%	$124,024,301	6.69%
4. Actuarial accrued liability	16,897,676,431		16,246,087,868	
5. Valuation value of assets	-11,715,446,106		-10,942,188,982	
6. Unfunded actuarial accrued liability	$5,182,230,325		$5,303,898,886	
7. Amortization of unfunded accrued liability	293,248,621	16.39%[(3)]	307,947,998	16.63%[(3)]
8. Total recommended contribution, beginning of year: (3) + (7)	$413,898,332	23.14%	$431,972,299	23.32%
9. Total recommended contribution, July 15	$415,130,302	23.21%	$433,258,066	23.39%
10. Total recommended contribution, end of pay periods	$429,138,924	23.99%	$447,878,412	24.18%
11. Projected payroll	$1,788,743,164		$1,852,318,041	

(1) *The June 30, 2014 contribution rates are before 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. Those adjustments no longer apply after the June 30, 2014 valuation.*

(2) *Discounted to beginning of year. The average employee rate for contributions made at the end of each pay period is actually 10.83% for the June 30, 2014 valuation and 10.94% for the June 30, 2015 valuation. The increase in the average employee rate is mainly due to an increase in the proportion of Tier 1 employees paying the additional 4% employee contribution rate.*

(3) *In developing the UAAL contribution rate, we have combined the UAAL for Tier 1 and Tier 2 and amortized that total UAAL over the total payroll for Tier 1 and Tier 2.*

CHART 14 (continued)

Recommended Contribution

	Year Ended June 30			
	2015		2014[1]	
Tier 2	Amount	% of Payroll	Amount	% of Payroll
1. Total normal cost	$13,262,881	11.15%	$5,070,478	11.08%
2. Expected employee contributions[2]	-11,462,307	-9.64%	-4,409,266	-9.64%
3. Employer normal cost: (1) + (2)	$1,800,574	1.51%	$661,212	1.44%
4. Actuarial accrued liability	12,319,949		2,765,231	
5. Valuation value of assets	-11,715,272		-2,561,592	
6. Unfunded actuarial accrued liability	$604,677		$203,639	
7. Amortization of unfunded accrued liability[4]	19,496,117	16.39%[3]	7,605,298	16.63%[3]
8. Total recommended contribution, beginning of year: (3) + (7)	$21,296,691	17.90%	$8,266,510	18.07%
9. Total recommended contribution, July 15	$21,360,080	17.96%	$8,291,115	18.12%
10. Total recommended contribution, end of pay periods	$22,080,880	18.57%	$8,570,900	18.74%
11. Projected payroll	$118,921,434		$45,746,134	
Combined				
1. Total normal cost	$322,574,274	16.91%	$322,380,251	16.98%
2. Expected employee contributions	-200,123,989	10.49%	-197,694,738	-10.42%
3. Employer normal cost: (1) + (2)	$122,450,285	6.42%	$124,685,513	6.56%
4. Actuarial accrued liability	16,909,996,380		16,248,853,099	
5. Valuation value of assets	-11,727,161,378		-10,944,750,574	
6. Unfunded actuarial accrued liability	$5,182,835,002		$5,304,102,525	
7. Amortization of unfunded accrued liability	312,744,738	16.39%	315,553,296	16.63%
8. Total recommended contribution, beginning of year: (3) + (7)	$435,195,023	22.81%	$440,238,809	23.19%
9. Total recommended contribution, July 15	$436,490,382	22.88%	$441,549,181	23.26%
10. Total recommended contribution, end of pay periods	$451,219,804	23.65%	$456,449,312	24.05%
11. Projected payroll	$1,907,664,598		$1,898,064,175	

(1) *The June 30, 2014 contribution rates are before 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. Those adjustments no longer apply after the June 30, 2014 valuation.*

(2) *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, 2014 and June 30, 2015 valuations.*

(3) *In developing the UAAL contribution rate, we have combined the UAAL for Tier 1 and Tier 2 and amortized that total UAAL over the total payroll for Tier 1 and Tier 2.*

(4) *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 is 6.42% of payroll for Tier 1 and Tier 2 combined. The remaining 16.39% of payroll will amortize the unfunded actuarial accrued liability over an equivalent single amortization period of about 24 years.

The contribution rates as of June 30, 2015 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[1] from June 30, 2014 to June 30, 2015

Recommended Contribution as of June 30, 2014	24.05%
Effect of decrease in employer normal cost due to payroll and demographic changes[2] (including the enrollment of new employees in Tier 2)	-0.35%
Effect of anticipated one-year delay in implementing the higher combined contribution rate calculated in the prior valuation	0.28%
Effect of investment gain	-0.52%
Effect of amortizing prior year's UAAL over a smaller than expected projected total payroll	0.60%
Effect of lower than expected salary increases for actives	-0.66%
Effect of lower than expected COLAs granted to retirees and beneficiaries	-0.64%
Effect of refinement in procedure to reflect the cash refund versus life annuity form of payment	0.60%
Effect of other losses on accrued liability	0.29%
Total change	-0.40%
Recommended Contribution as of June 30, 2015	23.65%

(1) *Based on contributions at the end of each pay period. The June 30, 2014 rate is 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. Those adjustments no longer apply after the June 30, 2014 valuation.*

(2) *Excludes the incremental increase in the normal cost rate due to the refinement in procedure to reflect the cash refund versus life annuity form of payment, referenced herein. That incremental increase is included in the effect of the refinement in procedure item noted below.*

E. FUNDED RATIO

A commonly reported piece of information regarding the Plan’s financial status is the funded ratio. The ratios compare the valuation value of assets and the market value of assets to the actuarial accrued liabilities of the Plan as calculated. High ratios indicate a well-funded plan with assets sufficient to cover the plan’s actuarial accrued liabilities. Lower ratios may indicate recent changes to benefit structures, funding of the plan below actuarial requirements, poor asset performance, or a variety of other factors. The chart below depicts a history of the funded ratios for this plan.

The funded status measures shown in this valuation are appropriate for assessing the need for or amount of future contributions. However, they are not necessarily appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan’s benefit obligations. As the chart below shows, the measures are different depending on whether the valuation or market value of assets is used.

CHART 16

Funded Ratio for Plan Years Ending June 30, 2006 - 2015

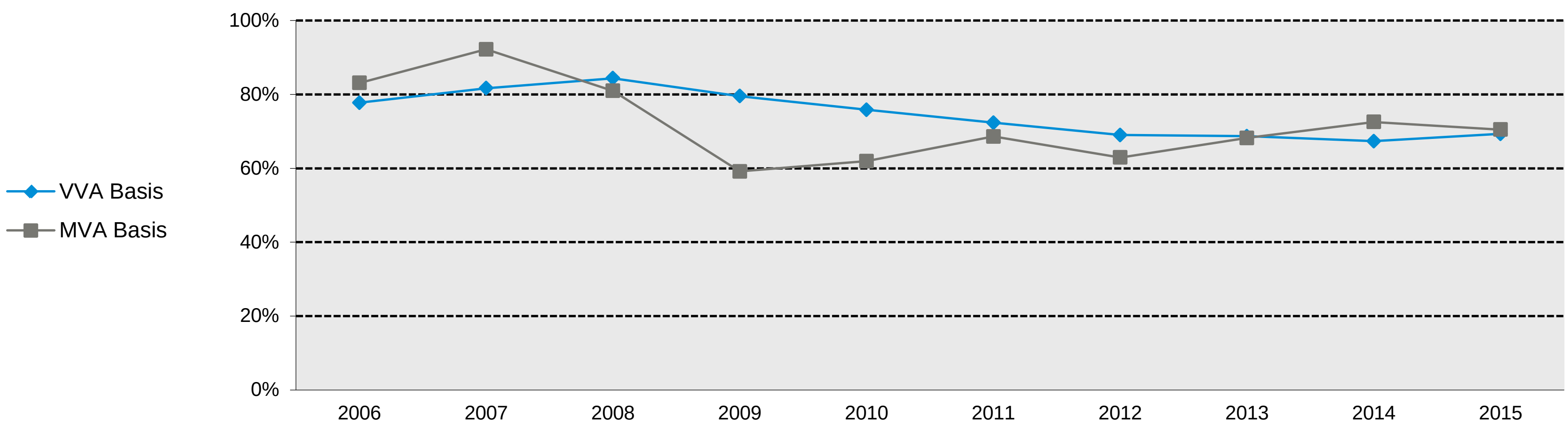


CHART 17

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)
06/30/2006	$7,674,999,374	$9,870,662,387	$2,195,663,013	77.76%	$1,733,339,536	126.67%
06/30/2007	8,599,699,772[1]	10,526,874,184	1,927,174,412	81.69%	1,896,609,013	101.61%
06/30/2008	9,438,318,300	11,186,403,741	1,748,085,441	84.37%	1,977,644,640	88.39%
06/30/2009	9,577,747,421	12,041,983,936	2,464,236,515	79.54%	1,816,171,212	135.68%
06/30/2010	9,554,027,411	12,595,025,119	3,040,997,708	75.86%	1,817,662,284	167.30%
06/30/2011	9,691,011,496	13,391,704,000	3,700,692,504	72.37%	1,833,392,381	201.85%
06/30/2012	9,934,959,310	14,393,958,574	4,458,999,264	69.02%	1,819,269,630	245.10%
06/30/2013	10,223,960,886	14,881,663,162	4,657,702,276	68.70%	1,846,970,474	252.18%
06/30/2014	10,944,750,574	16,248,853,099	5,304,102,525	67.36%	1,898,064,175	279.45%
06/30/2015	11,727,161,378	16,909,996,380	5,182,835,002	69.35%	1,907,664,598	271.68%

[1] *Valuation value of assets is after excluding $5,269,481 of discounted Harbor Port Police assets transferred in October 2007.*

F. VOLATILITY RATIOS

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

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

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

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

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

For LACERS, the current LVR is about 8.9. This is about 44% 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 – 2015

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
2014	6.2	8.6
2015	6.2	8.9

EXHIBIT A
Table of Plan Coverage
i. Tier 1

Category	Year Ended June 30 2015	2014	Change From Prior Year
Active members in valuation:			
Number	21,915	23,254	-5.8%
Average age	50.0	49.2	N/A
Average service	16.3	15.5	N/A
Projected total payroll*	$1,788,743,164	$1,852,318,041	-3.4%
Projected average payroll*	$81,622	$79,656	2.5%
Account balances	$1,867,847,943	$1,779,024,865	5.0%
Total active vested members	20,898	21,784	-4.1%
Inactive members:			
Number	6,252	5,981	4.5%
Average age	44.9	44.6	N/A
Average contribution balance for those with under 5 years of service	$5,337	$5,047	5.7%
Average monthly benefit at age 60 for those with 5 or more years of service**	$1,440	$1,461	-1.4%
Retired members:			
Number in pay status	13,217	12,880	2.6%
Average service at retirement	26.7	26.7	N/A
Average age at retirement	60.2	60.1	N/A
Average age	71.8	71.8	N/A
Average monthly benefit (includes July COLA)	$4,023	$3,936	2.2%
Disabled members:			
Number in pay status	910	900	1.1%
Average service at retirement	11.8	11.9	N/A
Average age at retirement	46.7	46.4	N/A
Average age	65.2	64.5	N/A
Average monthly benefit (includes July COLA)	$1,616	$1,593	1.4%
Beneficiaries:			
Number in pay status	3,805	3,752	1.4%
Average age	76.5	76.4	N/A
Average monthly benefit (includes July COLA)	$2,072	$2,020	2.6%

* *Reflects annualized salaries for part-time members.*

** *Based on salary at termination from LACERS.*

EXHIBIT A

Table of Plan Coverage

ii. Tier 2

Category	Year Ended June 30 2015	Year Ended June 30 2014	Change From Prior Year
Active members in valuation:			
Number	1,980	755	162.3%
Average age	35.7	35.2	N/A
Average service	0.8	0.5	N/A
Projected total payroll*	$118,921,434	$45,746,134	160.0%
Projected average payroll*	$60,061	$60,591	-0.9%
Account balances	$9,670,450	$2,321,012	316.6%
Total active vested members	8	3	166.7%
Inactive members:			
Number	255	50	410.0%
Average age	35.6	35.6	N/A
Average contribution balance for those with under 5 years of service	$2,441	$1,337	82.6%
Average monthly benefit at age 60 for those with 5 or more years of service**	$708	$0	N/A
Retired members:			
Number in pay status	0	0	N/A
Average service at retirement	N/A	N/A	N/A
Average age at retirement	N/A	N/A	N/A
Average age	N/A	N/A	N/A
Average monthly benefit (includes July COLA)	N/A	N/A	N/A
Disabled members:			
Number in pay status	0	0	N/A
Average service at retirement	N/A	N/A	N/A
Average age at retirement	N/A	N/A	N/A
Average age	N/A	N/A	N/A
Average monthly benefit (includes July COLA)	N/A	N/A	N/A
Beneficiaries:			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit (includes July COLA)	N/A	N/A	N/A

* *Reflects annualized salaries for part-time members.*

** *Based on salary at termination from LACERS.*

EXHIBIT B

Members in Active Service as of June 30, 2015
By Age, Years of Service, and Average Payroll

i. Tier 1

		Years of Service								
Age	**Total**	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40 & over**
Under 25	27	25	2	- -	- -	- -	- -	- -	- -	- -
	$49,242	$49,026	$51,948	- -	- -	- -	- -	- -	- -	- -
25 - 29	532	222	303	7	- -	- -	- -	- -	- -	- -
	54,048	54,871	53,553	$49,372	- -	- -	- -	- -	- -	- -
30 - 34	1,470	208	1,002	246	14	- -	- -	- -	- -	- -
	69,048	65,382	69,912	69,001	$62,557	- -	- -	- -	- -	- -
35 - 39	2,250	130	1,001	895	216	8	- -	- -	- -	- -
	76,843	67,357	75,383	78,566	81,849	$85,677	- -	- -	- -	- -
40 - 44	2,568	111	808	876	635	121	17	- -	- -	- -
	81,187	69,345	74,660	81,659	88,496	92,867	$88,272	- -	- -	- -
45 - 49	3,466	113	731	826	738	487	545	26	- -	- -
	83,817	71,461	72,095	77,107	88,351	99,494	92,107	$84,126	- -	- -
50 - 54	4,411	86	675	762	658	475	1,267	458	30	- -
	87,135	64,780	71,263	76,742	86,389	95,535	97,723	94,517	$95,786	- -
55 - 59	3,477	67	508	644	455	342	902	436	117	6
	85,926	74,125	68,803	73,247	83,794	91,655	95,650	102,560	91,365	$86,588
60 - 64	2,242	34	358	490	332	199	501	210	84	34
	85,299	82,473	70,097	73,568	84,735	96,534	93,848	100,083	101,522	99,635
65 - 69	988	22	149	255	175	79	174	72	39	23
	77,887	60,923	63,524	65,032	81,409	89,189	88,726	90,617	94,053	114,810
70 & over	484	10	95	119	76	37	80	33	14	20
	70,158	44,437	50,710	62,512	77,732	75,388	79,781	87,067	83,356	106,790
Total	21,915	1,028	5,632	5,120	3,299	1,748	3,486	1,235	284	83
	$81,622	$64,846	$70,543	$75,894	$85,847	$95,050	$94,845	$97,658	$94,811	$104,621

EXHIBIT B

Members in Active Service as of June 30, 2015
By Age, Years of Service, and Average Payroll

ii. Tier 2

		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	260	260	- -	- -	- -	- -	- -	- -	- -	- -
	$45,756	$45,756	- -	- -	- -	- -	- -	- -	- -	- -
25 - 29	514	514	- -	- -	- -	- -	- -	- -	- -	- -
	51,008	51,008	- -	- -	- -	- -	- -	- -	- -	- -
30 - 34	378	378	- -	- -	- -	- -	- -	- -	- -	- -
	60,791	60,791	- -	- -	- -	- -	- -	- -	- -	- -
35 - 39	253	252	1	- -	- -	- -	- -	- -	- -	- -
	67,520	67,573	$54,228	- -	- -	- -	- -	- -	- -	- -
40 - 44	182	182	- -	- -	- -	- -	- -	- -	- -	- -
	68,768	68,768	- -	- -	- -	- -	- -	- -	- -	- -
45 - 49	136	135	1	- -	- -	- -	- -	- -	- -	- -
	74,398	74,452	67,043	- -	- -	- -	- -	- -	- -	- -
50 - 54	101	101	- -	- -	- -	- -	- -	- -	- -	- -
	71,574	71,574	- -	- -	- -	- -	- -	- -	- -	- -
55 - 59	95	94	1	- -	- -	- -	- -	- -	- -	- -
	71,381	69,746	225,097	- -	- -	- -	- -	- -	- -	- -
60 - 64	40	40	- -	- -	- -	- -	- -	- -	- -	- -
	72,500	72,500	- -	- -	- -	- -	- -	- -	- -	- -
65 - 69	16	16	- -	- -	- -	- -	- -	- -	- -	- -
	61,216	61,216	- -	- -	- -	- -	- -	- -	- -	- -
70 & over	5	5	- -	- -	- -	- -	- -	- -	- -	- -
	44,346	44,346	- -	- -	- -	- -	- -	- -	- -	- -
Total	1,980	1,977	3	- -	- -	- -	- -	- -	- -	- -
	$60,061	$59,977	$115,456	- -	- -	- -	- -	- -	- -	- -

EXHIBIT C

Reconciliation of Member Data

	Active Members	Inactive Members	Disableds	Retired Members	Beneficiaries	Total
Number as of June 30, 2014	24,009	6,031	900	12,880	3,752	47,572
New members	1,297	N/A	N/A	N/A	N/A	1,297
Terminations – with vested rights	-890	890	0	0	0	0
Retirements	-679	-102	N/A	781	N/A	0
New disabilities	-2	-33	35	N/A	N/A	0
Died with beneficiary	N/A	N/A	N/A	N/A	267	267
Deaths or benefits expired	-42	-38	-24	-443	-214	-761
Refund of members contributions	-55	-124	0	0	0	-180
Rehired	257	-256	-1	0	N/A	0
Data adjustments	0	139*	0	-1	0	139
Number as of June 30, 2015	23,895	6,507	910	13,217	3,805	48,334

* *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.

EXHIBIT D

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

	June 30, 2015		June 30, 2014	
Contribution income:				
Employer contributions	$481,765,868		$455,658,786	
Employee contributions	207,564,465		204,135,914	
Net contribution income		$689,330,333		$659,794,700
Investment income:				
Interest, dividends and other income	$315,373,999		$297,955,531[1]	
Recognition of capital appreciation	887,268,617		873,017,519[1]	
Less investment and administrative fees	-83,431,256		-72,807,769[1]	
Net investment income		$1,119,211,360		$1,098,165,281
Total income available for benefits		$1,808,541,693		$1,757,959,981
Less benefit payments:				
Payment of benefits	-$838,334,980		-$810,584,271	
Refunds of contributions	-10,120,884		-15,982,650	
Net benefit payments		-$848,455,864[2]		-$826,566,921
Change in reserve for future benefits		$960,085,829		$931,393,060

[1] *Based on information provided by LACERS, these amounts have been reclassified for comparative purposes. Such reclassification had no effect on the previously reported Fiduciary Net Position (i.e., market value of assets) for fiscal year ended June 30, 2014.*

[2] *Includes a transfer of $2,614,765 to the City of Los Angeles Fire and Police Pension Plan due to a change in membership for certain employees in the Office of Public Safety.*

Note: Results may be slightly off due to rounding.

EXHIBIT E

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

	June 30, 2015		June 30, 2014	
Cash equivalents		$520,833,530		$681,628,644
Accounts receivable:				
Investment income	$44,947,780		$41,214,524	
Proceeds from sales of investments	118,813,253		166,513,233	
Other	9,783,949		14,362,275	
Total accounts receivable		$173,544,982		$222,090,032
Investments:				
Fixed Income	$3,589,262,579		$2,860,598,505	
Equities	8,100,719,055		8,617,236,944	
Real Estate and Alternative Investment	1,991,923,845		1,967,891,805	
Other	847,945,965		1,037,019,541	
Total investments at market value		$14,529,851,444		$14,482,746,795
Capital assets		$4,050,199		$2,667,881
Total assets		$15,228,280,155		$15,389,133,352
Less accounts payable:				
Accounts payable and accrued expenses		-$34,950,273	-$17,879,799	
Accrued investment expenses		-9,333,189	-11,993,596	
Purchases of investments		-228,312,951	-400,955,915	
Security lending collateral		-830,923,367	-1,022,532,044	
Total accounts payable		-$1,103,519,780		-$1,453,361,354
Net assets at market value		$14,124,760,375		$13,935,771,998
Net assets at actuarial value		$13,895,589,227		$12,935,503,398
Net assets at valuation value (retirement benefits)		$11,727,161,378		$10,944,750,574

Note: Results may be slightly off due to rounding.

EXHIBIT F

Development of the Fund Through June 30, 2015 for Retirement, Health, Family Death, and Larger Annuity Benefits

Year Ended June 30	Employer Contributions	Employee Contributions	Net Investment Return[1]	Benefit Payments	Actuarial Value of Assets at End of Year
2006	$320,399,222	$98,262,366	$668,300,721	$506,604,304	$8,686,104,097
2007	408,392,318	106,233,984	1,152,584,883	540,388,726	9,812,926,556
2008	411,658,277	114,678,456	1,042,592,669[2]	576,014,324[3]	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
2014	455,658,786	204,135,914	1,098,165,281	826,566,921	12,935,503,398
2015	481,765,868	207,564,465	1,119,211,360	848,455,864[4]	13,895,589,227

(1) *Based on actuarial value of assets. Net of investment fees and administrative expenses.*

(2) *Includes an $11,000,000 return of excess reserve from PPO carrier.*

(3) *Includes transfer of $6,220,076 to Fire and Police Pension for Harbor Port Police.*

(4) *Includes transfer of $2,614,765 to Fire and Police Pension for Office of Public Safety.*

EXHIBIT G

Development of Unfunded Actuarial Accrued Liability for Year Ended June 30, 2015

1.	Unfunded actuarial accrued liability at beginning of year	$5,304,102,525
2.	Normal cost at beginning of year	322,380,251
3.	Expected contributions at beginning of year*	-632,707,163
4.	Interest	374,533,171
5.	Expected unfunded actuarial accrued liability	$5,368,308,784
6.	Changes due to net experience gain**	-274,717,575
7.	Refinement in procedure to reflect the cash refund versus life annuity form of payment	89,243,793
8.	Unfunded actuarial accrued liability at end of year	$5,182,835,002

* *Net of the additional expected employer contributions due to the application of the 40-year minimum amortization required for the two GASB 25/27 layers, since the beginning of year UAAL was developed without the liability associated with those two layers. These additional contributions will serve to reduce the contribution loss from the scheduled one-year delay in implementing the higher contribution rates calculated in the prior valuation.*

** *The breakdown of the net experience gain is as follows:*

Loss due to actual contributions less than expected (with interest to end of year)	*$61,569,552*
Investment gain	*-115,878,588*
Gain due to lower than expected salary increases for continuing actives	*-144,923,819*
Gain due to lower than expected COLAs granted to retirees and beneficiaries	*-141,514,776*
Miscellaneous loss	*66,030,056*
Total gain	*-$274,717,575*

EXHIBIT H
Table of Amortization Bases

Type	Date Established	Initial Years	Initial Amount	Outstanding Balance	Years Remaining	Annual Payment*
Plan amendment (2009 ERIP)	06/30/2009	15	$300,225,354	$253,550,626	9	$32,043,342
Combined base	06/30/2012	30	4,173,548,280	4,427,228,044	27	243,953,282
Experience loss	06/30/2013	15	116,022,989	112,398,403	13	10,465,066
Experience gain	06/30/2014	15	-215,549,892	-212,438,263	14	-18,650,219
Change in assumptions	06/30/2014	20	785,439,114	787,569,974	19	54,928,517
Experience gain**	06/30/2015	15	-185,473,782	-185,473,782	15	-15,430,689
Subtotal before GASB amount				$5,182,835,002		$307,309,299
40-year minimum GASB 25/27	06/30/2004	15	29,189,615	14,602,237	4	3,833,758
40-year minimum GASB 25/27	06/30/2005	15	12,708,684	7,503,633	5	1,601,681
Total				$5,204,940,872		$312,744,738

* *Beginning of year payments, based on level percentage of payroll.*

** *Includes effect of refinement in procedure to reflect the cash refund versus life annuity form of payment.*

Note: The equivalent single amortization period is about 24 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 non-compliance is disqualification: active participants could be taxed on their vested benefits and the IRS may seek to tax the income earned on the plan's assets.

In particular, Section 415(b) of the IRC limits the maximum annual benefit payable at the Normal Retirement Age to a dollar limit of $160,000 indexed for inflation. That limit is $210,000 for 2015 and 2016. 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) Investment return — the rate of investment yield that the Plan will earn over the long-term future;

(b) Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates;

(c) Retirement rates — the rate or probability of retirement at a given age; and

(d) Turnover rates — 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.

EXHIBIT I

Summary of Actuarial Valuation Results

The valuation was made with respect to the following data supplied to us:

1.	Retired members as of the valuation date (including 3,805 beneficiaries in pay status)		17,932
2.	Inactive members during year ended June 30, 2015 (including 4,408 members with under 5 years of service eligible for a refund of contributions)		6,507
3.	Members active during the year ended June 30, 2015		23,895
	Fully vested	20,906	
	Not vested	2,989	

The actuarial factors as of the valuation date are as follows:

	Assets		
1.	Valuation value of assets ($14,124,760,375 at market value as reported by LACERS and $13,895,589,227 at actuarial value*)		$11,727,161,378
2.	Present value of future normal costs		
	Employee	$1,637,780,735	
	Employer	975,665,388	
	Total		2,613,446,123
3.	Unfunded actuarial accrued liability		5,182,835,002
4.	Present value of current and future assets		$19,523,442,503
	Liabilities		
5.	Present value of future benefits		
	Retired members and beneficiaries	$8,889,127,074	
	Inactive members	363,898,551	
	Active members	10,270,416,878	
	Total		$19,523,442,503

* *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:

		Tier 1	Tier 2	Combined
1.	Total normal cost	$309,311,393	$13,262,881	$322,574,274
2.	Expected employee contributions[1]	-188,661,682	-11,462,307	-200,123,989
3.	Employer normal cost: (1) + (2)	$120,649,711	$1,800,574	$122,450,285
4.	Payment on projected unfunded actuarial accrued liability	$293,248,621	$19,496,117	$312,744,738
5.	Total recommended contribution: (3) + (4), payable beginning of year	$413,898,332	$21,296,691	$435,195,023
6.	Total recommended contribution: adjusted for July 15 payment	$415,130,302	$21,360,080	$436,490,382
7.	Total recommended contribution: adjusted for biweekly payment	$429,138,924	$22,080,880	$451,219,804
8.	Projected payroll	$1,788,743,164	$118,921,434	$1,907,664,598
9.	Item 5 (beginning of year contribution) as a percentage of projected payroll: (5) ÷ (8)	23.14%	17.90%	22.81%
10.	Item 6 (July 15 contribution) as a percentage of projected payroll: (6) ÷ (8)	23.21%	17.96%	22.88%
11.	Item 7 (biweekly contribution) as a percentage of projected payroll: (7) ÷ (8)	23.99%	18.57%	23.65%

(1) *Discounted to beginning of year.*

EXHIBIT II

History of Employer Contributions

Plan Year Ended June 30	Actuarially Determined Employer Contributions (ADEC)*	Actual Contributions	Percentage Contributed
2006	$227,740,600	$227,740,600	100.00%
2007	277,516,400	277,516,400	100.00%
2008	288,119,041	288,119,041	100.00%
2009	274,554,786	274,554,786	100.00%
2010	258,642,795	258,642,795	100.00%
2011	303,560,953	303,560,953	100.00%
2012	308,539,905	308,539,905	100.00%
2013	346,180,852	346,180,852	100.00%
2014	357,649,232	357,649,232	100.00%
2015	381,140,923	381,140,923	100.00%

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

EXHIBIT III

Actuarial Assumptions and Actuarial Cost Method

Rationale for Assumptions: The information and analysis used in selecting each assumption that has a significant effect on this actuarial valuation is shown in the July 1, 2011 through June 30, 2014 Actuarial Experience Study dated October 8, 2014. Unless otherwise noted, all actuarial assumptions and methods shown below apply to both Tier 1 and Tier 2 members. These assumptions have been adopted by the Board.

Demographic Assumptions:

Post-Retirement Mortality Rates:

Healthy Members and All Beneficiaries: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set back one year for males and with no setback for females.

Disabled Members: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set forward seven years for males and set forward eight years for females.

The above mortality tables contain about a 10% margin, based on actual to expected deaths, as a provision appropriate to reasonably anticipate future mortality improvement, based on a review of mortality experience as of the measurement date.

Termination Rates Before Retirement:

Pre-Retirement Mortality: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set back one year for males and with no setback for females.

	Rate (%)	
Age	Disability	Termination*
25	0.01	5.75
30	0.03	5.75
35	0.05	4.85
40	0.09	3.50
45	0.15	2.70
50	0.19	2.50
55	0.20	2.35
60	0.20	2.25

* *Rates for members with five or more years of service. Termination rates are zero for members eligible to retire.*

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

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

Retirement Rates:

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

Retirement Age and Benefit for Inactive Vested Participants:	Pension benefit paid at the later of age 58 or the current attained age. For reciprocals, 4.40% compensation increases per annum.
Exclusion of Inactive Members:	All inactive participants are included in the valuation.
Definition of Active Members:	First day of biweekly payroll following employment for new department employees or immediately following transfer from other city department.
Unknown Data for Members:	Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male.
Percent Married/Domestic Partner:	76% of male participants; 50% of female participants.
Age of Spouse:	Male retirees are assumed to be 4 years older than their female spouses. Female retirees are assumed to be 2 years younger than their male spouses.
Service:	Employment service is used for eligibility determination purposes. Benefit service is used for benefit calculation purposes.
Future Benefit Accruals:	1.0 year of service per year.
Other Reciprocal Service:	5% of future inactive vested members will work at a reciprocal system.
Economic Assumptions:	
Net Investment Return:	7.50%, net of investment and administrative expenses.
Consumer Price Index:	Increase of 3.25% per year; benefit increases due to CPI subject to 3.00% maximum for Tier 1 and 2.00% maximum for Tier 2.
Employee Contribution Crediting Rate:	Based on average of 5-year Treasury note rate. An assumption of 3.25% is used to approximate that crediting rate in this valuation.

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

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

Actuarial Methods:

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

Actuarial Cost Method:	Entry Age Cost Method, level percent of salary.
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. The amortization method for the UAAL is a level percent of payroll, assuming annual increases in total covered payroll equal to inflation plus across the board increases (other than inflation). Both the normal cost and the actuarial accrued liability are determined under the Entry Age cost method and are calculated on an individual basis. Entry age is calculated as age on the valuation date minus years of service. Under the current funding policy, changes in the UAAL due to actuarial gains/losses are amortized over separate 15-year periods. Any changes in the UAAL due to assumption or method changes are amortized over separate 20-year periods. Plan changes, including the 2009 ERIP, are amortized over separate 15-year periods. Future ERIPs will be amortized over 5 years. Any actuarial surplus is amortized over 30 years. All the bases on or before June 30, 2012, except those arising from the 2009 ERIP and the two GASB 25/27 layers, were combined and amortized over 30 years effective June 30, 2012. The recommended contribution is set equal to the greater of the current funding policy or the minimum Annual Required Contribution (ARC) as determined by the then current GASB Statements 25 and 27. In particular, an additional contribution due to the application of the 40-year minimum amortization requirement for both fiscal year 2003/2004 and fiscal year 2004/2005 is included in the calculation of the recommended contribution.

EXHIBIT IV
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 Los Angeles Administrative Code.
Normal Retirement Benefit:	
Tier 1	
Age & Service Requirement	Age 70; or
(§ 4.1005(a))	Age 60 with 10 years of continuous service; or
	Age 55 with at least 30 years of service.
Amount (§ 4.1007(a))	2.16% per year of service credit (not greater than 100%) of the Final Average Monthly Compensation.
Tier 2	
Age & Service Requirement	Age 70; or
(§ 4.1055(a))	Age 65 with 10 years of continuous service.
Amount (§ 4.1055(a))	2.00% per year of service credit (not greater than 75%) of the Final Average Monthly Compensation.

Early Retirement Benefit:

Tier 1

Age & Service Requirement (§ 4.1005(b))	Age 55 with 10 years of continuous service; or Any age with 30 years of service.
Amount (§ 4.1007(b))	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 (§ 4.1055(b))	Age 55 with 10 years of continuous service.
Amount (§ 4.1055(b))	Retirement Factor x years of service credit (not greater than 75%) x Final Average Monthly Compensation. Retirement Factors are as follows:

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

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

Death after Retirement:

Tier 1 (*§ 4.1010(c)*)	(i) 50% of retiree's unmodified allowance continued to an eligible spouse or a domestic partner; or a modified continuance to an eligible spouse or a domestic partner at the time of member's death (or a designated beneficiary selected by member at the time of retirement)*; (ii) $2,500 lump sum death benefit paid to a designated beneficiary; and (iii) Any unused contributions if the member has elected the cash refund annuity option.
Tier 2 (*§ 4.1060(c)*)	(i) If elected at retirement, a modified continuance to an eligible spouse, domestic partner, or designated beneficiary*; (ii) $2,500 lump sum death benefit paid to a designated beneficiary; and (iii) Any unused contributions if the member has elected the cash refund annuity option. * *The retiree may elect at the time of retirement to take a reduced allowance in order to provide for a continuance pursuant to the provisions of either Section 4.1015 (Tier 1) or Section 4.1062 (Tier 2).*

Death before Retirement:

Tier 1 (*§ 4.1010(a)*)	Greater of: Option #1: (i) Eligibility – None. (ii) Benefit – Refund of employee contributions plus a limited pension benefit equal to 50% of monthly salary paid, according to the following schedule:

Death before Retirement: (continued)

Tier 1 (continued)

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

Option #2:

(i) Eligibility – Duty-related death or after 5 years of service.

(ii) Benefit – Continuance of service or disability benefit payable under 100% joint and survivor option to an eligible spouse or qualified domestic partner.

Tier 2

(§ 4.1060(a))

Greater of:

Option #1:

(i) Eligibility – None.

(ii) Benefit – Refund of employee contributions plus a limited pension benefit equal to 50% of monthly salary paid, according to the following schedule:

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

Death before Retirement: (continued)

<u>Tier 2</u> (continued)

<u>Option #2</u>:

(i) Eligibility – Eligible for service retirement.

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

Member Normal Contributions:

<u>Tier 1</u>

(§ 4.1003)

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

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

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

* *The member normal contribution rate will drop down to 6% afterwards.*

<u>Tier 2</u>

(§ 4.1053)

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

Disability:

Tier 1

Service Requirement (§4.1008(a))	5 years of continuous service
Amount(§4.1008(c))*	1/70 (1.43%) of the Final Average Monthly Compensation per year of service or 1/3 of the Final Average Monthly Compensation, if greater.

Tier 2

Service Requirement (§4.1058(a))	10 years of continuous service
Amount (§4.1058(c))*	1/90 (1.11%) of the Final Average Monthly Compensation per year of service.

* *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

(§ 4.1006)

Age & Service Requirement	Age 70 with 5 years of continuous service; or
	Age 60 with 5 years of continuous service and at least 10 years elapsed from first date of membership; or
	Age 55 with at least 30 years of service.
	Deferred employee who meets part-time eligibility: age 60 with at least 10 years from the first date of membership.
Amount	Normal retirement benefit (or refund of contributions, if greater)

Deferred Withdrawal Retirement Benefit (Vested): (continued)

<u>Tier 1</u> (continued)

Age & Service Requirement	Age 55 with 5 years of continuous service and at least 10 years elapsed from first date of membership; or
	Age 55 with 10 years of continuous service.
	Deferred employee who meets part-time eligibility: age 55 with at least 10 years from the first date of membership.
Amount	Early retirement benefit (or refund of contributions, if greater)

<u>Tier 2</u>

(§ 4.1056)

Age & Service Requirement	Age 70 with 5 years of continuous service; or
	Age 55 with 5 years of continuous service and at least 10 years elapsed from first date of membership; or
	Deferred employee who meets part-time eligibility: age 55 with at least 10 years from the first date of membership; or
	Deferred employee who meets part-time eligibility: age 70.
Amount	Early or normal retirement benefit (or refund of contributions, if greater)

Withdrawal of Contributions Benefit (Ordinary Withdrawal):

Refund of employee contributions with interest.

Changes in Plan Provisions: None during July 1, 2014 to June 30, 2015.

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

Los Angeles City Employees' Retirement System

Actuarial Valuation and Review of Other Postemployment Benefits (OPEB) as of June 30, 2015 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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October 30, 2015

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

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review of Other Postemployment Benefits (OPEB) as of June 30, 2015 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, 2015, establishes the Annual Required Contribution (ARC) for the Fiscal Year 2016/2017, 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.

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

JRC/hy

SECTION 1

VALUATION SUMMARY

SECTION 2

VALUATION RESULTS

SECTION 3

VALUATION DETAILS

SECTION 4

SUPPORTING INFORMATION

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, 2015. 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

- 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 Los Angeles Administrative Code, were reported by LACERS as Tier 2 members in this valuation. We were informed, however, that the introduction of the new Tier 2 was legally challenged by the labor groups. Based on a report dated October 23, 2015 from the City Administrative Officer to the Mayor, we understand that the City and the labor groups have entered into an agreement to dismiss the legal challenge by rescinding Tier 2 and adopting an ordinance to enroll new hires in a new Tier 3. As part of the agreement, all Tier 2 members will be transferred to Tier 1.

  As of the issuance date of this valuation report, the provisions of Tier 3 have not yet been determined, and the Tier 2 employees have not yet been transferred to Tier 1. We would assist the Board in determining the funding requirements caused by these events in a separate report as soon as we are directed to do so by LACERS.

- The recommended contribution has decreased from $106.6 million (5.62% of payroll) to $90.5 million (4.74% of payroll), assuming contributions are made by the City on July 15. The main reason for the reduction in contribution rate was due to lower than projected health insurance premiums for the 2016 calendar year. Some premiums for 2016 were renewed at lower amounts than those in effect during 2015. A complete reconciliation of the change in the recommended contribution rate is provided in Section 3, Exhibit H; rates are shown separately for Tiers 1 and 2 in Chart 4 of Section 2.

- The ratio of the actuarial value of assets to actuarial accrued liabilities increased from 72.90% to 79.67%. On a market value of assets basis, the funded ratio increased from 78.54% to 80.99%. The unfunded actuarial accrued liability decreased from $721.6 million to $538.1 million. A complete reconciliation of the System's unfunded actuarial accrued liability is provided in Section 2, Chart 2.

- On October 25, 2011, the Board elected to phase in the impact of new actuarial assumptions (adopted as a result of the June 30, 2011 Triennial Experience Study) on the City's retirement and health plan contributions over a five-year period, beginning with the 2012-2013 Fiscal Year. The recommended contribution rates for Fiscal Year 2016-2017 (the last year of the phase-in) are contained in this report and do not reflect any adjustments for the phase-in, as those adjustments no longer apply.

On October 14, 2014, as part of the Board's deliberations on the actuarial assumptions for use starting with the June 30, 2014 valuation (adopted as a result of the June 30, 2014 Triennial Experience Study), the Board also discussed the possibility of phasing in the cost impact of the new actuarial assumptions on the City's retirement and health plan contributions over three alternative phase-in periods. Based on subsequent discussions, the City chose not to request any phase-in.

- As indicated in Section 3, Exhibit G, the total unrecognized investment gain as of June 30, 2015 is $229,171,148 for the assets for Retirement, Health, Family Death, and Larger Annuity Benefits. This investment gain will be recognized in the determination of the actuarial value of assets for funding purposes in the next several years. This implies that earning the assumed rate of investment return of 7.50% per year (net of expenses) on a market value basis will result in net investment gains on the actuarial value of assets after June 30, 2015. Item 9 in Exhibit G shows how, under the asset smoothing method, the $229.2 million in unrecognized gains will be recognized in the next 6 years.

  The deferred gains of $229.2 million represent 1.6% of the market value of assets as of June 30, 2015. Unless offset by future investment losses or other unfavorable experience, the recognition of the $229.2 million market gains is expected to have an impact on the System's future funded percentage and contribution rate requirements. This potential impact may be illustrated as follows:

  - If the retiree health plan component of the deferred gains were recognized immediately in the actuarial value of assets, the funded percentage would increase from 79.67% to 80.99%.
  - If the retiree health plan component of the deferred gains were recognized immediately in the valuation value of assets, the aggregate employer rate (payable on July 15) would decrease from 4.74% to about 4.65% of payroll.

- The actuarial valuation report as of June 30, 2015 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 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, 2016, or

  (3) Throughout the year (i.e., the City will pay contributions at the end of every pay period).

- Consistent with our recommendation since the inception of Tier 2, even though the City will be paying UAAL contributions based on the Tier 2 payroll, the contributions should be maintained on a bookkeeping basis as contributions made to the Tier 1 plan. We believe this treatment is reasonable even though some of those contributions may be allocated to pay off 50% of the UAAL that the City is required to pay to Tier 2. However, we are not recommending that allocation at this time because Segal Consulting would need to work with LACERS to determine the procedure required to ensure that none of those contributions would inadvertently affect the calculation that we would perform in the June 30, 2016 valuation when the Tier 2 members are required, for the first time, to pay the remaining 50% of the UAAL starting on July 1, 2017.

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

SUMMARY OF VALUATION RESULTS

	June 30, 2015	June 30, 2014
Actuarial Accrued Liability (AAL)	$2,646,989,367	$2,662,853,153
Actuarial Value of Assets	2,108,924,651	1,941,224,810
Unfunded Actuarial Accrued Liability	538,064,716	721,628,343
Funded Ratio on Actuarial Value Basis	79.67%	72.90%
Market Value of Assets	2,143,705,809	2,091,334,640
Funded Ratio on Market Value Basis	80.99%	78.54%
Annual Required Contribution (ARC)[1]		
Normal cost (beginning of year)	$62,359,771	$65,077,122
Amortization of the unfunded actuarial accrued liability	27,827,466	41,245,521
Total Annual Required Contribution (beginning of year)	$90,187,237	$106,322,643
Total Annual Required Contribution (July 15)	$90,459,414	$106,643,515
Total Annual Required Contribution (end of each pay period)	$93,508,118	$110,237,663
Projected total payroll[2]	$1,907,664,598	$1,898,064,175
ARC as a percentage of pay (there is a 12-month delay until the rate is effective)[3]		
Beginning of year	4.73%	5.60%
July 15	4.74%	5.62%
End of each pay period	4.90%	5.81%
Total Participants	43,597	43,229
Annual OPEB Cost (AOC) for Coming Year		
Annual Required Contributions (July 15)	$106,643,515	$103,585,288
Interest on Net OPEB Obligations	0	0
ARC Adjustments	0	0
Total Annual OPEB Cost	$106,643,515	$103,585,288
AOC as a percent of pay	5.62%	5.61%

(1) *The June 30, 2014 contribution rates are before 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. Those adjustments no longer apply after the June 30, 2014 valuation.*

(2) *Reflects amount calculated in the pension valuation.*

(3) *A breakdown of the ARC by tier is provided in Chart 4.*

Important Information about Actuarial Valuations

In order to prepare an actuarial valuation, Segal Consulting ("Segal") relies on a number of input items. These include:

- **Plan of benefits** Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan description in this report to confirm that Segal has correctly interpreted the plan of benefits.
- **Participant data** An actuarial valuation for a plan is based on data provided to the actuary by the Retirement Office. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
- **Assets** This valuation is based on the market value of assets as of the valuation date, as provided by the Retirement Office.
- **Actuarial assumptions** In preparing an actuarial valuation, Segal projects the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This projection requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year. In addition, the benefits projected to be paid for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments. The projected benefits are then discounted to a present value, based on the assumed rate of return that is expected to be achieved on the plan's assets. There is a reasonable range for each assumption used in the projection and the results may vary materially based on which assumptions are selected. It is important for any user of an actuarial valuation to understand this concept. Actuarial assumptions are periodically reviewed to ensure that future valuations reflect emerging plan experience. While future changes in actuarial assumptions may have a significant impact on the reported results, that does not mean that the previous assumptions were unreasonable.

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

- The valuation is prepared at the request of LACERS. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial valuation is a measurement of the plan's assets and liabilities at a specific date. Accordingly, except where otherwise noted, Segal did not perform an analysis of the potential range of future financial measures. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.
- If LACERS is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.

- Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. LACERS should look to their other advisors for expertise in these areas.

As Segal Consulting has no discretionary authority with respect to the management or assets of LACERS, it is not a fiduciary in its capacity as actuaries and consultants with respect to LACERS.

October 30, 2015

Actuarial Certification

This is to certify that Segal Consulting (Segal) has conducted an actuarial valuation of certain benefit obligations of Los Angeles City Employees' Retirement System's other postemployment benefit programs as of June 30, 2015, in accordance with generally accepted actuarial principles and practices. In particular, it is our understanding that the assumptions and methods used for funding purposes meet the parameters set by the Actuarial Standards of Practice (ASOPs). Actuarial valuations are performed annually for this other postemployment benefit program with the last valuation completed as of June 30, 2014. The actuarial calculations presented in this report have been made on a basis consistent with our understanding of Governmental Accounting Standard Board (GASB) Statements No. 43 and No. 45 for the determination of the liability for postemployment benefits other than pensions.

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

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

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

Segal prepared all of the supporting schedules in the Actuarial Section of the Comprehensive Annual Financial Report (CAFR) and the supporting schedules in the Financial Section. A listing of supporting schedules Segal prepared for inclusion in the Financial Section as Required Supplementary Information prescribed by GASB Statements No. 43 and 45 and in the Actuarial Section is provided below:

Financial Section
1) Schedule of Funding Progress
2) Schedule of Employer Contributions

Actuarial Section
3) Active Member Valuation Data
4) Retirees and Beneficiaries Added to and Removed from Health Benefits
5) Solvency Test for Health Benefits
6) Schedule of Funding Progress
7) Actuarial Analysis of Financial Experience
8) Actuarial Balance Sheet

Actuarial Certification (continued)

October 30, 2015

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

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

Thomas Bergman, ASA, MAAA, EA
Associate Actuary

Andy Yeung, ASA, MAAA, FCA, EA
Vice President and 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, 2015	**June 30, 2014**
Participant Category		
Current retirees, beneficiaries, and dependents	$1,210,066,527	$1,196,769,321
Current active members	1,924,927,069	1,993,755,009
Terminated members entitled but not yet eligible	42,943,089	41,188,181
Total	$3,177,936,685	$3,231,712,511

		June 30, 2015	**June 30, 2014**
Actuarial Balance Sheet			
The actuarial balance sheet as of the valuation date is as follows:			
	Assets		
1.	Actuarial value of assets	$2,108,924,651	$1,941,224,810
2.	Present value of future normal costs	530,947,318	568,859,358
3.	Unfunded actuarial accrued liability	538,064,716	721,628,343
4.	Present value of current and future assets	$3,177,936,685	$3,231,712,511
	Liabilities		
5.	Actuarial Present Value of total Projected Benefits	$3,177,936,685	$3,231,712,511

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, 2015	June 30, 2014
Participant Category		
Current retirees, beneficiaries, and dependents	$1,210,066,527	$1,196,769,321
Current active members	1,393,979,751	1,424,895,651
Terminated members entitled but not yet eligible*	42,943,089	41,188,181
Total actuarial accrued liability	$2,646,989,367	$2,662,853,153
Unfunded Actuarial Accrued Liability		
Total actuarial accrued liability	$2,646,989,367	$2,662,853,153
Actuarial value of assets	$2,108,924,651	$1,941,224,810
Unfunded actuarial accrued liability	$538,064,716	$721,628,343

Development of Unfunded Actuarial Accrued Liability for the Year Ended June 30, 2015

1.	Unfunded actuarial accrued liability as of June 30, 2014	$721,628,343
2.	Employer normal cost as of June 30, 2014	65,077,122
3.	Expected employer contributions during 2014/2015 fiscal year	106,322,643
4.	Interest	51,028,712
5.	Expected unfunded actuarial accrued liability as of June 30, 2015 (1 + 2 – 3 + 4)	731,411,534
6.	Effect of actual contributions less than expected	6,608,834
7.	Effect of investment gain	-21,885,711
8.	Effect of demographic changes	-516,300
9.	Effect of premiums lower than expected	-216,379,649
10.	Effect of age-adjusted per-capita costs*	38,826,008
11.	Unfunded actuarial accrued liability as of June 30, 2015 (5 + 6 + 7 + 8 + 10)	$538,064,716

* *This is required under the new Actuarial Standards of Practice No. 6, titled, Measuring Retiree Group Benefits Obligations and Determining Retiree Group Benefits Program Periodic Costs or Actuarially Determined Contributions.*

The unfunded actuarial accrued liability may be amortized over periods of up to 30 years. Amortization payments may be calculated as level dollar amounts or as amounts designed to remain level as a percent of a growing payroll base. Los Angeles City Employees' Retirement System has elected to amortize the unfunded actuarial accrued liability using the following rules: The costs associated with the 2009 ERIP have been amortized over 15 years beginning with the June 30, 2009 valuation date. The unfunded actuarial accrued liability as of June 30, 2012 is amortized over a fixed period of 30 years beginning July 1, 2012. Assumption changes resulting from the triennial experience study will be amortized over 20 years.

Health trend and premium assumption changes, plan changes, and gains and losses will be amortized over 15 years.

The recommended contribution is set equal to the greater of the current funding policy amount or the minimum Annual Required Contribution (ARC) as determined by GASB Statements 43 and 45. In this report, the minimum ARC requirement for fiscal year 2016/2017 (due to the application of the GASB 30-year maximum effective amortization period) is greater than the current funding policy amount due to the 15-year amortization of the experience gain base created June 30, 2015.

CHART 3

Table of Amortization Bases

Type	Date Established	Initial Year	Initial Amount	Outstanding Balance	Annual Payment*	Years Remaining
Plan Amendment (2009 ERIP)	06/30/2009	15	$54,735,645	$46,226,133	$5,841,988	9
Combined Base**	06/30/2012	30	597,984,614	634,331,767	34,953,545	27
Experience Loss	06/30/2013	15	16,206,142	15,699,859	1,461,765	13
Change in Assumptions	06/30/2014	20	135,287,549	135,654,578	9,461,134	19
Experience Gain	06/30/2014	15	-101,972,860	-100,500,803	-8,823,091	14
Experience Gain	06/30/2015	15	-193,346,818	-193,346,818	-16,085,695	15
Total				$538,064,716	$27,827,466***	

* *Level percentage of pay.*

** *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.*

*** *Reflects adjustment so that the equivalent single amortization payment is 30 years. Before the adjustment, the payment amount is $26,809,646.*

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 15th.

CHART 4

Determination of Annual Required Contribution (ARC)

Tier 1 - Cost Element	**Determined as of June 30, 2015**		**June 30, 2014[1]**	
	Amount	**Percentage of Compensation**	**Amount**	**Percentage of Compensation**
1. Normal cost	$59,249,618	3.31%	$63,891,750	3.45%
2. Amortization of the unfunded actuarial accrued liability	26,092,737	1.46%[2], [3]	40,251,443	2.17%[2], [3]
3. Total Annual Required Contribution (beginning of year)	$85,342,355	4.77%	$104,143,193	5.62%
4. Projected Payroll[4]	$1,788,743,164		$1,852,318,041	
5. Adjustment for timing (July 15)	$257,555	0.02%	$314,295	0.02%
6. Total Annual Required Contribution (July 15)	$85,599,910	4.79%	$104,457,488	5.64%
7. Adjustment for timing (end of pay period)	$3,142,482	0.18%	$3,834,768	0.21%
8. Total Annual Required Contribution (end of pay period)	$88,484,837	4.95%	$107,977,961	5.83%

(1) *The June 30, 2014 contribution rates are before 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. Those adjustments no longer apply after the June 30, 2014 valuation.*

(2) *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.*

(3) *In developing the UAAL contribution rate, we have combined the UAAL for Tier 1 and Tier 2 and amortized that total UAAL over the total payroll for Tier 1 and Tier 2.*

(4) *Reflects amount calculated in the pension valuation.*

CHART 4 (continued)

Determination of Annual Required Contribution (ARC)

Tier 2 - Cost Element		Determined as of			
		June 30, 2015		June 30, 2014[1]	
		Amount	Percentage of Compensation	Amount	Percentage of Compensation
1.	Normal cost	$3,110,153	2.62%	$1,185,372	2.59%
2.	Amortization of the unfunded actuarial accrued liability	1,734,730	1.46%[2], [3]	994,078	2.17%[2], [3]
3.	Total Annual Required Contribution (beginning of year)	$4,844,883	4.08%	$2,179,450	4.76%
4.	Projected Payroll[4]	$118,921,434		$45,746,134	
5.	Adjustment for timing (July 15)	$14,621	0.01%	$6,577	0.02%
6.	Total Annual Required Contribution (July 15)	$4,859,504	4.09%	$2,186,027	4.78%
7.	Adjustment for timing (end of pay period)	$178,398	0.14%	$80,252	0.18%
8.	Total Annual Required Contribution (end of pay period)	$5,023,281	4.22%	$2,259,702	4.94%

(1) *The June 30, 2014 contribution rates are before 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. Those adjustments no longer apply after the June 30, 2014 valuation.*

(2) *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.*

(3) *In developing the UAAL contribution rate, we have combined the UAAL for Tier 1 and Tier 2 and amortized that total UAAL over the total payroll for Tier 1 and Tier 2.*

(4) *Reflects amount calculated in the pension valuation.*

CHART 4 (continued)

Determination of Annual Required Contribution (ARC)

Combined - Cost Element	Determined as of June 30, 2015		June 30, 2014[1]	
	Amount	Percentage of Compensation	Amount	Percentage of Compensation
1. Normal cost	$62,359,771	3.27%	$65,077,122	3.43%
2. Amortization of the unfunded actuarial accrued liability	27,827,466	1.46%[(2), (3)]	41,245,521	2.17%[(2), (3)]
3. Total Annual Required Contribution (beginning of year)	$90,187,237	4.73%	$106,322,643	5.60%
4. Projected Payroll[4]	$1,907,664,598		$1,898,064,175	
5. Adjustment for timing (July 15)	$272,177	0.01%	$320,872	0.02%
6. Total Annual Required Contribution (July 15)	$90,459,414	4.74%	$106,643,515	5.62%
7. Adjustment for timing (end of pay period)	$3,320,881	0.17%	$3,915,020	0.21%
8. Total Annual Required Contribution (end of pay period)	$93,508,118	4.90%	$110,237,663	5.81%

(1) *The June 30, 2014 contribution rates are before 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. Those adjustments no longer apply after the June 30, 2014 valuation.*

(2) *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.*

(3) *In developing the UAAL contribution rate, we have combined the UAAL for Tier 1 and Tier 2 and amortized that total UAAL over the total payroll for Tier 1 and Tier 2.*

(4) *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			
Cost Element	**June 30, 2015**		**June 30, 2014***	
	Amount	**Percentage of Compensation**	**Amount**	**Percentage of Compensation**
1. Annual Required Contribution (July 15)	$90,459,414	4.74%	$106,643,515	5.62%
2. Interest on Beginning of Year Net OPEB Obligation (NOO)	0	0.00%	0	0.00%
3. ARC adjustment	0	0.00%	0	0.00%
4. Annual OPEB Cost (July 15)	$90,459,414	4.74%	$106,643,515	5.62%

* *The June 30, 2014 contribution rate is before 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. Those adjustments no longer apply after the June 30, 2014 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
2010	$96,511,234	$96,511,234	100.00%
2011	107,395,804	107,395,804	100.00%
2012	115,208,835	115,208,835	100.00%
2013	72,916,729	72,916,729	100.00%
2014	97,840,554	97,840,554	100.00%
2015	100,466,945	100,466,945	100.00%

Required Supplementary Information – Schedule of Employer Contributions

GASB 45

Fiscal Year Ended June 30	Annual OPEB Cost	Actual Contributions	Percentage Contributed
2010	$96,511,234	$96,511,234	100.00%
2011	107,395,804	107,395,804	100.00%
2012	115,208,835	115,208,835	100.00%
2013	72,916,729	72,916,729	100.00%
2014	97,840,554	97,840,554	100.00%
2015	100,466,945	100,466,945	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)]
06/30/2010	$1,425,726,017	$2,233,874,432	$808,148,415	63.82%	$1,817,662,284	44.46%
06/30/2011	1,546,883,749	1,968,707,666	421,823,917	78.57%	1,833,392,381	23.01%
06/30/2012	1,642,373,560	2,292,400,227	650,026,667	71.64%	1,819,269,630	35.73%
06/30/2013	1,734,733,258	2,412,483,968	677,750,710	71.91%	1,846,970,474	36.70%
06/30/2014	1,941,224,810	2,662,853,153	721,628,343	72.90%	1,898,064,175	38.02%
06/30/2015	2,108,924,651	2,646,989,367	538,064,716	79.67%	1,907,664,598	28.21%

* *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)
06/30/2010	$96,511,234	$0	$0	$96,511,234	$96,511,234	$0	$0
06/30/2011	107,395,804	0	0	107,395,804	107,395,804	0	0
06/30/2012	115,208,835	0	0	115,208,835	115,208,835	0	0
06/30/2013	72,916,729	0	0	72,916,729	72,916,729	0	0
06/30/2014	97,840,554	0	0	97,840,554	97,840,554	0	0
06/30/2015	100,466,945	0	0	100,466,945	100,466,945	0	0

VOLATILITY RATIOS

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

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

For LACERS, the current AVR is about 1.12. This means that a 1% asset gain/(loss) (relative to the assumed investment return) translates to about 1.12% of one-year's payroll. Since LACERS amortizes actuarial gains and losses over a period of 15 years, there would be a 0.09% of payroll decrease/(increase) in the required contribution for each 1% asset gain/(loss).

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

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

For LACERS, the current LVR is about 1.39. This is about 24% 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, 2010 – 2015

Year Ended June 30	Asset Volatility Ratio	Liability Volatility Ratio
2010	0.64	1.23
2011	0.80	1.07
2012	0.82	1.26
2013	0.93	1.31
2014	1.10	1.40
2015	1.12	1.39

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 nine valuations can be seen in this chart.

CHART 9

Member Population: 2007 – 2015

Year Ended June 30	Active Participants	Inactive Members	Retired Members and Beneficiaries**	Ratio of Non-Actives to Actives
2007	30,175	607	11,336	0.40
2008	30,236	703	12,004	0.42
2009	30,065	674	11,893	0.42
2010	26,245	806	13,442	0.54*
2011	25,449	813	13,436	0.56
2012	24,917	858	13,431	0.57
2013	24,441	861	13,592	0.59
2014	24,009	955	13,686	0.61
2015	23,895	1,032	14,012	0.63

* *Reflects 2009 Early Retirement Incentive Program.*

** *Excludes retirees and surviving spouses not yet eligible for retiree health benefits.*

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

EXHIBIT A
Summary of Participant Data

	June 30, 2015	June 30, 2014
Retirees*		
Number of non-disabled	11,891	11,612
Number of disabled	324	316
Total number of retirees	12,215	11,928
Average age of retirees	71.8	71.7
Number of spouses	4,658	4,579
Average age of spouses	68.3	68.4
Surviving Spouses*		
Number	1,797	1,758
Average age	79.4	79.1
Active Participants		
Number	23,895	24,009
Average age	48.8	48.8
Average years of service	15.0	15.0
Inactive Vested Participants (excluding those with less than 10 years of service)		
Number	1,032	955
Average age	50.8	51.3

* *Excludes retirees and surviving spouses not receiving retiree health benefits.*

EXHIBIT B
Reconciliation of Participant Data with Pension Valuation

	June 30, 2015	June 30, 2014
Retirees		
Pension valuation	13,217	12,880
Retirees with no subsidy due to service or decision not to enroll	-1,299	-1,236
Deferred retirees eligible for future health benefits	-27	-32
Health valuation	11,891	11,612
Disableds		
Pension valuation	910	900
Disabled with no subsidy due to service or decision not to enroll	-512	-500
Deferred disableds eligible for future health benefits	-74	-84
Health valuation	324	316
Surviving Spouses		
Pension valuation	3,805	3,752
Surviving spouses with no subsidy due to service or decision not to enroll	-1,930	-1,918
Deferred surviving spouses eligible for future health benefits	-78	-76
Health valuation	1,797	1,758
Actives		
Pension valuation	23,895	24,009
Health valuation	23,895	24,009
Inactive Vested		
Pension valuation	6,507	6,031
Inactive vesteds with less than 10 years of service	-5,475	-5,076
Health valuation	1,032	955

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

Year Ended 6/30	No. of New Retirees/ Beneficiaries	Annual Allowances Added*	No. of Retirees/ Beneficiaries Removed	Annual Allowances Removed	No. of Retirees/ Beneficiaries at 6/30	Annual Allowances at 6/30	Percent Increase in Annual Allowances	Average Annual Allowance
2010	2,104	$23,010,841	555	$2,670,987	13,442	$94,208,355	27.5	7,009
2011	431	5,670,390	437	2,774,684	13,436	97,104,061	3.1	7,227
2012	433	-540,583	438	2,516,835	13,431	94,046,643	-3.1	7,002
2013	635	9,263,844	474	2,463,967	13,592	100,846,520	7.2	7,420
2014	616	7,160,148	522	3,047,436	13,686	104,959,232	4.1	7,669
2015	860	10,844,333	534	3,174,045	14,012	112,629,520	7.3	8,038

* *Also reflects changes in subsidies for continuing retirees and beneficiaries.*

EXHIBIT D
Cash Flow Projections

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

Year Ending June 30	Projected Number of Retirees*			Projected Benefit Payments		
	Current	Future	Total	Current	Future	Total
2016	18,670	1,190	19,860	$105,254,511	$8,274,635	$113,529,146
2017	18,167	2,097	20,264	101,693,106	15,536,907	117,230,013
2018	17,633	3,049	20,682	101,925,552	24,430,180	126,355,732
2019	17,078	4,057	21,135	102,393,883	34,609,218	137,003,101
2020	16,516	5,107	21,623	102,128,188	46,376,877	148,505,065
2021	15,941	6,192	22,133	101,774,549	59,459,587	161,234,136
2022	15,361	7,235	22,596	101,601,587	72,989,352	174,590,939
2023	14,774	8,237	23,011	100,678,317	86,429,956	187,108,273
2024	14,183	9,218	23,401	100,048,971	100,189,832	200,238,803
2025	13,581	10,106	23,687	99,281,102	113,270,966	212,552,068

* *Includes spouses of retirees, but excludes those not receiving a subsidy from LACERS.*

EXHIBIT E

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

	June 30, 2015		June 30, 2014	
Contribution income:				
Employer contributions	$481,765,868		$455,658,786	
Employee contributions	207,564,465		204,135,914	
Net contribution income		$689,330,333		$659,794,700
Investment income:				
Interest, dividends and other income	$315,373,999		$297,955,531[1]	
Recognition of capital appreciation	887,268,617		873,017,519[1]	
Less investment and administrative fees	-83,431,256		-72,807,769[1]	
Net investment income		$1,119,211,360		$1,098,165,281
Total income available for benefits		$1,808,541,693		$1,757,959,981
Less benefit payments:				
Payment of benefits	-$838,334,980		-$810,584,271	
Refunds of contributions	-10,120,884		-15,982,650	
Net benefit payments		-$848,455,864[2]		-$826,566,921
Change in reserve for future benefits		$960,085,829		$931,393,060

[1] *Based on information provided by LACERS, these amounts have been reclassified for comparative purposes. Such reclassification had no effect on the previously reported Fiduciary Net Position (i.e., market value of assets) for fiscal year ended June 30, 2014.*

[2] *Includes a transfer of $2,614,765 to the City of Los Angeles Fire and Police Pension Plan due to a change in membership for certain employees in the Office of Public Safety.*

Note: Results may be slightly off due to rounding.

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

	June 30, 2015		June 30, 2014	
Cash equivalents		$520,833,530		$681,628,644
Accounts receivable:				
Investment income	$44,947,780		$41,214,524	
Proceeds from sales of investments	118,813,253		166,513,233	
Other	9,783,949		14,362,275	
Total accounts receivable		$173,544,982		$222,090,032
Investments:				
Fixed Income	$3,589,262,579		$2,860,598,505	
Equities	8,100,719,055		8,617,236,944	
Real Estate and Alternative Investment	1,991,923,845		1,967,891,805	
Other	847,945,965		1,037,019,541	
Total investments at market value		$14,529,851,444		$14,482,746,795
Capital assets		$4,050,199		$2,667,881
Total assets		$15,228,280,155		$15,389,133,352
Less accounts payable:				
Accounts payable and accrued expenses		-$34,950,273	-$17,879,799	
Accrued investment expenses		-9,333,189	-11,993,596	
Purchases of investments		-228,312,951	-400,955,915	
Security lending collateral		-830,923,367	-1,022,532,044	
Total accounts payable		-$1,103,519,780		-$1,453,361,354
Net assets at market value		$14,124,760,375		$13,935,771,998
Net assets at actuarial value		$13,895,589,227		$12,935,503,398
Net assets at valuation value (retiree health)		$2,108,924,651		$1,941,224,810

Note: Results may be slightly off due to rounding.

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

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

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

EXHIBIT G

Determination of Actuarial Value of Assets as of June 30, 2015

		Original Amount	Portion Not Recognized	Amount Not Recognized	
1.	Market value of assets				$14,124,760,375
2.	Calculation of unrecognized return[1]				
	(a) Year ended June 30, 2015	-$707,760,540	6/7	-$606,651,891	
	(b) Year ended June 30, 2014	1,246,285,581	5/7	890,203,986	
	(c) Combined net deferred loss as of June 30, 2013[2]	-81,571,421	4/6	-54,380,947	
	(d) Total unrecognized return				$229,171,148
3.	Preliminary actuarial value: (1) - (2d)				$13,895,589,227
4.	Adjustment to be within 40% corridor				0
5.	Final actuarial value of assets: (3) + (4)				$13,895,589,227
6.	Actuarial value as a percentage of market value: (5) ÷ (1)				98.4%
7.	Market value of health assets				$2,143,705,809
8.	Valuation value of health assets (5) ÷ (1) x (7)				$2,108,924,651
9.	Deferred return recognized in each of the next 6 years:				
	(a) Amount recognized on 6/30/2016				$63,336,911
	(b) Amount recognized on 6/30/2017				63,336,911
	(c) Amount recognized on 6/30/2018				63,336,911
	(d) Amount recognized on 6/30/2019				63,336,911
	(e) Amount recognized on 6/30/2020				76,932,148
	(f) Amount recognized on 6/30/2021				-101,108,649
	(g) Subtotal (may not total exactly due to rounding)				$229,171,148

(1) *Total return minus expected return on a market value basis.*

(2) *Based on action taken by the Board on September 9, 2014, the net unrecognized loss as of June 30, 2013 (i.e., $81,571,421) has been recognized in six level amounts, with four years of recognition remaining after the June 30, 2015 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, 2014 to June 30, 2015[1]

Recommended Contribution as of June 30, 2014[2]	5.81%
Effect of demographic gains and losses[3]	0.04%
Effect of actual contributions less than expected[3]	0.03%
Effect of investment gain[3]	-0.10%
Effect of increase in UAAL rate from lower than expected increase in payroll[3]	0.08%
Effect of limiting UAAL payment to 30 years	0.06%
Effect of premiums lower than expected[3]	-1.23%
Effect of age-adjusted per-capita costs[3]	0.21%
Recommended Contribution as of June 30, 2015[2]	4.90%

[1] *Based on contributions at the end of each pay period.*

[2] *The June 30, 2014 contribution rate is before 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. Those adjustments no longer apply after the June 30, 2014 valuation.*

[3] *Changes in unfunded actuarial accrued liability were amortized over 15 years.*

EXHIBIT I
Solvency Test for OPEB

	Aggregate Actuarial Accrued Liabilities For				Portion of Accrued Liabilities Covered by Reported Assets		
	(1)	(2)	(3)		(1)	(2)	(3)
Valuation Date	Terminated Members	Retirees, Beneficiaries, & Dependents	Active Members	Valuation Value of Retiree Health Assets	Terminated Members	Retirees, Beneficiaries, & Dependents	Active Members
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
06/30/2014	41,188,181	1,196,769,321	1,424,895,651	1,941,224,810	100	100	49
06/30/2015	42,943,089	1,210,066,527	1,393,979,751	2,108,924,651	100	100	61

**Includes liabilities for the 2,393 ERIP-electing members.*

EXHIBIT I

Summary of Required Supplementary Information

Valuation date	June 30, 2015	
Actuarial cost method	Entry Age Cost Method, level percent of salary.	
Amortization method	Level percent of payroll – assuming a 4.00% increase in total covered payroll.	
Amortization period	Multiple layers, closed amortization periods. Actuarial gains/losses are amortized over 15 years. Assumption or method changes are amortized over 20 years. Plan changes, including the 2009 ERIP, are amortized over 15 years. Future ERIPs will be amortized over 5 years. Actuarial surplus is amortized over 30 years. The existing layers on June 30, 2012, except those arising from the 2009 ERIP and the two GASB 25/27 layers for the Retirement Plan, were combined and amortized over 30 years. Health trend and premium assumption changes are amortized over 15 years. The recommended contribution is set equal to the greater of the current funding policy amount or the minimum Annual Required Contribution (ARC) as determined by GASB Statements 43 and 45. In this report, the minimum ARC requirement for fiscal year 2016/2017 (due to the application of the GASB 30-year maximum effective amortization period) is greater than the current funding policy amount due to the 15 year amortization of the experience gain base created June 30, 2015.	
Asset valuation method	Market value of assets less unrecognized returns in each of the last seven years. Unrecognized return is equal to the difference between the actual market return and the expected return on the market value, and is recognized over a seven-year period. The actuarial value of assets cannot be less than 60% or greater than 140% of the market value of assets.	
Actuarial assumptions:		
Investment rate of return	7.50%	
Inflation rate	3.25%	
Real across-the-board salary increase	0.75%	
Projected salary increases	Ranges from 10.50% to 4.40%	
Medical cost trend rate	See table on page 38 in Exhibit II.	
Dental cost trend rate	5.00%	
Medicare Part B premium	2.50% for the 2015-16 fiscal year (calculated based on the actual increase in Medicare B premium from 2015 to 2016). 5.00% for years following the 2016 calendar year.	
Plan membership:	June 30, 2015	June 30, 2014
Current retirees, beneficiaries, and dependents receiving benefits	18,670	18,265
Current active participants	23,895	24,009
Terminated participants entitled but not yet eligible	1,032	955
Total	43,597	43,229

EXHIBIT II

Actuarial Assumptions and Actuarial Cost Method

Rationale for Assumptions: The information and analysis used in selecting each assumption that has a significant effect on this actuarial valuation is shown in the July 1, 2011 through June 30, 2014 Actuarial Experience Study dated October 8, 2014. Unless otherwise noted, all actuarial assumptions and methods shown below apply to both Tier 1 and Tier 2 members. These assumptions have been adopted by the Board.

Measurement Date: June 30, 2015

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

Post-Retirement Mortality Rates:

Healthy Members and All Beneficiaries: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set back one year for males and with no setback for females.

Disabled Members: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set forward seven years for males and set forward eight years for females.

The above mortality tables contain about a 10% margin, based on actual to expected deaths, as a provision appropriate to reasonably anticipate future mortality improvement, based on a review of mortality experience as of the measurement date.

Termination Rates Before Retirement:

Pre-Retirement Mortality: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set back one year for males and with no setback for females.

	Rate (%)	
Age	**Disability**	**Termination***
25	0.01	5.75
30	0.03	5.75
35	0.05	4.85
40	0.09	3.50
45	0.15	2.70
50	0.19	2.50
55	0.20	2.35
60	0.20	2.25

* *Rates for members with five or more years of service. Termination rates are zero for members eligible to retire.*

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

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

Retirement Rates:

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

Retirement Age and Benefit for Inactive Vested Participants:	Assume retiree health benefit will be paid at the later of age 58 or the current attained age.
Exclusion of Inactive Vested:	Inactive vested with less than 10 years of service are excluded.
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.
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.
Net Investment Return:	7.50%
Salary Increases:	Inflation: 3.25%; plus additional 0.75% "across the board" salary increases (other than inflation); plus the following merit and promotional increases:

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

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

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

Per Capita Cost Development: The assumed costs on a composite basis are the future costs of providing postemployment health care benefits at each age. To determine the assumed costs on a composite basis, historical premiums are reviewed and adjusted for increases in the cost of health care services.

Maximum Dental Subsidy

Carrier	Participation Percent	Monthly 2015-2016 Fiscal Year Subsidy
Delta Dental PPO	78.1%	$43.24
DeltaCare USA HMO	21.9%	$12.04

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

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

2015-2016 Fiscal Year		Single Party			Married/With Domestic Partner			Eligible Survivor		
CARRIER	Observed and Assumed Election Percent	Monthly Premium*	Maximum Subsidy**	**Subsidy**	Monthly Premium*	Maximum Subsidy**	**Subsidy**	Monthly Premium*	Maximum Subsidy**	**Subsidy**
Kaiser HMO	**61.6%**	$767.95	$1,580.08	**$767.95**	$1,535.90	$1,580.08	**$1,535.90**	$767.95	$767.95	**$767.95**
Anthem Blue Cross PPO	**21.8%**	$1,072.83	$1,580.08	**$1,072.83**	$2,141.19	$1,580.08	**$1,580.08**	$1,072.83	$767.95	**$767.95**
Anthem Blue Cross HMO	**16.6%**	$959.12	$1,580.08	**$959.12**	$1,913.76	$1,580.08	**$1,580.08**	$959.12	$767.95	**$767.95**

* With the exception of Kaiser, the amounts above reflect the inclusion of the vision insurance plan premium.

** The amounts shown in the tables above apply to Tier 1 members only. For Tier 2 members hired on or after July 1, 2013, the medical plan will be for single coverage and for retiree only. In addition, that maximum subsidy will be set at an amount equal to the lowest-cost single-party plan for those not enrolled in Medicare Parts A and B ($767.95 per month for 2015-2016).

Participant Eligible for Medicare A & B

2015-2016 Fiscal Year		Single Party			Married/With Domestic Partner			Eligible Survivor		
CARRIER	Observed and Assumed Election Percent	Monthly Premium*	Maximum Subsidy**	**Subsidy**	Monthly Premium*	Maximum Subsidy**	**Subsidy**	Monthly Premium*	Maximum Subsidy**	**Subsidy**
Kaiser Senior Advantage HMO	**58.1%**	$232.13	$232.13	**$232.13**	$464.25	$464.25	**$464.25**	$232.13	$232.13	**$232.13**
Anthem Blue Cross Medicare Supplement	**29.9%**	$505.48	$505.48	**$505.48**	$1,006.49	$1,000.73	**$1,000.73**	$505.48	$505.48	**$505.48**
UHC Medicare Adv. HMO for California***	**12.0%**	$253.10	$253.10	**$253.10**	$501.73	$501.73	**$501.73**	$253.10	$253.10	**$253.10**

* With the exception of Kaiser, the amounts above reflect the inclusion of the vision insurance plan premium.

** The amounts shown in the tables above apply to Tier 1 members only. For Tier 2 members hired on or after July 1, 2013, the maximum medical plan premium subsidy will be for single coverage and for retiree only (for example, $232.13 and $505.48 per month for Kaiser HMO and Blue Cross Medicare Supplement, respectively in 2015-2016).

*** Rates for CA plan.

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

	Single Party	Married/With Domestic Partner	Eligible Survivor
Under 65 – All Plans	$1,190.00	$1,190.00	$593.62
Over 65			
Kaiser HMO	$203.27	$406.54	$203.27
Blue Cross Medicare Supplement	$478.43	$595.60	$478.43
UHC Medicare Adv. HMO for California	$219.09	$433.93	$219.09

Adjustments to per-capita costs (as shown on page 35) based on age, gender, and status, are as follows:

	Retiree		Spouse	
Age	Male	Female	Male	Female
55	0.8981	0.9272	0.7068	0.8006
60	1.0666	0.9995	0.9462	0.9285
64	1.2237	1.0603	1.1945	1.0451
65	0.9175	0.7799	0.9175	0.7799
70	1.0634	0.8404	1.0634	0.8404
75	1.1459	0.9046	1.1459	0.9046
80+	1.2340	0.9753	1.2340	0.9753

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

* *Inactive members are assumed to elect coverages at 50% of the rates shown above.*

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

Health Care Cost Subsidy Trend Rates:

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

Trend is to be applied to premium for shown fiscal year to calculate next fiscal year's projected premium. For example, the projected single party Kaiser non-Medicare premium for 2016-2017 would be (1 + 0.69%) x $767.95 = $773.25 (before applying the age, gender, and status adjustment factors as shown on page 36).

First Fiscal Year (July 1, 2015 through June 30, 2016)

PLAN	Anthem Blue Cross PPO, Under Age 65	Anthem Blue Cross Medicare Supplement	Kaiser HMO, Under Age 65	Kaiser Senior Advantage	Anthem Blue Cross HMO, Under 65	UHC Medicare Adv. HMO
Trend to be applied to 2015-2016 Fiscal Year premium	3.38%	-0.26%	0.69%	2.38%	7.99%	4.85%

	Trend (Approx.)		The fiscal year trend rates are based on the following calendar year trend rates: Trend (applied to calculate following year premium)		
Fiscal Year	Medicare	Non-Medicare	Calendar Year	Non-Medicare	Medicare
2016-2017	6.63%	6.63%	2016	6.75%	6.75%
2017-2018	6.38%	6.38%	2017	6.50%	6.50%
2018-2019	6.13%	6.13%	2018	6.25%	6.25%
2019-2020	5.88%	5.88%	2019	6.00%	6.00%
2020-2021	5.63%	5.63%	2020	5.75%	5.75%
2021-2022	5.38%	5.38%	2021	5.50%	5.50%
2022-2023	5.13%	5.13%	2022	5.25%	5.25%
2023 and later	5.00%	5.00%	2023 and later	5.00%	5.00%

Dental Premium Trend	5.00% for all years
Medicare Part B Premium Trend	2.50% for the 2015-16 fiscal year (calculated based on the actual increase in Medicare B premium from 2015 to 2016). 5.00% for years following the 2016 calendar year.

Health Care Reform:	As previously directed by LACERS, we have not reflected in the current valuation the impact of potential excise tax imposed by the Affordable Care Act (ACA) and related statues on certain health plans in calculating the contribution rates for the employer. We understand that the recently adopted Statements No. 74 and 75 by the Governmental Accounting Standards Board (GASB) for financial reporting purposes is expected to require the inclusion of the excise tax in the liability. Statement No. 74 is effective for fiscal years beginning after June 15, 2016 for plan reporting and Statement No. 75 is effective for fiscal years beginning after June 15, 2017 for employer reporting
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:	Starting premium costs and first year trends were revised to reflect 2016 calendar year premium 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(§4.1002(a)) : All employees who became members of the Retirement System before July 1, 2013, and certain non-Tier 2 employees who became members of the Retirement System on or after July 1, 2013.

Tier 2(§4.1052(a)): All employees who became members of the Retirement System on or after July 1, 2013, except as provided otherwise in Section 4.1002.1 of the Los Angeles Administrative Code.

Benefit Eligibility:

Tier 1 (§4.1111(a))

and Tier 2 (§4.1121(a)): Retired age 55 or older with at least 10 years of service (including deferred vested members who terminate employment and receive a retirement benefit from LACERS), or if retirement date is between October 2, 1996, and September 30, 1999 at age 50 or older with at least 30 years of service. Benefits are also payable to spouses, domestic partners, or other qualified dependents while the retiree is alive. Please note that the health subsidy is not payable to a disabled retiree before the member reaches age 55.

Medical Subsidy for Members Not Subject to Cap:

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

Tier 1 (§4.1111(b)): The System will pay 4% of the maximum health subsidy (limited to actual premium) for each year of Service Credit, up to 100% of the maximum health subsidy. As of July 1, 2015, the maximum health subsidy is $1,580.08 per month; no increase for calendar year 2016.

Tier 2 (§4.1121(c)): The System will pay 40% of the maximum health subsidy (limited to actual premium) for a retiree with 10 years of service credit and an additional 3% for each additional year of Service Credit, up to 100% of the maximum health subsidy. As of July 1, 2015, the maximum health subsidy is $787.87 per month and will decrease to $748.03 on January 1, 2016.

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

Tier 1 (§4.1111(e)) and Tier 2 (§4.1121(d)): For retirees, a maximum health subsidy limited to the highest approved single-party monthly premium of the plan per §4.1112(d) in which the member is enrolled, is provided subject to the following vesting schedule:

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

Subsidy Cap for Tier 1: As of the June 30, 2011 valuation, the retiree health benefits program was changed to cap 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 capped subsidy is different for Medicare and non-Medicare retirees.

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

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

Dependents:

Tier 1 (§4.1122(e)(4)): An additional amount is added for coverage of dependents which shall not exceed the amount provided to a retiree not enrolled in Medicare Parts A and B and covered by the same medical plan with the same years of service. The combined member and dependent subsidy shall not exceed the actual premium.

Tier 2 (§4.1121(d)(4)): None of the subsidy may be applied toward coverage for dependents.

Dental Subsidy for Members:

Tier 1 (§4.1114(b)):	The System will pay 4% of the maximum dental subsidy (limited to actual premium) for each year of Service Credit, up to 100% of the maximum dental subsidy. As of July 1, 2015, the maximum dental subsidy is $43.24 per month; no increase for calendar year 2016. There is no subsidy available to spouses or domestic partners. There is also no reimbursement for dental plans not sponsored by the System.
Tier 2 (§4.1124(b)):	The System will pay 40% of the maximum dental subsidy (limited to actual premium) for a retiree with 10 years of service credit and an additional 3% for each additional year of Service Credit, up to 100% of the maximum dental subsidy. As of July 1, 2015, the maximum dental subsidy is $43.24 per month; no increase for calendar year 2016.

Medicare Part B Subsidy for Members:

Tier 1 (§4.1113) and Tier 2 (§4.1123):	If a Retiree is covered by both Medicare Parts A and B, and enrolled in a LACERS medical plan or participates in the LACERS Retiree Medical Premium Reimbursement Program, LACERS will reimburse the retiree the basic Medicare Part B premium.

Surviving Spouse Subsidy

Tier 1 (§4.1115)	The surviving spouse or domestic partner will be entitled to a health subsidy (limited to the actual single-party premium) based on the member's years of service and the surviving dependent's eligibility for Medicare.
Under Age 65 or Over Age 65 And Only Enrolled in Medicare Part B:	The maximum health subsidy available for survivors is the Kaiser single-party premium ($787.87 per month as of July 1, 2015, decreasing to $748.03 on January 1, 2016) 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 of Service	Vested Percentage
10-14	75%
15-19	90%
20+	100%

Surviving Spouse Subsidy For Tier 2:

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

EXHIBIT IV

Definitions of Terms

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

Assumptions or Actuarial Assumptions:	The estimates on which the cost of the Plan is calculated including: (a) Investment return — the rate of investment yield that the Plan will earn over the long-term future; (b) Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates; (c) Retirement rates — the rate or probability of retirement at a given age; (d) Turnover rates — the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.
Actuarial Present Value of Total Projected Benefits (APB):	Present value of all future benefit payments for current retirees and active employees taking into account assumptions about demographics, turnover, mortality, disability, retirement, health care trends, and other actuarial assumptions.
Normal Cost:	The amount of contributions required to fund the benefit allocated to the current year of service.
Actuarial Accrued Liability For Actives:	The equivalent of the accumulated normal costs allocated to the years before the valuation date.
Actuarial Accrued Liability For Retirees:	The single sum value of lifetime benefits to existing retirees. This sum takes account of life expectancies appropriate to the ages of the retirees and of the interest which the sum is expected to earn before it is entirely paid out in benefits.

Actuarial Value of Assets (AVA):	The value of assets used by the actuary in the valution. These may be at market value or some other method used to smooth variations in market value from one valuation to the next.
Funded Ratio:	The ratio AVA/AAL.
Unfunded Actuarial Accrued Liability (UAAL):	The extent to which the actuarial accrued liability of the Plan exceeds the assets of the Plan. There is a wide range of approaches to paying off the unfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.
Amortization of the Unfunded Actuarial Accrued Liability:	Payments made over a period of years equal in value to the Plan's unfunded actuarial accrued liability.
Investment Return (discount rate):	The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next. If the plan is funded on a pay-as-you-go basis, the discount rate is tied to the expected rate of return on day-to-day employer funds.
Covered Payroll:	Annual reported salaries for all active participants on the valuation date.
ARC as a Percentage of Covered Payroll:	The ratio of the annual required contribution to covered payroll.
Health Care Cost Trend Rates:	The annual rate of increase in net claims costs per individual benefiting from the Plan.
Annual Required Contribution (ARC):	The ARC is equal to the sum of the normal cost and the amortization of the unfunded actuarial accrued liability.

Net OPEB Obligation (NOO):	The NOO is the cumulative difference between the annual OPEB cost and actual contributions made. If the plan is not pre-funded, the actual contribution would be equal to the annual benefit payments less retiree contributions.
Annual OPEB Cost (AOC):	Annual OPEB cost is the measure required by GASB 45 of a sole or agent employer's "cost" of participating in an OPEB plan. When an employer has no net OPEB obligation, annual OPEB cost is equal to the ARC. When a net OPEB obligation has a liability (positive) balance, annual OPEB cost is equal to (a) the ARC, plus (b) one year's interest on the beginning balance of the net OPEB obligation, less (c) an adjustment to the ARC to offset, approximately, the amount included in the ARC for amortization of the past contribution deficiencies. When a net OPEB obligation has an asset (negative) balance, the interest adjustment should be deducted from and the ARC adjustment should be added to the ARC, to determine annual OPEB cost.
ARC Adjustment:	The ARC adjustment is an amortization payment based on the prior year NOO. The purpose of the interest and ARC adjustments is to avoid "double-counting" annual OPEB cost and liabilities. Without the adjustments, annual OPEB cost and the net OPEB obligation (liability) would be overstated by the portion of the amortization amount previously recognized in annual OPEB cost. With the adjustments, annual OPEB cost should be approximately equal to the ARC that would have been charged if all prior ARCs had been paid in full, plus one year's interest on the net OPEB obligation.
Employer Contributions:	For the purposes of GASB 43/45, an employer has contributed to an OPEB plan if the employer has (a) provided benefits directly to retired plan members or their beneficiaries, (b) paid insurance premiums to insure the payment of benefits, or (c) irrevocably transferred assets to a qualifying trust, or equivalent arrangement, in which plan assets are dedicated to providing benefits to retirees and their beneficiaries in accordance with the terms of the plan and are legally protected from creditors of the employer(s) or plan administrator.

EXHIBIT V

Accounting Requirements

The Governmental Accounting Standards Board (GASB) issued Statement Number 43 -- *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans,* and Statement Number 45 – *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions.* Under these statements, all state and local government entities that provide other 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 unless those limits clearly translate into benefit limits on the substantive plan being valued.

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

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

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

The calculation of an accounting obligation does not, in and of itself, imply that there is any legal liability to provide the benefits valued, nor is there any implication that the Employer is required to implement a funding policy to satisfy the projected expense.

Actuarial calculations reflect a long-term perspective, and the methods and assumptions use techniques designed to reduce short-term volatility in accrued liabilities and the actuarial value of assets, if any.

Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events far into the future, and the actuarially determined amounts are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future

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Segal Consulting

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October 30, 2015

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, 2015

Dear Board Members:

We have developed our recommended contribution rates for the voluntary Family Death Benefit Plan ("Plan") as of June 30, 2015. These rates are effective for the two plan years beginning July 1, 2016 and ending June 30, 2018. The last review of the Plan was conducted as part of the June 30, 2013 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, 2015 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, 2016). Based on this rate, the estimated total annual contributions would be about $296,000 ($148,000 each for the members and the City) for plan year 2015/2016.
- 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 exceptions of the Reserve for Member Contributions and the Annuity Reserve). Since the future payment liability for this program has been discounted at the valuation assumed earnings rate of 7.50% per year for this valuation, we believe the crediting procedure is consistent with the valuation discount rate assumption.

- The plan does not currently have a formal policy on how the monthly premium rate should be adjusted to reflect any funding surplus. Based on discussions with LACERS staff, Segal has been directed to provide some possible alternatives, before the next biennial valuation as of June 30, 2017, on how the monthly premium rate could be adjusted in years when there is a surplus.
- In the interim and before presenting these alternatives to the Board, we recommend that the current employee monthly rate of $3.70 be maintained for the two plan years beginning July 1, 2016 and ending June 30, 2018.

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, 2015, the Plan's term cost is $387,590 for the 3,331 active members participating at June 30, 2015. This translates to an employee and City monthly rate of $4.85 each. However, the Plan is in a surplus position as of June 30, 2015, with the Plan's actuarial value of assets of $15,402,402[1] exceeding the liability reserve of $8,378,370 by $7,024,032. This surplus is about $1 million higher than the surplus as of the last review as of June 30, 2013.

We anticipate that the surplus reserve of $7,024,032 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, 2016. As surplus is depleted at the rate of about $92,000 per year, before even including actual investment return on the surplus assets of $7,024,032, there would still be a positive residual surplus remaining from the June 30, 2015 surplus balance of $7,024,032, at June 30, 2018.

As noted, all of the calculations are based on the June 30, 2015 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] If the Plan's June 30, 2015 market value of assets of $15,656,519 were to be used in the above analysis, the Plan would have a surplus of $7,278,149 instead of $7,024,032.

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.

4) 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[2].

5) 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 Actuary

DNA/bqb

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[2] Larger amounts are available if the surviving spouse begins receiving payments after age 60.

Segal Consulting

Los Angeles City Employees' Retirement System

Governmental Accounting Standards (GAS) 67
Actuarial Valuation as of June 30, 2015

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October 30, 2015

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

Dear Board Members:

We are pleased to submit this Governmental Accounting Standards (GAS) 67 Actuarial Valuation as of June 30, 2015. It contains various information that will need to be disclosed in order to comply with GAS 67.

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

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

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

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

Sincerely,

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

By:

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

DNA/gxk

SECTION 1

VALUATION SUMMARY

SECTION 2

GASB 67 INFORMATION

Purpose

This report has been prepared by Segal Consulting to present certain disclosure information required by Statement No. 67 of the Governmental Accounting Standards Board as of June 30, 2015. This valuation is based on:

- The benefit provisions of the Pension Plan, as administered by the Board of Administration;
- The characteristics of covered active members, inactive vested members, and retired members and beneficiaries as of June 30, 2015, provided by LACERS;
- The assets of the Plan as of June 30, 2015, provided by LACERS;
- Economic assumptions regarding future salary increases and investment earnings; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc.

Significant Issues in Valuation Year

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

- The Governmental Accounting Standards Board (GASB) rules only redefine pension liability and expense for financial reporting purposes, and do not apply to contribution amounts for pension funding purposes. Employers and plans can still develop and adopt funding policies under current practices.
- When measuring pension liability, GASB uses the same actuarial cost method (Entry Age) and the same type of discount rate (expected return on assets) as LACERS uses for funding. This means that the Total Pension Liability (TPL) measure for financial reporting shown in this report is determined on the same basis as LACERS' Actuarial Accrued Liability (AAL) measure for funding. We note that the same is generally true for the Normal Cost component of the annual plan cost for funding and financial reporting.
- The Net Pension Liability (NPL) is equal to the difference between the TPL and the Plan's Fiduciary Net Position. The Plan's Fiduciary Net Position is equal to the market value of assets and therefore, the NPL measure is very similar to an Unfunded Actuarial Accrued Liability (UAAL) calculated on a market value basis.
- The NPL increased from $4.46 billion as of June 30, 2014 to $4.99 billion as of June 30, 2015 mainly due to the approximate return on the market value of assets of 2.5% during 2014/2015 that was less than the assumption of 7.50%

used in the June 30, 2014 valuation (that loss was about $0.6 billion). Changes in these values during the last two fiscal years ending June 30, 2014 and June 30, 2015 can be found in Exhibit 3.

- The NPLs measured as of June 30, 2015 and 2014 have been determined from the actuarial valuations as of June 30, 2015 and June 30, 2014, respectively.
- The discount rate used to determine the TPL and NPL as of June 30, 2015 and 2014 was 7.50%, following the same assumption used by the System in the pension funding valuations as of the same dates. Details on the derivation of the discount rate can be found in Exhibit 5 of Section 2. Various other information that is required to be disclosed can be found throughout Exhibits 1 through 4 in Section 2.

Summary of Key Valuation Results

	2015	2014
Disclosure elements for fiscal year ending June 30:		
Service cost[1]	$322,380,251	$317,185,480
Total Pension Liability	16,909,996,380	16,248,853,099
Plan Fiduciary Net Position	11,920,570,019	11,791,079,473
Net Pension Liability	4,989,426,361	4,457,773,626
Schedule of contributions for fiscal year ending June 30:		
Actuarially determined contributions	$381,140,923	$357,649,232
Actual contributions	381,140,923	357,649,232
Contribution deficiency (excess)	0	0
Demographic data for plan year ending June 30:		
Number of retired members and beneficiaries	17,932	17,532
Number of vested terminated members[2]	6,507	6,031
Number of active members	23,895	24,009
Key assumptions as of June 30:		
Investment rate of return	7.50%	7.50%
Inflation rate	3.25%	3.25%
Projected salary increases[3]	Ranges from 10.50% to 4.40%, based on years of service	Ranges from 10.50% to 4.40%, based on years of service

[1] *The service cost is always based on the previous year's assumptions, meaning the June 30, 2015 value is based on those assumptions shown as of June 30, 2014, whereas the June 30, 2014 value is based on the June 30, 2013 assumptions shown below:*

Key assumptions as of June 30:		**2013**
Investment rate of return		7.75%
Inflation rate		3.50%
Projected salary increases*	Ranges from 11.25% to 4.65%, based on years of service for members with under 5 years of service and on age for members with 5 or more years of service	

* Includes inflation at 3.50% plus real across the board salary increases of 0.75% plus merit and promotional increases.

[2] *Includes terminated members due a refund of employee contributions.*

[3] *Includes inflation at 3.25% plus real across the board salary increase of 0.75% plus merit and promotional increases.*

EXHIBIT 1

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

Plan Description

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

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

Plan membership. At June 30, 2015, pension plan membership consisted of the following:

Retired members or beneficiaries currently receiving benefits	17,932
Vested terminated members entitled to, but not yet receiving benefits[1]	6,507
Active members	23,895
Total	48,334

[1] *Includes terminated members due a refund of employee contributions.*

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

Tier 1 members are eligible to retire for service with a normal retirement benefit once they attain the age of 70, or the age of 60 with 10 or more years of continuous service, or the age of 55 with 30 or more years of service. Tier 2 members are eligible to retire for service with a normal retirement benefit once they attain the age of 70, or the age of 65 with 10 or more years of continuous service.

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

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

Age	Early Retirement Reduction Factor
45	0.6250
50	0.7750
55	0.9250
60	1.0000

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

Age	Retirement Factor	Age	Retirement 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%

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

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

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

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

The City of Los Angeles contributes to the retirement plan based upon actuarially determined contribution rates adopted by the Board of Administration. Employer contribution rates are adopted annually based upon recommendations received from LACERS' actuary after the completion of the annual actuarial valuation. The average employer contribution rate as of June 30, 2015 (based on the June 30, 2013 valuation) was 20.76% of compensation[1].

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

[1] *After adjustments to phase in over five years the impact of new actuarial assumptions (as a result of the June 30, 2011 Triennial Experience Study) on the City's contributions.*

EXHIBIT 2

Net Pension Liability

The components of the Net Pension Liability of LACERS are as follows:

	June 30, 2015	June 30, 2014
Total Pension Liability	$16,909,996,380	$16,248,853,099
Plan Fiduciary Net Position	-11,920,570,019	-11,791,079,473
System's Net Pension Liability	$4,989,426,361	$4,457,773,626
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	70.49%	72.57%

The Net Pension Liability was measured as of June 30, 2015 and 2014 and determined based upon the Plan Fiduciary Net Position (plan assets) and Total Pension Liability from actuarial valuations as of June 30, 2015 and 2014, respectively.

Actuarial assumptions. The Total Pension Liabilities as of June 30, 2015 and June 30, 2014 were determined by actuarial valuations as of June 30, 2015 and June 30, 2014, respectively. The actuarial assumptions used in this June 30, 2015 valuation were based on the results of an experience study for the period from July 1, 2011 through June 30, 2014. They are the same as the assumptions used in the June 30, 2015 funding actuarial valuation for LACERS. The assumptions are outlined on page 9 of this report. In particular, the following actuarial assumptions were applied to all periods included in the measurement:

Inflation	3.25%
Salary increases	Ranges from 10.50% to 4.40% based on years of service, including inflation
Investment rate of return	7.50%, net of pension plan investment expense, including inflation
Other assumptions	Same as those used in the June 30, 2015 actuarial valuation

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

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

Discount rate: The discount rate used to measure the Total Pension Liability was 7.50% as of June 30, 2015 and June 30, 2014. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the actuarially determined contribution rates. For this purpose, only employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs for future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the pension plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments for current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability as of both June 30, 2015 and June 30, 2014.

Sensitivity of the Net Pension Liability to changes in the discount rate. The following presents the Net Pension Liability of LACERS as of June 30, 2015, calculated using the discount rate of 7.50%, as well as what LACERS' Net Pension Liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.50%) or 1-percentage-point higher (8.50%) than the current rate:

	1% Decrease (6.50%)	Current Discount (7.50%)	1% Increase (8.50%)
Net Pension Liability as of June 30, 2015	$7,243,147,264	$4,989,426,361	$3,113,888,757

EXHIBIT 3

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

	2015	2014
Total Pension Liability		
Service cost	$322,380,251	$317,185,480
Interest	1,215,151,439[(1)]	1,149,966,081[(2)]
Change of benefit terms	0	0
Differences between expected and actual experience	-135,821,076	-164,247,475
Changes of assumptions	0	785,439,114
Benefit payments, including refunds of employee contributions	-740,567,333[(3)]	-721,153,263
Net change in Total Pension Liability	$661,143,281	$1,367,189,937
Total Pension Liability – beginning	16,248,853,099	14,881,663,162
Total Pension Liability – ending (a)	$16,909,996,380	$16,248,853,099
Plan Fiduciary Net Position		
Contributions – employer	$381,140,923	$357,649,232
Contributions – employee	202,462,864	203,975,276
Net investment income	306,980,390	1,810,782,123
Benefit payments, including refunds of employee contributions	-740,567,333[(3)]	-721,153,263
Administrative expense	-15,859,888	-12,372,426
Other[(4)]	-4,666,410	-2,287,567
Net change in Plan Fiduciary Net Position	$129,490,546	$1,636,593,375
Plan Fiduciary Net Position – beginning	11,791,079,473	10,154,486,098
Plan Fiduciary Net Position – ending (b)	$11,920,570,019[(5)]	$11,791,079,473
System's Net Pension Liability – ending (a) – (b)	$4,989,426,361	$4,457,773,626
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	70.49%	72.57%
Covered-employee payroll[(6)]	$1,835,637,409	$1,802,931,195
Plan Net Pension Liability as percentage of covered-employee payroll	271.81%	247.25%

Notes to Exhibit 3

(1) *Excludes interest on the portion of the benefit payments attributable to the transfer to the City of Los Angeles Fire and Police Pension Plan (see note 3 below), since that transfer was made on July 24, 2015.*

(2) *Based on clarification provided by LACERS subsequent to the completion last year's report, we understand that the transfer of $2,287,567 during fiscal year 2013/2014 from the (Pension Plan's) Reserve for Member Contributions to the (non-Pension Plan related) Larger Annuity Reserve (referenced as "Other (Transfer to Larger Annuity Reserve)" above) represents voluntary contributions of members retired during the reporting fiscal year including funds that were transferred from members' deferred compensation accounts into the Pension Plan just prior to those members' retirements. Those funds were then transferred to the Larger Annuity Reserve to pay the additional benefits payable from that plan. Contributions at those amounts were included as "Contributions – employee" above and treated by Segal Consulting as if they were made to the Pension Plan. Note that we have not restated the Total Pension Liability as of June 30, 2014 by reclassifying these amounts as benefit payments, to reflect the clarification provided by LACERS.*

(3) *Includes a transfer of $2,138,996 to the City of Los Angeles Fire and Police Pension Plan due to a change in membership for certain employees in the Office of Public Safety.*

(4) *Beginning of year segregation of a portion of the Reserve for Member Contributions into the (non-pension related) Reserve for Larger Annuity Contributions ($4,666,410). The Reserve for Larger Annuity Contributions has increased to $5,199,707 as of June 30, 2015.*

(5) *Excludes the Reserve for Larger Annuity Contributions (Acct. 256), based on directions from LACERS. This reserve has been separately identified by LACERS for the first time in the June 30, 2015 valuation, pursuant to a suggestion made by Segal. The amount in Acct. 256 was $4,666,410 as of June 30, 2014 and $5,199,707 as of June 30, 2015, on a market value basis.*

(6) *Covered-employee payroll represents the collective total of the LACERS pensionable wages of all LACERS membership tiers.*

EXHIBIT 4

Schedule of LACERS' Contributions – Last Ten Fiscal Years

Year Ended June 30	Actuarially Determined Contributions	Contributions in Relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered-Employee Payroll[1]	Contributions as a Percentage of Covered-Employee Payroll
2006	$227,740,600	$227,740,600	$0	$1,602,619,746	14.21%
2007	277,516,400	277,516,400	0	1,646,055,902	16.86%
2008	288,119,041	288,119,041	0	1,741,849,669	16.54%
2009	274,554,786	274,554,786	0	1,832,795,577	14.98%
2010	258,642,795	258,642,795	0	1,827,864,283	14.15%
2011	303,560,953	303,560,953	0	1,678,059,440	18.09%
2012	308,539,905	308,539,905	0	1,715,197,133	17.99%
2013	346,180,852	346,180,852	0	1,736,112,598	19.94%
2014	357,649,232	357,649,232	0	1,802,931,195	19.84%
2015	381,140,923	381,140,923	0	1,835,637,409	20.76%

[1] *Covered-employee payroll represents the collective total of the LACERS pensionable wages of all LACERS membership tiers.*

Notes to Exhibit 4

Methods and assumptions used to establish "actuarially determined contribution" rates:		
Valuation date	Actuarially determined contribution rates are calculated as of June 30, two years prior to the end of the fiscal year in which contributions are reported	
Actuarial cost method	Entry Age Actuarial Cost Method, level percent of salary	
Amortization method	Level percent of payroll – assuming a 4.00% increase in total covered payroll.	
Amortization period	Multiple layers, closed amortization periods. Actuarial gains/losses are amortized over 15 years. Assumption or method changes are amortized over 20 years. Plan changes, including the 2009 ERIP, are amortized over 15 years. Future ERIPs will be amortized over 5 years. Actuarial surplus is amortized over 30 years. The existing layers on June 30, 2012, except those arising from the 2009 ERIP and the two GASB 25/27 layers, were combined and amortized over 30 years.	
Asset valuation method	Market value of assets less unrecognized returns in each of the last seven years. Unrecognized return is equal to the difference between the actual market return and the expected return on the market value, and is recognized over a seven-year period. The actuarial value of assets cannot be less than 60% or greater than 140% of the market value of assets.	
Actuarial assumptions:	June 30, 2015	June 30, 2014
Investment rate of return	7.50%	7.50%
Inflation rate	3.25%	3.25%
Real across-the-board salary increase	0.75%	0.75%
Projected salary increases*	Ranges from 10.50% to 4.40%, based on years of service.	Ranges from 10.50% to 4.40%, based on years of service.
Cost of living adjustments	3.00% for Tier 1; 2.00% for Tier 2 (actual increases are contingent upon CPI increases with a 3.00% maximum for Tier 1 and a 2.00% maximum for Tier 2)	3.00% for Tier 1; 2.00% for Tier 2 (actual increases are contingent upon CPI increases with a 3.00% maximum for Tier 1 and a 2.00% maximum for Tier 2)
Mortality	Healthy: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set back one year for males and with no setback for females.	Healthy: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set back one year for males and with no setback for females.
Other assumptions	Same as those used in the June 30, 2015 funding actuarial valuation	Same as those used in the June 30, 2014 funding actuarial valuation

* *Includes inflation at 3.25% plus across the board salary increases of 0.75% plus merit and promotional increases.*

EXHIBIT 5

Projection of Pension Plan's Fiduciary Net Position for Use in Calculation of Discount Rate as of June 30, 2015

($ in millions)

Year Beginning July 1,	Projected Beginning Plan Fiduciary Net Position (a)	Projected Total Contributions (b)	Projected Benefit Payments (c)	Projected Administrative Expenses (d)	Projected Investment Earnings (e)	Projected Ending Plan Fiduciary Net Position (f) = (a) + (b) - (c) - (d) + (e)
2014	$11,791	$584	$741 *	$16	$302	$11,921
2015	11,921	609	828	16	905	12,590
2016	12,590	611	855	17	954	13,283
2017	13,283	613	906	18	1,004	13,976
2018	13,976	613	961	19	1,053	14,662
2019	14,662	608	1,023	20	1,102	15,328
2020	15,328	603	1,090	21	1,149	15,969
2021	15,969	619	1,159	21	1,195	16,603
2022	16,603	624	1,229	22	1,240	17,215
2023	17,215	630	1,301	23	1,283	17,805
2053	14,714	52 **	1,918	20	1,027	13,855
2054	13,855	50 **	1,849	19	965	13,002
2055	13,002	48 **	1,776	17	904	12,160
2056	12,160	46 **	1,701	16	844	11,333
2057	11,333	44 **	1,623	15	785	10,524
2078	817	9 **	211	1	53	667
2079	667	8 **	177	1	43	540
2080	540	7 **	148	1	35	433
2081	433	6 **	122	1	28	344
2082	344	5 **	100	0	22	271
2099	4	0 **, ***	1	0	0	3
2100	3	0 **, ***	1	0	0	2
2101	2	0 **, ***	1	0	0	2
2102	2	0 **, ***	1	0	0	2
2103	2	0 **, ***	0 ***	0	0	1
2104	1	0 **, ***	0 ***	0	0	1
2105	1	0 **, ***	0 ***	0	0	1
2106	1	0 **, ***	0 ***	0	0	1
2107	1	0 **, ***	0 ***	0	0	0
2108	0	0 **, ***	0 ***	0	0	0

* Includes the transfer to the City of Los Angeles Fire and Police Pension Plan due to a change in membership for certain employees in the Office of Public Safety.

** Mainly attributable to employer contributions to fund each year's annual administrative expenses.

*** Less than $1 M, when rounded.

EXHIBIT 5

Projection of Pension Plan's Fiduciary Net Position for Use in Calculation of Discount Rate as of June 30, 2015

($ in millions) - continued

Notes:

(1) Amounts may not total exactly due to rounding.

(2) Amounts shown in the year beginning July 1, 2014 row are actual amounts, based on the unaudited financial statements provided by LACERS.

(3) Years 2024-2052, 2058-2077, and 2083-2098 have been omitted from this table.

(4) Column (a): All of the projected beginning Plan Fiduciary Net Position amounts shown have not been adjusted for the time value of money.

(5) Column (b): Projected total contributions include employee and employer normal cost contributions based on closed group projections (based on covered active members as of June 30, 2015), plus employer contributions to the unfunded actuarial accrued liability (including 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 under the old GASB Statements No. 25 and 27), plus contributions to fund each year's annual administrative expenses reflecting a 15-year amortization schedule. Contributions are assumed to occur at the beginning of the year.

(6) Column (c): Projected benefit payments have been determined in accordance with paragraph 39 of GASB Statement No. 67, and are based on the closed group of active, inactive vested, retired members, and beneficiaries as of June 30, 2015. The projected benefit payments reflect the cost of living increase assumption of 3.00% per annum for Tier 1 and 2.00% per annum for Tier 2. Benefit payments are assumed to occur halfway through the year, on average. In accordance with paragraph 31.b.(1)(e) of GASB Statement No. 67, the long-term expected rate of return on Plan investments of 7.50% per annum was applied to all periods of projected benefit payments to determine the discount rate.

(7) Column (d): Projected administrative expenses are calculated as approximately 0.13% of the projected beginning Plan Fiduciary Net Position. The 0.13% portion was based on the actual fiscal year 2014/2015 administrative expenses as a percentage of the beginning Plan Fiduciary Net Position as of July 1, 2014. Administrative expenses are assumed to occur halfway through the year, on average.

(8) Column (e): Projected investment earnings are based on the assumed investment rate of return of 7.50% per annum.

(9) As illustrated in this Exhibit, the Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments for current Plan members. In other words, there is no projected "cross-over date" when projected benefits are not covered by projected assets. Therefore, the long-term expected rate of return on Plan investments of 7.50% per annum was applied to all periods of projected benefit payments to determine the Total Pension Liability as of June 30, 2015 shown earlier in this report, pursuant to paragraph 44 of GASB Statement No. 67.

Los Angeles City Employees' Retirement System

Governmental Accounting Standards (GAS) 68
Actuarial Valuation Based on June 30, 2015
Measurement Date for Employer Reporting
as of June 30, 2016

This report has been prepared at the request of the Board of Administration to assist the sponsors of the Fund in preparing their financial report for their liabilities associated with the LACERS pension plan. 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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August 4, 2016

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

Dear Board Members:

We are pleased to submit this Governmental Accounting Standards (GAS) 68 Actuarial Valuation based on a June 30, 2015 measurement date for employer reporting as of June 30, 2016. It contains various information that will need to be disclosed in order for the three employer categories in LACERS (i.e., the City, Airports, and Harbor) to comply with GAS 68.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist the sponsors in preparing their financial report for their liabilities associated with the LACERS pension plan. The census and financial information on which our calculations were based was provided by the Retirement System. That assistance is gratefully acknowledged.

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

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

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

Sincerely,

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

By:

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

JRC/hy

SECTION 1

VALUATION SUMMARY

SECTION 2

GAS 68 INFORMATION

SECTION 2 (CONTINUED)

SECTION 3

ACTUARIAL ASSUMPTIONS AND METHODS AND APPENDICES

Purpose

This report has been prepared by Segal Consulting ("Segal") to present certain disclosure information required by Governmental Accounting Standards (GAS) 68 for employer reporting as of June 30, 2016. The results used in preparing this GAS 68 report are comparable to those used in preparing the Governmental Accounting Standards (GAS) 67 report for the plan based on a reporting date and a measurement date as of June 30, 2015. This valuation is based on:

- The benefit provisions of the Pension Plan, as administered by the Board of Administration;
- The characteristics of covered active members, inactive vested members, and retired members and beneficiaries as of June 30, 2015, provided by LACERS;
- The assets of the Plan as of June 30, 2015, provided by LACERS;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board for the June 30, 2015 valuation; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc. adopted by the Board for the June 30, 2015 valuation.

Significant Issues in Valuation Year

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

- The Governmental Accounting Standards Board (GASB) rules only redefine pension liability and expense for financial reporting purposes, and do not apply to contribution amounts for pension funding purposes. Employers and plans can still develop and adopt funding policies under current practices.
- When measuring pension liability, GASB uses the same actuarial cost method (Entry Age) and the same type of discount rate (expected return on assets) as LACERS uses for funding. This means that the Total Pension Liability (TPL) measure for financial reporting shown in this report is determined on the same basis as LACERS' Actuarial Accrued Liability (AAL) measure for funding. We note that the same is generally true for the Normal Cost component of the annual plan cost for funding and financial reporting.
- The Net Pension Liability (NPL) is equal to the difference between the TPL and the Plan's Fiduciary Net Position. The Plan's Fiduciary Net Position is equal to the market value of assets and therefore, the NPL measure is very similar to an Unfunded Actuarial Accrued Liability (UAAL) calculated on a market value basis. The NPL reflects all investment gains and losses as of the measurement date. This is different from the UAAL calculated on an actuarial value of assets basis in the funding valuation that reflects investment gains and losses over a seven-year period.

- The NPL increased from $4.46 billion as of June 30, 2014 to $4.99 billion as of June 30, 2015 mainly due to the approximate return on the market value of assets of 2.5% during 2014/2015 that was less than the assumption of 7.50% used in the June 30, 2014 valuation (that loss was about $0.6 billion). Changes in these values during the last two fiscal years ending June 30, 2014 and June 30, 2015 can be found in Exhibit 5.
- For this report, the reporting dates for the employer are June 30, 2016 and 2015. The NPL was measured as of June 30, 2015 and 2014 and determined based upon the results of the actuarial valuations as of June 30, 2015 and 2014, respectively. Plan Fiduciary Net Position (plan assets) and the TPL were valued as of the measurement dates. Consistent with the provisions of GAS 68, the assets and liabilities measured as of June 30, 2015 and 2014 were not adjusted or rolled forward to the June 30, 2016 and 2015 reporting dates, respectively.
- The discount rate used to measure the TPL and NPL as of June 30, 2015 and 2014 was 7.50%, following the same assumptions used by the System in the pension funding valuations as of the same dates. Details on the derivation of the discount rate can be found in Appendix A of Section 3. Various other information that is required to be disclosed can be found throughout Exhibits 1 through 13 in Section 2.
- The NPLs for the three employer categories in LACERS (i.e., the City, Airports, and Harbor) as of June 30, 2014 and June 30, 2015 are allocated based on the actual employer contributions made during 2013/2014 and 2014/2015, respectively. The steps we used for the allocation are as follows:
  - First calculate the ratio of the employer category's contributions to the total contributions.
  - Then multiply this ratio by the NPL to determine the employer category's proportionate share of the NPL. The NPL allocation can be found in Exhibit 7 in Section 2.
- Results shown in this report exclude any employer contributions made after the measurement date of June 30, 2015. The employer should consult with their auditor to determine the deferred outflow that should be created for these contributions.

Summary of Key Valuation Results

Reporting Date for Employer under GAS 68	6/30/2016[1]	6/30/2015[2]
Measurement Date for Employer under GAS 68	**6/30/2015**	**6/30/2014**
Disclosure elements for fiscal year ending June 30:		
1. Service cost[3]	$322,380,251	$317,185,480
2. Total Pension Liability	16,909,996,380	16,248,853,099
3. Plan Fiduciary Net Position	11,920,570,019	11,791,079,473
4. Net Pension Liability	4,989,426,361	4,457,773,626
5. Pension expense	463,978,261	389,917,291
Schedule of contributions for fiscal year ending June 30:		
6. Actuarially determined contributions	$381,140,923	$357,649,232
7. Actual contributions	381,140,923	357,649,232
8. Contribution deficiency/(excess): (6) – (7)	0	0
Demographic data for plan year ending June 30:		
9. Number of retired members and beneficiaries	17,932	17,532
10. Number of vested terminated members[4]	6,507	6,031
11. Number of active members	23,895	24,009
Key assumptions as of June 30:		
12. Investment rate of return	7.50%	7.50%
13. Inflation rate	3.25%	3.25%
14. Projected salary increases[5]	Ranges from 10.50% to 4.40%, based on years of service	Ranges from 10.50% to 4.40%, based on years of service

(1) *The reporting date and measurement date for the plan are June 30, 2015.*

(2) *The reporting date and measurement date for the plan are June 30, 2014.*

(3) *The service cost is always based on the previous year's assumptions, meaning the June 30, 2015 value is based on those assumptions shown as of June 30, 2014, whereas the June 30, 2014 value is based on the June 30, 2013 assumptions shown below:*

Key assumptions as of June 30, 2013:	
Investment rate of return	7.75%
Inflation rate	3.50%
Projected salary increases*	Ranges from 11.25% to 4.65%, based on years of service for members with under 5 years of serve and on age for members with 5 or more years of service.

* Includes inflation at 3.50% plus real across the board salary increases of 0.75% plus merit and promotional increases.

(4) *Includes terminated members due a refund of employee contributions.*

(5) *Includes inflation at 3.25% plus real across the board salary increase of 0.75% plus merit and promotional increases that vary by service.*

Important Information about Actuarial Valuations

In order to prepare an actuarial valuation, Segal relies on a number of input items. These include:

- **Plan of benefits** Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan description in this report (as well as the plan summary included in our funding valuation report) to confirm that Segal has correctly interpreted the plan of benefits.
- **Participant data** An actuarial valuation for a plan is based on data provided to the actuary by LACERS. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
- **Assets** This valuation is based on the market value of assets as of the valuation date, as provided by LACERS.
- **Actuarial assumptions** In preparing an actuarial valuation, Segal projects the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This projection requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year. In addition, the benefits projected to be paid for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments. The projected benefits are then discounted to a present value, based on the assumed rate of return that is expected to be achieved on the plan's assets. There is a reasonable range for each assumption used in the projection and the results may vary materially based on which assumptions are selected. It is important for any user of an actuarial valuation to understand this concept. Actuarial assumptions are periodically reviewed to ensure that future valuations reflect emerging plan experience. While future changes in actuarial assumptions may have a significant impact on the reported results, that does not mean that the previous assumptions were unreasonable.

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

- The valuation is prepared at the request of the Board to assist the sponsors of the Fund in preparing items related to the pension plan in their financial reports. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial valuation is a measurement of the plan's assets and liabilities at a specific date. Accordingly, except where otherwise noted, Segal did not perform an analysis of the potential range of future financial measures. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.
- If the System is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.

- Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. The Board should look to their other advisors for expertise in these areas.

As Segal has no discretionary authority with respect to the management or assets of LACERS, it is not a fiduciary in its capacity as actuaries and consultants with respect to LACERS.

EXHIBIT 1

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

Plan Description

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

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

Plan membership. At June 30, 2015, pension plan membership consisted of the following:

Retired members or beneficiaries currently receiving benefits	17,932
Vested terminated members entitled to, but not yet receiving benefits[(1)]	6,507
Active members	23,895
Total	48,334

[(1)] *Includes terminated members due a refund of employee contributions*

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

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

[(1)] *It should be noted that since the measurement date as of June 30, 2015, the City has rescinded Tier 2 and directed LACERS to transfer all the current Tier 2 members retroactively to Tier 1. As we have not yet measured the financial impact of those changes, we have continued to refer to those members as Tier 2 members and included their liabilities as measured under Tier 2 in this report.*

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

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

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

Age	Early Retirement Reduction Factor
45	0.6250
50	0.7750
55	0.9250
60	1.0000

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

Age	Retirement Factor	Age	Retirement 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%

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

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

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

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

The City contributes to the retirement plan based upon actuarially determined contribution rates adopted by the Board of Administration. Employer contribution rates are adopted annually based upon recommendations received from LACERS' actuary after the completion of the annual actuarial valuation. The average employer contribution rate as of June 30, 2015 (based on the June 30, 2013 valuation) was 20.76% of compensation[(2)].

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

[(2)] *After adjustments to phase in over five years the impact of new actuarial assumptions (as a result of the June 30, 2011 Triennial Experience Study) on the City's contributions.*

EXHIBIT 2

Net Pension Liability

Reporting Date for Employer under GAS 68	**June 30, 2016**	**June 30, 2015**
Measurement Date for Employer under GAS 68	**June 30, 2015**	**June 30, 2014**
The components of the Net Pension Liability are as follows:		
Total Pension Liability	$16,909,996,380	$16,248,853,099
Plan Fiduciary Net Position	-11,920,570,019	-11,791,079,473
Net Pension Liability	$4,989,426,361	$4,457,773,626
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	70.49%	72.57%

The Net Pension Liability was measured as of June 30, 2015 and 2014 and determined based upon the Plan Fiduciary Net Position (plan assets) and Total Pension Liability from actuarial valuations as of June 30, 2015 and 2014, respectively.

Plan provisions. The plan provisions used in the measurement of the NPL are the same as those used in the LACERS funding valuations as of June 30, 2015 and 2014, respectively.

Actuarial assumptions. The Total Pension Liabilities as of June 30, 2015 and June 30, 2014 were determined by actuarial valuations as of June 30, 2015 and June 30, 2014, respectively. The actuarial assumptions used in this June 30, 2015 valuation were based on the results of an experience study for the period from July 1, 2011 through June 30, 2014. They are the same as the assumptions used in the June 30, 2015 funding actuarial valuation for LACERS. The assumptions are outlined in Section 3 of this report. In particular, the following actuarial assumptions were applied to all periods included in the measurement:

Inflation	3.25%
Salary increases	Ranges from 10.50% to 4.40% based on years of service, including inflation
Investment rate of return	7.50%, net of pension plan investment expense, including inflation
Other assumptions	Same as those used in the June 30, 2015 actuarial valuation

EXHIBIT 3

Target Asset Allocation

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

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

Discount rate: The discount rate used to measure the Total Pension Liability was 7.50% as of June 30, 2015 and June 30, 2014. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the actuarially determined contribution rates. For this purpose, only employee and employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs for future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the Pension Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments for current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability as of both June 30, 2015 and June 30, 2014.

EXHIBIT 4

Discount Rate Sensitivity

Sensitivity of the Net Pension Liability to changes in the discount rate. The following presents the Net Pension Liability (NPL) of LACERS as of June 30, 2015, which is allocated to all employer categories, calculated using the discount rate of 7.50%, as well as what LACERS' NPL would be if it were calculated using a discount rate that is 1-percentage-point lower (6.50%) or 1-percentage-point higher (8.50%) than the current rate:

	Net Pension Liability		
Employer Category	**1% Decrease (6.50%)**	**Current Discount (7.50%)**	**1% Increase (8.50%)**
City	$5,929,882,499	$4,084,786,762	$2,549,305,402
Airports	1,012,534,538	697,482,231	435,296,950
Harbor	300,730,227	207,157,368	129,286,405
Total for all Employer Categories	$7,243,147,264	$4,989,426,361	$3,113,888,757

EXHIBIT 5

Schedule of Changes in Net Pension Liability – Last Two Fiscal Years

Reporting Date for Employer under GAS 68	June 30, 2016	June 30, 2015
Measurement Date for Employer under GAS 68	**June 30, 2015**	**June 30, 2014**
Total Pension Liability		
1. Service cost	$322,380,251	$317,185,480
2. Interest	1,215,151,439(1)	1,149,966,081(2)
3. Change of benefit terms	0	0
4. Differences between expected and actual experience	-135,821,076	-164,247,475
5. Changes of assumptions	0	785,439,114
6. Benefit payments, including refunds of member contributions	-740,567,333(3)	-721,153,263
7. Net change in Total Pension Liability	$661,143,281	$1,367,189,937
8. Total Pension Liability – beginning	16,248,853,099	14,881,663,162
9. Total Pension Liability – ending	$16,909,996,380	$16,248,853,099
Plan Fiduciary Net Position		
10. Contributions – employer	$381,140,923	$357,649,232
11. Contributions – employee	202,462,864	203,975,276
12. Net investment income	306,980,390	1,810,782,123
13. Benefit payments, including refunds of member contributions	-740,567,333(3)	-721,153,263
14. Administrative expense	-15,859,888	-12,372,426
15. Other	-4,666,410(4)	-2,287,567(5)
16. Net change in Plan Fiduciary Net Position	$129,490,546	$1,636,593,375
17. Plan Fiduciary Net Position – beginning	11,791,079,473	10,154,486,098
18. Plan Fiduciary Net Position – ending	$11,920,570,019(6)	$11,791,079,473
19. Net Pension Liability – ending: (9) – (18)	$4,989,426,361	$4,457,773,626
20. Plan Fiduciary Net Position as a percentage of the Total Pension Liability	70.49%	72.57%
21. Covered-employee payroll(7)	$1,835,637,409	$1,802,931,195
22. Plan Net Pension Liability as percentage of covered-employee payroll	271.81%	247.25%

NOTES TO EXHIBIT 5

(1) *Excludes interest on the portion of the benefit payments attributable to the transfer to the City of Los Angeles Fire and Police Pension Plan (see note 3 below), since that transfer was made on July 24, 2015.*

(2) *Based on clarification provided by LACERS subsequent to the completion of our June 30, 2014 GAS 67 report dated December 4, 2014, we understand that the transfer of $2,287,567 during fiscal year 2013/2014 from the (Pension Plan's) Reserve for Member Contributions to the (non-Pension Plan related) Larger Annuity Reserve (referenced on page 6, Exhibit 3 of that report as "Other (Transfer to Larger Annuity Reserve)") represents voluntary contributions of members retired during the reporting fiscal year including funds that were transferred from members' deferred compensation accounts into the Pension Plan just prior to those members' retirements. Those funds were then transferred to the Larger Annuity Reserve to pay the additional benefits payable from that plan. Contributions at those amounts were included as "Contributions – employee" above and treated by Segal Consulting as if they were made to the Pension Plan. Note that we have not restated the Total Pension Liability as of June 30, 2014 by reclassifying these amounts as benefit payments (i.e., we have not reflected the clarification provided by LACERS).*

(3) *Includes a transfer of $2,138,996 to the City of Los Angeles Fire and Police Pension Plan due to a change in membership for certain employees in the Office of Public Safety.*

(4) *Beginning of year segregation of a portion of the Reserve for Member Contributions into the (non-pension related) Reserve for Larger Annuity Contributions ($4,666,410). The Reserve for Larger Annuity Contributions has increased to $5,199,707 as of June 30, 2015.*

(5) *Transfer to Larger Annuity Reserve.*

(6) *Excludes the Reserve for Larger Annuity Contributions (Acct. 256), based on directions from LACERS. This reserve has been separately identified by LACERS for the first time in the June 30, 2015 valuation, pursuant to a suggestion made by Segal. The amount in Acct. 256 was $4,666,410 as of June 30, 2014 and $5,199,707 as of June 30, 2015, both on a market value basis.*

(7) *Covered-employee payroll represents the collective total of the LACERS pensionable wages of all LACERS membership tiers.*

EXHIBIT 6

Schedule of LACERS' Contributions – Last Ten Fiscal Years

Year Ended June 30,	Actuarially Determined Contributions[1]	Contributions in Relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered-Employee Payroll[2]	Contributions as a Percentage of Covered-Employee Payroll
2006	$227,740,600	$227,740,600	$0	$1,602,619,746	14.21%
2007	277,516,400	277,516,400	0	1,646,055,902	16.86%
2008	288,119,041	288,119,041	0	1,741,849,669	16.54%
2009	274,554,786	274,554,786	0	1,832,795,577	14.98%
2010	258,642,795	258,642,795	0	1,827,864,283	14.15%
2011	303,560,953	303,560,953	0	1,678,059,440	18.09%
2012	308,539,905	308,539,905	0	1,715,197,133	17.99%
2013	346,180,852	346,180,852	0	1,736,112,598	19.94%
2014	357,649,232	357,649,232	0	1,802,931,195	19.84%
2015	381,140,923	381,140,923	0	1,835,637,409	20.76%

(1) *Prior to year ending June 30, 2014, this amount was the Annual Required Contribution (ARC).*

(2) *Covered-employee payroll represents the collective total of the LACERS pensionable wages of all LACERS membership tiers.*

Notes to Exhibit 6

Methods and assumptions used to establish "actuarially determined contribution" (ADC) rates:	
Valuation date	Actuarially determined contribution rates are calculated as of June 30, two years prior to the end of the fiscal year in which contributions are reported
Actuarial cost method	Entry Age Cost Method, level percent of salary
Amortization method	Level percent of payroll
Amortization period	Multiple layers, closed amortization periods. Actuarial gains/losses are amortized over 15 years. Assumption or method changes are amortized over 20 years. Plan changes, including the 2009 ERIP, are amortized over 15 years. Future ERIPs will be amortized over 5 years. Actuarial surplus is amortized over 30 years. The existing layers on June 30, 2012, except those arising from the 2009 ERIP and the two GASB 25/27 layers, were combined and amortized over 30 years.
Asset valuation method	Market value of assets less unrecognized returns in each of the last seven years. Unrecognized return is equal to the difference between the actual market return and the expected return on the market value, and is recognized over a seven-year period. The actuarial value of assets cannot be less than 60% or greater than 140% of the market value of assets.
Actuarial assumptions:	June 30, 2015 valuation date
Investment rate of return	7.50%
Inflation rate	3.25%
Real across the board salary increase	0.75%
Projected salary increases[1]	Ranges from 10.50% to 4.40%, based on years of service
Cost of living adjustments	3.00% for Tier 1; 2.00% for Tier 2 (actual increases are contingent upon CPI increases with a 3.00% maximum for Tier 1 and a 2.00% maximum for Tier 2)
Mortality	Healthy: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set back one year for males and with no setback for females
Other assumptions	Same as those used in the June 30, 2015 funding actuarial valuation

(1) *Includes inflation at 3.25% plus across the board salary increases of 0.75% plus merit and promotional increases.*

EXHIBIT 7

Determination of Proportionate Share

Actual Employer Contributions by Employer Category
July 1, 2013 to June 30, 2014

Employer Category	Contributions	Percentage[1]
City	$293,172,196	81.972%
Airports	49,369,708	13.804%
Harbor	15,107,328	4.224%
Total for all Employer Categories	$357,649,232	100.000%

[1] The unrounded percentages are used in the allocation of the NPL amongst employer categories.

Allocation of June 30, 2014 Net Pension Liability

Employer Category	NPL	Percentage
City	$3,654,125,793	81.972%
Airports	615,348,678	13.804%
Harbor	188,299,155	4.224%
Total for all Employer Categories	$4,457,773,626	100.000%

Notes:

1. Based on the July 1, 2013 through June 30, 2014 employer contributions as provided by LACERS.
2. The Net Pension Liability (NPL) is the Total Pension Liability (TPL) minus the Plan Fiduciary Net Position (plan assets).
3. The NPL is allocated based on the actual contributions from each employer category. The steps used for the allocation are as follows:
   - First calculate the ratio of the contributions from the employer category to the total contributions.
   - Then multiply this ratio by the NPL to determine the employer category's proportionate share of the NPL.

EXHIBIT 7 (continued)

Determination of Proportionate Share

Actual Employer Contributions by Employer Category
July 1, 2014 to June 30, 2015

Employer Category	Contributions	Percentage[1]
City	$312,035,750	81.869%
Airports	53,280,478	13.979%
Harbor	15,824,695	4.152%
Total for all Employer Categories	$381,140,923	100.000%

[1] The unrounded percentages are used in the allocation of the NPL amongst employer categories.

Allocation of June 30, 2015 Net Pension Liability

Employer Category	NPL	Percentage
City	$4,084,786,762	81.869%
Airports	697,482,231	13.979%
Harbor	207,157,368	4.152%
Total for all Employer Categories	$4,989,426,361	100.000%

Notes:

1. Based on the July 1, 2014 through June 30, 2015 employer contributions as provided by LACERS.
2. The Net Pension Liability (NPL) is the Total Pension Liability (TPL) minus the Plan Fiduciary Net Position (plan assets).
3. The NPL is allocated based on the actual contributions from each employer category. The steps used for the allocation are as follows:
   - First calculate the ratio of the contributions from the employer category to the total contributions.
   - Then multiply this ratio by the NPL to determine the employer category's proportionate share of the NPL.

EXHIBIT 7 (continued)

Determination of Proportionate Share

Notes:

For purposes of the above results, the reporting date for the employer under GAS 68 is June 30, 2016. The reporting date and measurement date for the plan under GAS 67 are June 30, 2015. Consistent with the provisions of GAS 68, the assets and liabilities measured as of June 30, 2015 are not adjusted or rolled forward to the June 30, 2016 reporting date. Other results, such as the total deferred inflows and outflows would also be allocated based on the same proportionate shares determined above.

The following items are allocated based on the corresponding proportionate share:

1) Net Pension Liability
2) Service cost
3) Interest on the Total Pension Liability
4) Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability
5) Expensed portion of current-period changes of assumptions or other inputs
6) Member contributions
7) Projected earnings on plan investments
8) Expensed portion of current-period differences between actual and projected earnings on plan investments
9) Administrative expense
10) Recognition of beginning of year deferred outflows of resources as pension expense
11) Recognition of beginning of year deferred inflows of resources as pension expense

EXHIBIT 8

Pension Expense – Total for all Employer Categories

Reporting Date for Employer under GAS 68	June 30, 2016	June 30, 2015
Measurement Date for Employer under GAS 68	**June 30, 2015**	**June 30, 2014**
Components of Pension Expense		
1. Service cost	$322,380,251	$317,185,480
2. Interest on the Total Pension Liability	1,215,151,439	1,149,877,438
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
4. Expensed portion of current-period benefit changes	0	0
5. Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	-25,059,239	-28,802,716[(1)]
6. Expensed portion of current-period changes of assumptions or other inputs	0	139,757,849
7. Actual member contributions	-202,462,864	-203,975,276
8. Projected earnings on plan investments	-890,682,033	-792,926,857
9. Expensed portion of current-period differences between actual and projected earnings on plan investments	116,740,329	-203,571,053
10. Administrative expense	15,859,888	12,372,426
11. Other	4,666,410	0
12. Recognition of beginning of year deferred outflows of resources as pension expense	139,757,849	0
13. Recognition of beginning of year deferred inflows of resources as pension expense	-232,373,769	0
14. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
Pension Expense	$463,978,261	$389,917,291

[(1)] *Based on clarification provided by LACERS subsequent to the completion of our June 30, 2014 GAS 67 report dated December 4, 2014, we understand that the transfer of $2,287,567 during fiscal year 2013/2014 from the (Pension Plan's) Reserve for Member Contributions to the (non-Pension Plan related) Larger Annuity Reserve (referenced on page 6, Exhibit 3 of that report as "Other (Transfer to Larger Annuity Reserve)") represents voluntary contributions of members retired during the reporting fiscal year including funds that were transferred from members' deferred compensation accounts into the Pension Plan just prior to those members' retirements. Those funds were then transferred to the Larger Annuity Reserve to pay the additional benefits payable from that plan. Contributions at those amounts were included in Exhibit 3 as "Contributions – employee" and treated by Segal Consulting as if they were made to the Pension Plan. For purposes of determining the deferred inflows of resources and the pension expense in this report, we have reclassified these amounts as benefit payments, to reflect the clarification provided by LACERS. This has the impact of lowering the treatment of the actuarial experience gain for 2013/2014 (referenced in that Exhibit 3 as "Differences between expected and actual experience") by that same amount plus expected interest (or by $2,376,210).*

EXHIBIT 8 (continued)

Pension Expense – City

Reporting Date for Employer under GAS 68 Measurement Date for Employer under GAS 68 Components of Pension Expense	June 30, 2016 June 30, 2015	June 30, 2015 June 30, 2014
1. Service cost	$263,929,054	$260,003,252
2. Interest on the Total Pension Liability	994,830,699	942,577,429
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	-905,571	4,365,759
4. Expensed portion of current-period benefit changes	0	0
5. Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	-20,515,715	-23,610,160
6. Expensed portion of current-period changes of assumptions or other inputs	0	114,562,292
7. Actual member contributions	-165,754,050	-167,202,594
8. Projected earnings on plan investments	-729,191,276	-649,977,931
9. Expensed portion of current-period differences between actual and projected earnings on plan investments	95,573,983	-166,871,245
10. Administrative expense	12,984,310	10,141,924
11. Other	3,820,337	0
12. Recognition of beginning of year deferred outflows of resources as pension expense	114,418,165	0
13. Recognition of beginning of year deferred inflows of resources as pension expense	-190,241,768	0
14. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	4,365,759	0
Pension Expense	$383,313,927	$323,988,726

EXHIBIT 8 (continued)

Pension Expense – Airports

Reporting Date for Employer under GAS 68	**June 30, 2016**	**June 30, 2015**
Measurement Date for Employer under GAS 68	**June 30, 2015**	**June 30, 2014**
Components of Pension Expense		
1. Service cost	$45,066,202	$43,784,115
2. Interest on the Total Pension Liability	169,868,533	158,728,464
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	1,539,009	-4,166,153
4. Expensed portion of current-period benefit changes	0	0
5. Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	-3,503,083	-3,975,911
6. Expensed portion of current-period changes of assumptions or other inputs	0	19,292,098
7. Actual member contributions	-28,302,703	-28,156,638
8. Projected earnings on plan investments	-124,510,284	-109,455,198
9. Expensed portion of current-period differences between actual and projected earnings on plan investments	16,319,372	-28,100,839
10. Administrative expense	2,217,087	1,707,883
11. Other	652,327	0
12. Recognition of beginning of year deferred outflows of resources as pension expense	19,537,039	0
13. Recognition of beginning of year deferred inflows of resources as pension expense	-32,484,010	0
14. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	-4,166,153	0
Pension Expense	$62,233,336	$49,657,821

EXHIBIT 8 (continued)

Pension Expense – Harbor

Reporting Date for Employer under GAS 68	June 30, 2016	June 30, 2015
Measurement Date for Employer under GAS 68	**June 30, 2015**	**June 30, 2014**
Components of Pension Expense		
1. Service cost	$13,384,995	$13,398,113
2. Interest on the Total Pension Liability	50,452,207	48,571,545
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	-633,438	-199,606
4. Expensed portion of current-period benefit changes	0	0
5. Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	-1,040,441	-1,216,645
6. Expensed portion of current-period changes of assumptions or other inputs	0	5,903,459
7. Actual member contributions	-8,406,111	-8,616,044
8. Projected earnings on plan investments	-36,980,473	-33,493,728
9. Expensed portion of current-period differences between actual and projected earnings on plan investments	4,846,974	-8,598,969
10. Administrative expense	658,491	522,619
11. Other	193,746	0
12. Recognition of beginning of year deferred outflows of resources as pension expense	5,802,645	0
13. Recognition of beginning of year deferred inflows of resources as pension expense	-9,647,991	0
14. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	-199,606	0
Pension Expense	$18,430,998	$16,270,744

EXHIBIT 9

Deferred Outflows of Resources and Deferred Inflows of Resources – Total for all Employer Categories

Reporting Date for Employer under GAS 68	June 30, 2016	June 30, 2015
Measurement Date for Employer under GAS 68	**June 30, 2015**	**June 30, 2014**
Deferred Outflows of Resources		
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions[1]	$22,606,466	$20,169,805
2. Changes of assumptions or other inputs	505,923,416	645,681,265
3. Difference between expected and actual experience in the Total Pension Liability	0	0
4. Total deferred outflows of resources	$528,529,882	$665,851,070
Deferred Inflows of Resources		
5. Changes in proportion and differences between employer's contributions and proportionate share of contributions[1]	$22,606,466	$20,169,805
6. Changes of assumptions or other inputs	0	0
7. Net difference between projected and actual earnings on pension plan investments	143,751,846	814,284,213
8. Difference between expected and actual experience in the Total Pension Liability	215,027,670	133,068,549[2]
9. Total deferred inflows of resources	$381,385,982	$967,522,567

Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:

Reporting Date for Employer under GAS 68, Year Ended June 30:		
2016	N/A	-$92,615,920
2017	-$934,830	-92,615,920
2018	-934,830	-92,615,920
2019	-934,831	-92,615,921
2020	160,473,272	68,792,184
2021	-10,524,881	0
Thereafter	0	0

[1] *Calculated in accordance with Paragraphs 54 and 55 of GAS 68.*

[2] *See footnote 1 on page 14.*

EXHIBIT 9

Deferred Outflows of Resources and Deferred Inflows of Resources – City

Reporting Date for Employer under GAS 68	**June 30, 2016**	**June 30, 2015**
Measurement Date for Employer under GAS 68	**June 30, 2015**	**June 30, 2014**
Deferred Outflows of Resources		
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions[(1)]	$15,804,046	$20,169,805
2. Changes of assumptions or other inputs	414,193,761	529,277,788
3. Difference between expected and actual experience in the Total Pension Liability	0	0
4. Total deferred outflows of resources	$429,997,807	$549,447,593
Deferred Inflows of Resources		
5. Changes in proportion and differences between employer's contributions and proportionate share of contributions[(1)]	$4,002,623	$0
6. Changes of assumptions or other inputs	0	0
7. Net difference between projected and actual earnings on pension plan investments	117,688,005	667,484,981
8. Difference between expected and actual experience in the Total Pension Liability	176,040,714	109,078,939
9. Total deferred inflows of resources	$297,731,342	$776,563,920

Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:

Reporting Date for Employer under GAS 68, Year Ended June 30:		
2016	N/A	-$71,553,354
2017	$2,694,853	-71,553,354
2018	2,694,853	-71,553,354
2019	2,694,853	-71,553,355
2020	133,178,845	59,097,090
2021	-8,996,939	0
Thereafter	0	0

[(1)] *Calculated in accordance with Paragraphs 54 and 55 of GAS 68.*

EXHIBIT 9

Deferred Outflows of Resources and Deferred Inflows of Resources – Airports

Reporting Date for Employer under GAS 68	**June 30, 2016**	**June 30, 2015**
Measurement Date for Employer under GAS 68	**June 30, 2015**	**June 30, 2014**
Deferred Outflows of Resources		
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions[1]	$6,802,420	$0
2. Changes of assumptions or other inputs	70,724,081	89,129,495
3. Difference between expected and actual experience in the Total Pension Liability	0	0
4. Total deferred outflows of resources	$77,526,501	$89,129,495
Deferred Inflows of Resources		
5. Changes in proportion and differences between employer's contributions and proportionate share of contributions[1]	$15,081,474	$19,247,627
6. Changes of assumptions or other inputs	0	0
7. Net difference between projected and actual earnings on pension plan investments	20,095,368	112,403,356
8. Difference between expected and actual experience in the Total Pension Liability	30,059,163	18,368,711
9. Total deferred inflows of resources	$65,236,005	$150,019,694

Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:

Reporting Date for Employer under GAS 68, Year Ended June 30:		
2016	N/A	-$16,950,805
2017	-$2,757,826	-16,950,805
2018	-2,757,826	-16,950,805
2019	-2,757,826	-16,950,805
2020	21,388,885	6,913,021
2021	-824,911	0
Thereafter	0	0

[1] *Calculated in accordance with Paragraphs 54 and 55 of GAS 68.*

EXHIBIT 9

Deferred Outflows of Resources and Deferred Inflows of Resources – Harbor

Reporting Date for Employer under GAS 68	June 30, 2016	June 30, 2015
Measurement Date for Employer under GAS 68	**June 30, 2015**	**June 30, 2014**
Deferred Outflows of Resources		
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions[(1)]	$0	$0
2. Changes of assumptions or other inputs	21,005,574	27,273,982
3. Difference between expected and actual experience in the Total Pension Liability	0	0
4. Total deferred outflows of resources	$21,005,574	$27,273,982
Deferred Inflows of Resources		
5. Changes in proportion and differences between employer's contributions and proportionate share of contributions[(1)]	$3,522,369	$922,178
6. Changes of assumptions or other inputs	0	0
7. Net difference between projected and actual earnings on pension plan investments	5,968,473	34,395,876
8. Difference between expected and actual experience in the Total Pension Liability	8,927,793	5,620,899
9. Total deferred inflows of resources	$18,418,635	$40,938,953

Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:

Reporting Date for Employer under GAS 68, Year Ended June 30:		
2016	N/A	-$4,111,761
2017	-$871,857	-4,111,761
2018	-871,857	-4,111,761
2019	-871,858	-4,111,761
2020	5,905,542	2,782,073
2021	-703,031	0
Thereafter	0	0

[(1)] *Calculated in accordance with Paragraphs 54 and 55 of GAS 68.*

EXHIBIT 9 (continued)

Deferred Outflows of Resources and Deferred Inflows of Resources

There are changes in each employer category's proportionate share of the total Net Pension Liability during the measurement period ended June 30, 2015. The net effect of the change on the employer category's proportionate share of the collective Net Pension Liability and collective deferred outflows of resources and deferred inflows of resources is recognized over the average of the expected remaining service lives of all employees that are provided with pensions through LACERS which is 5.42 years determined as of June 30, 2014 (the beginning of the measurement period ending June 30, 2015).

In addition, the difference between the actual employer contributions and the proportionate share of the employer contributions during the measurement period ended June 30, 2015 is recognized over the same period.

The average of the expected service lives of all employees is determined by:

- Calculating each active employee's expected remaining service life as the present value of $1 per year of future service at zero percent interest.
- Setting the remaining service life to zero for each nonactive or retired member.
- Dividing the sum of the above amounts by the total number of active employee, nonactive and retired members.

EXHIBIT 10

Schedule of Proportionate Share of the Net Pension Liability – Total for all Employer Categories

Reporting Date for Employer under GAS 68 as of June 30	Proportion of the Net Pension Liability	Proportionate share of Net Pension Liability	Covered-employee payroll[1]	Proportionate share of the Net Pension Liability as a percentage of its covered-employee payroll	Plan Fiduciary Net Position as a percentage of the Total Pension Liability
2014	100.000%	$4,727,177,064	$1,736,112,598	272.29%	68.23%
2015	100.000%	4,457,773,626	1,802,931,195	247.25%	72.57%
2016	100.000%	4,989,426,361	1,835,637,409	271.81%	70.49%

[1] *Covered-employee payroll represents the collective total of the LACERS pensionable wages of all LACERS membership tiers.*

EXHIBIT 10 (continued)

Schedule of Proportionate Share of the Net Pension Liability – City

Reporting Date for Employer under GAS 68 as of June 30	Proportion of the Net Pension Liability	Proportionate share of Net Pension Liability	Covered-employee payroll[1]	Proportionate share of the Net Pension Liability as a percentage of its covered-employee payroll	Plan Fiduciary Net Position as a percentage of the Total Pension Liability
2014	81.453%	$3,850,425,590	$1,414,115,080	272.29%	68.23%
2015	81.972%	3,654,125,793	1,477,663,755	247.29%	72.57%
2016	81.869%	4,084,786,762	1,504,659,940	271.48%	70.49%

[1] *Covered-employee payroll represents the collective total of the LACERS pensionable wages of all LACERS membership tiers.*

EXHIBIT 10 (continued)

Schedule of Proportionate Share of the Net Pension Liability – Airports

Reporting Date for Employer under GAS 68 as of June 30	Proportion of the Net Pension Liability	Proportionate share of Net Pension Liability	Covered-employee payroll[1]	Proportionate share of the Net Pension Liability as a percentage of its covered-employee payroll	Plan Fiduciary Net Position as a percentage of the Total Pension Liability
2014	14.299%	$675,950,764	$248,251,046	272.29%	68.23%
2015	13.804%	615,348,678	249,227,877	246.90%	72.57%
2016	13.979%	697,482,231	255,014,220	273.51%	70.49%

[1] Covered-employee payroll represents the collective total of the LACERS pensionable wages of all LACERS membership tiers.

EXHIBIT 10 (continued)

Schedule of Proportionate Share of the Net Pension Liability – Harbor

Reporting Date for Employer under GAS 68 as of June 30	Proportion of the Net Pension Liability	Proportionate share of Net Pension Liability	Covered-employee payroll[1]	Proportionate share of the Net Pension Liability as a percentage of its covered-employee payroll	Plan Fiduciary Net Position as a percentage of the Total Pension Liability
2014	4.248%	$200,800,710	$73,746,472	272.29%	68.23%
2015	4.224%	188,299,155	76,039,563	247.63%	72.57%
2016	4.152%	207,157,368	75,963,249	272.71%	70.49%

[1] *Covered-employee payroll represents the collective total of the LACERS pensionable wages of all LACERS membership tiers.*

EXHIBIT 11

Schedule of Reconciliation of Net Pension Liability – Total for all Employer Categories

Reporting Date for Employer under GAS 68	**June 30, 2016**	**June 30, 2015**
Measurement Date for Employer under GAS 68	**June 30, 2015**	**June 30, 2014**
Reconciliation of Net Pension Liability		
1. Beginning Net Pension Liability	$4,457,773,626	$4,727,177,064
2. Pension Expense	463,978,261	389,917,291
3. Employer Contributions	-381,140,923	-357,649,232
4. New Net Deferred Inflows/Outflows	356,199,477	-301,671,497
5. Change in Allocation of Prior Deferred Inflows/Outflows	0	0
6. New Net Deferred Flows Due to Change in Proportion	0	0
7. Recognition of Prior Deferred Inflows/Outflows	92,615,920	0
8. Recognition of Prior Deferred Flows Due to Change in Proportion	0	0
9. Ending Net Pension Liability	$4,989,426,361	$4,457,773,626

EXHIBIT 11 (continued)

Schedule of Reconciliation of Net Pension Liability – City

Reporting Date for Employer under GAS 68		June 30, 2016	June 30, 2015
Measurement Date for Employer under GAS 68		**June 30, 2015**	**June 30, 2014**
Reconciliation of Net Pension Liability			
1.	Beginning Net Pension Liability	$3,654,125,793	$3,850,425,590
2.	Pension Expense	383,313,927	323,988,726
3.	Employer Contributions	-312,035,750	-293,172,196
4.	New Net Deferred Inflows/Outflows	291,616,471	-247,286,132
5.	Change in Allocation of Prior Deferred Inflows/Outflows	311,100	0
6.	New Net Deferred Flows Due to Change in Proportion	-4,002,623	20,169,805
7.	Recognition of Prior Deferred Inflows/Outflows	75,823,603	0
8.	Recognition of Prior Deferred Flows Due to Change in Proportion	-4,365,759	0
9.	Ending Net Pension Liability	$4,084,786,762	$3,654,125,793

EXHIBIT 11 (continued)

Schedule of Reconciliation of Net Pension Liability – Airports

Reporting Date for Employer under GAS 68	**June 30, 2016**	**June 30, 2015**
Measurement Date for Employer under GAS 68	**June 30, 2015**	**June 30, 2014**
Reconciliation of Net Pension Liability		
1. Beginning Net Pension Liability	$615,348,678	$675,950,764
2. Pension Expense	62,233,336	49,657,821
3. Employer Contributions	-53,280,478	-49,369,708
4. New Net Deferred Inflows/Outflows	49,793,862	-41,642,572
5. Change in Allocation of Prior Deferred Inflows/Outflows	-528,711	0
6. New Net Deferred Flows Due to Change in Proportion	6,802,420	-19,247,627
7. Recognition of Prior Deferred Inflows/Outflows	12,946,971	0
8. Recognition of Prior Deferred Flows Due to Change in Proportion	4,166,153	0
9. Ending Net Pension Liability	$697,482,231	$615,348,678

EXHIBIT 11 (continued)

Schedule of Reconciliation of Net Pension Liability – Harbor

Reporting Date for Employer under GAS 68 Measurement Date for Employer under GAS 68 Reconciliation of Net Pension Liability	June 30, 2016 June 30, 2015	June 30, 2015 June 30, 2014
1. Beginning Net Pension Liability	$188,299,155	$200,800,710
2. Pension Expense	18,430,998	16,270,744
3. Employer Contributions	-15,824,695	-15,107,328
4. New Net Deferred Inflows/Outflows	14,789,144	-12,742,793
5. Change in Allocation of Prior Deferred Inflows/Outflows	217,611	0
6. New Net Deferred Flows Due to Change in Proportion	-2,799,797	-922,178
7. Recognition of Prior Deferred Inflows/Outflows	3,845,346	0
8. Recognition of Prior Deferred Flows Due to Change in Proportion	199,606	0
9. Ending Net Pension Liability	$207,157,368	$188,299,155

EXHIBIT 12

Schedule of Recognition of Changes in Total Net Pension Liability

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Differences between Expected and Actual Experience on Total Pension Liability

Reporting Date for Employer under GAS 68, Year Ended June 30	Differences between Expected and Actual Experience	Recognition Period (Years)	Reporting Date for Employer under GAS 68, Year Ended June 30: 2015	2016	2017	2018	2019	2020	2021	Thereafter
2015	-$161,871,265	5.62	-$28,802,716	-$28,802,716	-$28,802,716	-$28,802,716	-$28,802,716	-$17,857,685	$0	$0
2016	-135,821,076	5.42	N/A	-25,059,239	-25,059,239	-25,059,239	-25,059,239	-25,059,239	-10,524,881	0
Net increase (decrease) in pension expense			-$28,802,716	-$53,861,955	-$53,861,955	-$53,861,955	-$53,861,955	-$42,916,924	-$10,524,881	$0

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Assumption Changes

Reporting Date for Employer under GAS 68, Year Ended June 30	Effects of Assumption Changes	Recognition Period (Years)	Reporting Date for Employer under GAS 68, Year Ended June 30: 2015	2016	2017	2018	2019	2020	2021	Thereafter
2015	$785,439,114	5.62	$139,757,849	$139,757,849	$139,757,849	$139,757,849	$139,757,849	$86,649,869	$0	$0
2016	0	5.42	N/A	0	0	0	0	0	0	0
Net increase (decrease) in pension expense			$139,757,849	$139,757,849	$139,757,849	$139,757,849	$139,757,849	$86,649,869	$0	$0

As described in Exhibit 9, the average of the expected remaining service lives of all employees that are provided with pensions through LACERS (active and inactive employees) determined as of June 30, 2014 (the beginning of the measurement period ending June 30, 2015) is 5.42 years.

EXHIBIT 12 (continued)

Schedule of Recognition of Changes in Total Net Pension Liability

Increase (Decrease) in Pension Expense Arising from the Recognition of Differences between Projected and Actual Earnings on Pension Plan Investments

Reporting Date for Employer under GAS 68, Year Ended June 30	Differences between Projected and Actual Earnings	Recognition Period (Years)	Reporting Date for Employer under GAS 68, Year Ended June 30: 2015	2016	2017	2018	2019	2020	2021	Thereafter
2015	-$1,017,855,266	5.00	-$203,571,053	-$203,571,053	-$203,571,053	-$203,571,053	-$203,571,054	$0	$0	$0
2016	583,701,643	5.00	N/A	116,740,329	116,740,329	116,740,329	116,740,329	116,740,327	0	0
Net increase (decrease) in pension expense			-$203,571,053	-$86,830,724	-$86,830,724	-$86,830,724	-$86,830,725	$116,740,327	$0	$0

The differences between projected and actual earnings on pension plan investments are recognized over a five-year period per Paragraph 33b. of GASB 68.

Increase (Decrease) in Pension Expense

Reporting Date for Employer under GAS 68, Year Ended June 30	Total Differences and Changes	Reporting Date for Employer under GAS 68, Year Ended June 30: 2015	2016	2017	2018	2019	2020	2021	Thereafter
2015	-$394,287,417	-$92,615,920	-$92,615,920	-$92,615,920	-$92,615,920	-$92,615,921	$68,792,184	$0	$0
2016	447,880,567	N/A	91,681,090	91,681,090	91,681,090	91,681,090	91,681,088	-10,524,881	0
Net increase (decrease) in pension expense		-$92,615,920	-$934,830	-$934,830	-$934,830	-$934,831	$160,473,272	-$10,524,881	$0

EXHIBIT 13

Allocation of Changes in Total Net Pension Liability

In addition to the amounts shown in Exhibit 12, there are changes in each employer's proportionate share of the total Net Pension Liability during the measurement period ending on June 30, 2015. The net effect of the change on the employer's proportionate share of the collective Net Pension Liability and collective deferred outflows of resources and deferred inflows of resources is also recognized over the average of the expected remaining service lives of all employees shown above. The difference between the actual employer contributions and the proportionate share of the employer contributions during the measurement period ending on June 30, 2015 is recognized over the same periods. These amounts are shown below. While these amounts are different for each employer, they sum to zero over the entire Retirement System.

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer Contributions for the Reporting Date for Employer under GAS 68, Year Ended June 30, 2016

	Total Change to be Recognized	Recognition Period (Years)	Reporting Date for Employer under GAS 68, Year Ended June 30:					
			2016	2017	2018	2019	2020	2021
City	-$4,908,194	5.42	-$905,571	-$905,571	-$905,571	-$905,571	-$905,571	-$380,339
Airports	8,341,429	5.42	1,539,009	1,539,009	1,539,009	1,539,009	1,539,009	646,384
Harbor	-3,433,235	5.42	-633,438	-633,438	-633,438	-633,438	-633,438	-266,045
Total for all Employer Categories	$0		$0	$0	$0	$0	$0	$0

Actuarial Assumptions and Methods

For June 30, 2015 Measurement Date and Employer Reporting as of June 30, 2016

Rationale for Assumptions: The information and analysis used in selecting each assumption that has a significant effect on this actuarial valuation is shown in the July 1, 2011 through June 30, 2014 Actuarial Experience Study dated October 8, 2014. Unless otherwise noted, all actuarial assumptions apply to both Tier 1 and Tier 2 members. These assumptions were adopted by the Board.

Demographic Assumptions:

Post-Retirement Mortality Rates:

Healthy Members and All Beneficiaries: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set back one year for males and with no setback for females.

Disabled Members: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set forward seven years for males and set forward eight years for females.

The above mortality tables contain about a 10% margin, based on actual to expected deaths, as a provision appropriate to reasonably anticipate future mortality improvement, based on a review of mortality experience as of the measurement date.

Termination Rates Before Retirement:

Pre-Retirement Mortality: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set back one year for males and with no setback for females.

	Rate (%)	
Age	**Disability**	**Termination***
25	0.01	5.75
30	0.03	5.75
35	0.05	4.85
40	0.09	3.50
45	0.15	2.70
50	0.19	2.50
55	0.20	2.35
60	0.20	2.25

** Rates for members with five or more years of service. Termination rates are zero for members eligible to retire.*

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

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

Retirement Rates:

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

Retirement Age and Benefit for Inactive Vested Participants:	Pension benefit paid at the later of age 58 or the current attained age. For reciprocals, 4.40% compensation increases per annum.
Exclusion of Inactive Members:	All inactive participants are included in the valuation.
Definition of Active Members:	First day of biweekly payroll following employment for new department employees or immediately following transfer from other city department.
Unknown Data for Members:	Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male.
Percent Married/Domestic Partner:	76% of male participants; 50% of female participants.
Age of Spouse:	Male retirees are assumed to be 4 years older than their female spouses. Female retirees are assumed to be 2 years younger than their male spouses.
Service:	Employment service is used for eligibility determination purposes. Benefit service is used for benefit calculation purposes.
Future Benefit Accruals:	1.0 year of service per year.
Other Reciprocal Service:	5% of future inactive vested members will work at a reciprocal system.
<u>Economic Assumptions:</u>	
Net Investment Return:	7.50%
Consumer Price Index:	Increase of 3.25% per year; benefit increases due to CPI subject to 3.00% maximum for Tier 1 and 2.00% maximum for Tier 2.
Employee Contribution Crediting Rate:	Based on average of 5-year Treasury note rate. An assumption of 3.25% is used to approximate that crediting rate in this valuation.

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

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

Actuarial Methods:

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

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

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. The amortization method for the UAAL is a level percent of payroll, assuming annual increases in total covered payroll equal to inflation plus across the board increases (other than inflation). Both the normal cost and the actuarial accrued liability are determined under the Entry Age cost method and are calculated on an individual basis. Entry age is calculated as age on the valuation date minus years of service.

Under the current funding policy, changes in the UAAL due to actuarial gains/losses are amortized over separate 15-year periods. Any changes in the UAAL due to assumption or method changes are amortized over separate 20-year periods. Plan changes, including the 2009 ERIP, are amortized over separate 15-year periods. Future ERIPs will be amortized over 5 years. Any actuarial surplus is amortized over 30 years. All the bases on or before June 30, 2012, except those arising from the 2009 ERIP and the two GASB 25/27 layers, were combined and amortized over 30 years effective June 30, 2012.

The recommended contribution is set equal to the greater of the current funding policy or the minimum Annual Required Contribution (ARC) as determined by the then current GASB Statements 25 and 27. In particular, an additional contribution due to the application of the 40-year minimum amortization requirement for both fiscal year 2003/2004 and fiscal year 2004/2005 is included in the calculation of the recommended contribution.

Expected Remaining Service Lives: The average of the expected service lives of all employees is determined by:

- Calculating each active employee's expected remaining service life as the present value of $1 per year of future service at zero percent interest.
- Setting the remaining service life to zero for each nonactive or retired member.
- Dividing the sum of the above amounts by the total number of active employee, nonactive and retired members.

APPENDIX A

Calculation of Discount Rate as of June 30, 2015
Projection of Pension Plan's Fiduciary Net Position ($ in millions)

Year Beginning July 1,	Projected Beginning Plan Fiduciary Net Position (a)	Projected Total Contributions (b)	Projected Benefit Payments (c)	Projected Administrative Expenses (d)	Projected Investment Earnings (e)	Projected Ending Plan Fiduciary Net Position (f) = (a) + (b) - (c) - (d) + (e)
2014	$11,791	$584	$741 *	$16	$302	$11,921
2015	11,921	609	828	16	905	12,590
2016	12,590	611	855	17	954	13,283
2017	13,283	613	906	18	1,004	13,976
2018	13,976	613	961	19	1,053	14,662
2019	14,662	608	1,023	20	1,102	15,328
2020	15,328	603	1,090	21	1,149	15,969
2021	15,969	619	1,159	21	1,195	16,603
2022	16,603	624	1,229	22	1,240	17,215
2023	17,215	630	1,301	23	1,283	17,805
2053	14,714	52 **	1,918	20	1,027	13,855
2054	13,855	50 **	1,849	19	965	13,002
2055	13,002	48 **	1,776	17	904	12,160
2056	12,160	46 **	1,701	16	844	11,333
2057	11,333	44 **	1,623	15	785	10,524
2078	817	9 **	211	1	53	667
2079	667	8 **	177	1	43	540
2080	540	7 **	148	1	35	433
2081	433	6 **	122	1	28	344
2082	344	5 **	100	0	22	271
2099	4	0 **, ***	1	0	0	3
2100	3	0 **, ***	1	0	0	2
2101	2	0 **, ***	1	0	0	2
2102	2	0 **, ***	1	0	0	2
2103	2	0 **, ***	0 ***	0	0	1
2104	1	0 **, ***	0 ***	0	0	1
2105	1	0 **, ***	0 ***	0	0	1
2106	1	0 **, ***	0 ***	0	0	1
2107	1	0 **, ***	0 ***	0	0	0
2108	0	0 **, ***	0 ***	0	0	0

* Includes the transfer to the City of Los Angeles Fire and Police Pension Plan due to a change in membership for certain employees in the Office of Public Safety.

** Mainly attributable to employer contributions to fund each year's annual administrative expenses.

*** Less than $1 M, when rounded.

APPENDIX A (continued)

Calculation of Discount Rate as of June 30, 2015
Projection of Pension Plan's Fiduciary Net Position ($ in millions)

Notes:

(1) Amounts may not total exactly due to rounding.

(2) Amounts shown in the year beginning July 1, 2014 row are actual amounts, based on the unaudited financial statements provided by LACERS.

(3) Years 2024-2052, 2058-2077, and 2083-2098 have been omitted from this table.

(4) Column (a): All of the projected beginning Plan Fiduciary Net Position amounts shown have not been adjusted for the time value of money.

(5) Column (b): Projected total contributions include employee and employer normal cost contributions based on closed group projections (based on covered active members as of June 30, 2015), plus employer contributions to the unfunded actuarial accrued liability (including 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 under the old GASB Statements No. 25 and 27), plus contributions to fund each year's annual administrative expenses reflecting a 15-year amortization schedule. Contributions are assumed to occur at the beginning of the year.

(6) Column (c): Projected benefit payments have been determined in accordance with paragraph 39 of GASB Statement No. 67, and are based on the closed group of active, inactive vested, retired members, and beneficiaries as of June 30, 2015. The projected benefit payments reflect the cost of living increase assumption of 3.00% per annum for Tier 1 and 2.00% per annum for Tier 2. Benefit payments are assumed to occur halfway through the year, on average. In accordance with paragraph 31.b.(1)(e) of GASB Statement No. 67, the long-term expected rate of return on Plan investments of 7.50% per annum was applied to all periods of projected benefit payments to determine the discount rate.

(7) Column (d): Projected administrative expenses are calculated as approximately 0.13% of the projected beginning Plan Fiduciary Net Position. The 0.13% portion was based on the actual fiscal year 2014/2015 administrative expenses as a percentage of the beginning Plan Fiduciary Net Position as of July 1, 2014. Administrative expenses are assumed to occur halfway through the year, on average.

(8) Column (e): Projected investment earnings are based on the assumed investment rate of return of 7.50% per annum.

(9) As illustrated in this Exhibit, the Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments for current Plan members. In other words, there is no projected "cross-over date" when projected benefits are not covered by projected assets. Therefore, the long-term expected rate of return on Plan investments of 7.50% per annum was applied to all periods of projected benefit payments to determine the Total Pension Liability as of June 30, 2015 shown earlier in this report, pursuant to paragraph 44 of GASB Statement No. 67.

APPENDIX B

Glossary of Terms

Definitions of certain terms *as they are used in Statement 68;* the terms may have different meanings in other contexts.

Active employees
Individuals employed at the end of the reporting or measurement period, as applicable.

Actual contributions
Cash contributions recognized as additions to a pension plan's fiduciary net position.

Actuarial present value of projected benefit payments
Projected benefit payments discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment.

Actuarial valuation
The determination, as of a point in time (the actuarial valuation date), of the service cost, total pension liability, and related actuarial present value of projected benefit payments for pensions performed in conformity with Actuarial Standards of Practice unless otherwise specified by the GASB.

Actuarial valuation date
The date as of which an actuarial valuation is performed.

Actuarially determined contribution
A target or recommended contribution to a defined benefit pension plan for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.

Ad hoc cost-of-living adjustments (ad hoc COLAs)
Cost-of-living adjustments that require a decision to grant by the authority responsible for making such decisions.

Ad hoc postemployment benefit changes
Postemployment benefit changes that require a decision to grant by the authority responsible for making such decisions.

Agent employer
An employer whose employees are provided with pensions through an agent multiple-employer defined benefit pension plan.

APPENDIX B (continued)

Glossary of Terms

Agent multiple-employer defined benefit pension plan (agent pension plan)
A multiple-employer defined benefit pension plan in which pension plan assets are pooled for investment purposes but separate accounts are maintained for each individual employer so that each employer's share of the pooled assets is legally available to pay the benefits of only its employees.

Allocated insurance contract
A contract with an insurance company under which related payments to the insurance company are currently used to purchase immediate or deferred annuities for individual employees. Also may be referred to as an annuity contract.

Automatic cost-of-living adjustments (automatic COLAs)
Cost-of-living adjustments that occur without a requirement for a decision to grant by a responsible authority, including those for which the amounts are determined by reference to a specified experience factor (such as the earnings experience of the pension plan) or to another variable (such as an increase in the consumer price index).

Automatic postemployment benefit changes
Postemployment benefit changes that occur without a requirement for a decision to grant by a responsible authority, including those for which the amounts are determined by reference to a specified experience factor (such as the earnings experience of the pension plan) or to another variable (such as an increase in the consumer price index).

Closed period
A specific number of years that is counted from one date and declines to zero with the passage of time. For example, if the recognition period initially is five years on a closed basis, four years remain after the first year, three years after the second year, and so forth.

Collective deferred outflows of resources and deferred inflows of resources related to pensions
Deferred outflows of resources and deferred inflows of resources related to pensions arising from certain changes in the collective net pension liability.

Collective net pension liability
The net pension liability for benefits provided through (1) a cost-sharing pension plan or (2) a single-employer or agent pension plan in circumstances in which there is a special funding situation.

Collective pension expense
Pension expense arising from certain changes in the collective net pension liability.

APPENDIX B (continued)

Glossary of Terms

Contributions
Additions to a pension plan's fiduciary net position for amounts from employers, nonemployer contributing entities (for example, state government contributions to a local government pension plan), or employees. Contributions can result from cash receipts by the pension plan or from recognition by the pension plan of a receivable from one of these sources.

Cost-of-living adjustments
Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.

Cost-sharing employer
An employer whose employees are provided with pensions through a cost-sharing multiple-employer defined benefit pension plan.

Cost-sharing multiple-employer defined benefit pension plan (cost-sharing pension plan)
A multiple-employer defined benefit pension plan in which the pension obligations to the employees of more than one employer are pooled and pension plan assets can be used to pay the benefits of the employees of any employer that provides pensions through the pension plan.

Covered-employee payroll
The payroll of employees that are provided with pensions through the pension plan.

Deferred retirement option program (DROP)
A program that permits an employee to elect a calculation of benefit payments based on service credits and salary, as applicable, as of the DROP entry date. The employee continues to provide service to the employer and is paid for that service by the employer after the DROP entry date; however, the pensions that would have been paid to the employee (if the employee had retired and not entered the DROP) are credited to an individual employee account within the defined benefit pension plan until the end of the DROP period.

Defined benefit pension plans
Pension plans that are used to provide defined benefit pensions.

Defined benefit pensions
Pensions for which the income or other benefits that the employee will receive at or after separation from employment are defined by the benefit terms. The pensions may be stated as a specified dollar amount or as an amount that is calculated based on one or more factors such as age, years of service, and compensation. (A pension that does not meet the criteria of a defined contribution pension is classified as a defined benefit pension for purposes of Statement 68.)

APPENDIX B (continued)

Glossary of Terms

Defined contribution pension plans
Pension plans that are used to provide defined contribution pensions.

Defined contribution pensions
Pensions having terms that (1) provide an individual account for each employee; (2) define the contributions that an employer is required to make (or the credits that it is required to provide) to an active employee's account for periods in which that employee renders service; and (3) provide that the pensions an employee will receive will depend only on the contributions (or credits) to the employee's account, actual earnings on investments of those contributions (or credits), and the effects of forfeitures of contributions (or credits) made for other employees, as well as pension plan administrative costs, that are allocated to the employee's account.

Discount rate
The single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the total of the following:

1. The actuarial present value of benefit payments projected to be made in future periods in which (a) the amount of the pension plan's fiduciary net position is projected (under the requirements of Statement 68) to be greater than the benefit payments that are projected to be made in that period and (b) pension plan assets up to that point are expected to be invested using a strategy to achieve the long-term expected rate of return, calculated using the long-term expected rate of return on pension plan investments.
2. The actuarial present value of projected benefit payments not included in (1), calculated using the municipal bond rate.

Entry age actuarial cost method
A method under which the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age(s). The portion of this actuarial present value allocated to a valuation year is called the *normal cost.* The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is called the *actuarial accrued liability*.

Inactive employees
Terminated individuals that have accumulated benefits but are not yet receiving them, and retirees or their beneficiaries currently receiving benefits.

Measurement period
The period between the prior and the current measurement dates.

APPENDIX B (continued)

Glossary of Terms

Multiple-employer defined benefit pension plan
A defined benefit pension plan that is used to provide pensions to the employees of more than one employer.

Net pension liability
The liability of employers and nonemployer contributing entities to employees for benefits provided through a defined benefit pension plan.

Nonemployer contributing entities
Entities that make contributions to a pension plan that is used to provide pensions to the employees of other entities. For purposes of Statement 68, employees are not considered nonemployer-contributing entities.

Other postemployment benefits
All postemployment benefits other than retirement income (such as death benefits, life insurance, disability, and long-term care) that are provided separately from a pension plan, as well as postemployment healthcare benefits, regardless of the manner in which they are provided. Other postemployment benefits do not include termination benefits.

Pension plans
Arrangements through which pensions are determined, assets dedicated for pensions are accumulated and managed, and benefits are paid as they come due.

Pensions
Retirement income and, if provided through a pension plan, postemployment benefits other than retirement income (such as death benefits, life insurance, and disability benefits). Pensions do not include postemployment healthcare benefits and termination benefits.

Plan members
Individuals that are covered under the terms of a pension plan. Plan members generally include (1) employees in active service (active plan members) and (2) terminated employees who have accumulated benefits but are not yet receiving them and retirees or their beneficiaries currently receiving benefits (inactive plan members).

Postemployment
The period after employment.

APPENDIX B (continued)

Glossary of Terms

Postemployment benefit changes
Adjustments to the pension of an inactive employee.

Postemployment healthcare benefits
Medical, dental, vision, and other health-related benefits paid subsequent to the termination of employment.

Projected benefit payments
All benefits estimated to be payable through the pension plan to current active and inactive employees as a result of their past service and their expected future service.

Public employee retirement system
A special-purpose government that administers one or more pension plans; also may administer other types of employee benefit plans, including postemployment healthcare plans and deferred compensation plans.

Real rate of return
The rate of return on an investment after adjustment to eliminate inflation.

Service costs
The portions of the actuarial present value of projected benefit payments that are attributed to valuation years.

Single employer
An employer whose employees are provided with pensions through a single-employer defined benefit pension plan.

Single-employer defined benefit pension plan (single-employer pension plan)
A defined benefit pension plan that is used to provide pensions to employees of only one employer.

Special funding situations
Circumstances in which a nonemployer entity is legally responsible for making contributions directly to a pension plan that is used to provide pensions to the employees of another entity or entities and either of the following conditions exists:

1. The amount of contributions for which the nonemployer entity legally is responsible is *not* dependent upon one or more events or circumstances unrelated to the pensions.
2. The nonemployer entity is the only entity with a legal obligation to make contributions directly to a pension plan.

APPENDIX B (continued)

Glossary of Terms

Termination benefits
Inducements offered by employers to active employees to hasten the termination of services, or payments made in consequence of the early termination of services. Termination benefits include early-retirement incentives, severance benefits, and other termination-related benefits.

Total pension liability
The portion of the actuarial present value of projected benefit payments that is attributed to past periods of employee service in conformity with the requirements of Statement 68.

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LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

SCHEDULE OF EMPLOYER ALLOCATIONS AND SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR EMPLOYER REPORTING UNDER GOVERNMENTAL ACCOUNTING STANDARDS BOARD (GASB) STATEMENT NO. 68 AS OF JUNE 30, 2016 USING A MEASUREMENT DATE OF JUNE 30, 2015

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
SCHEDULE OF EMPLOYER ALLOCATIONS AND
SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR EMPLOYER REPORTING UNDER
GOVERNMENTAL ACCOUNTING STANDARDS
BOARD (GASB) STATEMENT NO. 68
AS OF JUNE 30, 2016
USING A MEASUREMENT DATE OF JUNE 30, 2015

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BROWN ARMSTRONG
Certified Public Accountants

INDEPENDENT AUDITOR'S REPORT

To the Audit Committee and Board of Administration of
Los Angeles City Employees' Retirement System
Los Angeles, California

Report on the Schedules

We have audited the accompanying schedule of employer allocations of the Los Angeles City Employees' Retirement System (LACERS) for the years ended June 30, 2015 and 2014, and the related notes. We have also audited the total for all entities of the columns titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total pension expense (specified columns totals) included in the accompanying schedule of pension amounts by employer as of and for the year ended June 30, 2015, and the related notes.

Management's Responsibility for the Schedules

Management is responsible for the preparation and fair presentation of these schedules in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of schedules that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on the schedule of employer allocations and the specified column totals included in the schedule of pension amounts by employer based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the schedule of employer allocations and specified column totals included in the schedule of pension amounts by employer are free from material misstatement.

Our audit involved performing procedures to obtain audit evidence about the amounts and disclosures in the schedule of employer allocations and specified column totals included in the schedule of pension amounts by employer. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the schedule of employer allocations and specified column totals included in the schedule of pension amounts by employer, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to LACERS preparation and fair presentation of the schedule of employer allocations and specified column totals included in the schedule of pension amounts by employer in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of LACERS internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the schedule of employer allocations and specified column totals included in the schedule of pension amounts by employer.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the schedules referred to above present fairly, in all material respects, the employer allocations as of June 30, 2015 and 2014, and net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total pension expense for the total of all participating entities for LACERS as of and for the year ended June 30, 2015, in accordance with accounting principles generally accepted in the United States of America.

Other Matters

We have audited, in accordance with auditing standards generally accepted in the United States of America, the financial statements of LACERS as of and for the year ended June 30, 2015, and our report thereon, dated November 30, 2015, expressed an unmodified opinion on those financial statements.

Restriction on Use

Our report is intended solely for the information and use of LACERS management, the Audit Committee of LACERS, the Board of Administration of LACERS, and Plan sponsors and their auditors and is not intended to be, and should not be, used by anyone other than these specified parties.

BROWN ARMSTRONG
ACCOUNTANCY CORPORATION

Brown Armstrong
Accountancy Corporation

Bakersfield, California
August 15, 2016

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
SCHEDULE OF EMPLOYER ALLOCATIONS
FOR THE FISCAL YEARS ENDED JUNE 30, 2015 AND 2014

	Proportionate Shares					
Employer	2015			2014		
	Actual Contributions	Percentage*	Net Pension Liability	Actual Contributions	Percentage*	Net Pension Liability
City	$ 312,035,750	81.869%	$ 4,084,786,762	$ 293,172,196	81.972%	$ 3,654,125,793
Airports	53,280,478	13.979%	697,482,231	49,369,708	13.804%	615,348,678
Harbor	15,824,695	4.152%	207,157,368	15,107,328	4.224%	188,299,155
Total for all Employers	$ 381,140,923	100.000%	$ 4,989,426,361	$ 357,649,232	100.000%	$ 4,457,773,626

* The unrounded percentages are used in the allocation of the Net Pension Liability among employers.

NOTE 1 – PLAN DESCRIPTION

The Los Angeles City Employees' Retirement System (LACERS) is under the exclusive management and control of its Board of Administration (the Board), whose authority is granted by statute in Article XVI, Section 17 of the California State Constitution, and Article XI of the Los Angeles City Charter. LACERS is a Department of the Municipality of the City of Los Angeles (the City). LACERS financial statements are included in the City's Annual Financial Report as a pension trust fund. LACERS operates a single-employer defined benefit plan. Changes to the benefit terms require approval by the City Council.

LACERS covers all full-time personnel and department-certified part-time employees of the City, except for sworn employees of the Fire and Police departments, Department of Water and Power employees, and elected officials who elected to participate in an alternative Defined Contribution Plan, and certain Port Police officers of the Harbor Department who elected to opt out of LACERS. For the presentation of the detailed allocation, the City has requested to break out three individual entities separately, which are the City, Airports, and Harbor (Employers).

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING AND REPORTING POLICIES

Basis of Presentation and Basis of Accounting

Employers participating in LACERS are required to report pension information in their financial statements for fiscal periods beginning on or after June 15, 2014, in accordance with Governmental Accounting Standards Board (GASB) Statement No. 68, *Accounting and Financial Reporting for Pensions – an Amendment of GASB Statement No. 27*. The Schedule of Employer Allocations along with LACERS audited financial statements, the GASB Statement No. 67 Actuarial Valuation as of June 30, 2015, and the GASB Statement No. 68 Actuarial Valuation Based on June 30, 2015 Measurement Date for Employer Reporting as of June 30, 2016 prepared by LACERS independent actuary, provide the required information for financial reporting related to LACERS that Employers may use in their financial statements.

The accompanying schedule was prepared by LACERS independent actuary and was derived from information provided by LACERS in accordance with accounting principles generally accepted in the United States of America as applicable to governmental organizations.

LACERS funding policy under Article XI Sections 1158 and 1160 of the City Charter provides for periodic Employer contributions at actuarially-determined rates that, expressed as percentages of annual covered payroll together with certain fixed amounts, are sufficient to accumulate the required assets to pay benefits when due. For the year ended June 30, 2015, the actuarially determined contributions of Employers to LACERS by the City were 21.50% of covered payroll, based on the June 30, 2013 actuarial valuation. Upon closing the fiscal year 2014-15, LACERS recalculated Employer contributions using actual payroll incurred during the fiscal year, which was less than projected covered payroll used by the City to make the advanced payment at the beginning of the fiscal year. As a result, Employer contributions received were more than the actuarially determined rate, and LACERS returned the excess to the Employers as a credit towards future Employer contributions. This resulted in an effective rate of Employer contribution of 20.77%. Contributions for Employers contributing to LACERS are reported on an accrual basis of accounting.

The employer allocation schedule includes the proportionate shares for each Employer, reflecting a methodology that allocates the Net Pension Liability and Pension Amounts based on each Employer's share of the total Employer contributions among the three Employers. Each Employer's share as of June 30, 2015 and 2014, is determined by the Employer's contributions for the 2014-15 and 2013-14 fiscal years, respectively.

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING AND REPORTING POLICIES (Continued)

Use of Estimates in the Preparation of the Schedule

The preparation of this schedule in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts and disclosures during the reporting period. Actual results could differ from those estimates.

NOTE 3 – RELATIONSHIP TO THE BASIC FINANCIAL STATEMENTS

LACERS policy for contributions states that actuarially determined rates expressed as a percentage of employee pensionable wages are required to finance the costs of benefits earned by LACERS Members during the year, with an additional amount to finance any unfunded liability. Employer contributions are reported in the basic financial statements and are the basis for the proportionate share calculation.

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
SCHEDULE OF PENSION AMOUNTS BY EMPLOYER
AS OF AND FOR THE FISCAL YEAR ENDED JUNE 30, 2015

		Deferred Outflows of Resources					Deferred Inflows of Resources					Pension Expense		
Employer	Net Pension Liability	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Earnings on Pension Plan Investments	Changes in Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Earnings on Pension Plan Investments	Changes in Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Proportionate Share of Allocable Pension Expense	Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Pension Expense
City	$ 4,084,786,762	$ -	$ -	$ 414,193,761	$ 15,804,046	$ 429,997,807	$ 176,040,714	$ 117,688,005	$ -	$ 4,002,623	$ 297,731,342	$ 379,853,739	$ 3,460,188	$ 383,313,927
Airports	697,482,231	-	-	70,724,081	6,802,420	77,526,501	30,059,163	20,095,368	-	15,081,474	65,236,005	64,860,480	(2,627,144)	62,233,336
Harbor	207,157,368	-	-	21,005,574	-	21,005,574	8,927,793	5,968,473	-	3,522,369	18,418,635	19,264,042	(833,044)	18,430,998
Total for All Employers	$ 4,989,426,361	$ -	$ -	$ 505,923,416	$ 22,606,466	$ 528,529,882	$ 215,027,670	$ 143,751,846	$ -	$ 22,606,466	$ 381,385,982	$ 463,978,261	$ -	$ 463,978,261

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
NOTES TO SCHEDULE OF PENSION AMOUNTS BY EMPLOYER
AS OF AND FOR THE FISCAL YEAR ENDED JUNE 30, 2015

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING AND REPORTING POLICIES

Basis of Presentation and Basis of Accounting

For the presentation of the detailed allocation, the City of Los Angeles (the City) has requested to break out three individual entities separately, which are the City, Airports, and Harbor (Employers). Employers participating in Los Angeles City Employees' Retirement System (LACERS) are required to report pension information in their financial statements for fiscal periods beginning on or after June 15, 2014, in accordance with Governmental Accounting Standards Board (GASB) Statement No. 68, *Accounting and Financial Reporting for Pensions – an Amendment of GASB Statement No. 27*. The Schedule of Pension Amounts by Employer along with LACERS audited financial statements, the GASB Statement No. 67 Actuarial Valuation as of June 30, 2015, and the GASB Statement No. 68 Actuarial Valuation Based on June 30, 2015 Measurement Date for Employer Reporting as of June 30, 2016 prepared by LACERS independent actuary, provide the required information for financial reporting related to LACERS that Employers may use in their financial statements.

The accompanying schedule was prepared by LACERS independent actuary and was derived from information provided by LACERS in accordance with accounting principles generally accepted in the United States of America as applicable to governmental organizations.

Use of Estimates in the Preparation of the Schedule

The preparation of this schedule in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts and disclosures during the reporting period. Actual results could differ from those estimates.

NOTE 2 – ACTUARIAL ASSUMPTIONS

Actuarial Methods and Assumptions Used to Determine Total Pension Liability

The actuarial assumptions used in the June 30, 2015 valuation was based on the results of an actuarial experience study for the period July 1, 2011, through June 30, 2014. Measurements as of the reporting date are based on the fair value of assets as of June 30, 2015, and the Total Pension Liability as of the valuation date June 30, 2015.

The components of the Plan's Net Pension Liability at June 30, 2015 and 2014, were as follows:

	Fiscal Year Ended June 30, 2015	Fiscal Year Ended June 30, 2014
Total Pension Liability	$ 16,909,996,380	$ 16,248,853,099
Plan Fiduciary Net Position	(11,920,570,019)	(11,791,079,473)
Plan's Net Pension Liability	$ 4,989,426,361	$ 4,457,773,626
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	70.5%	72.6%

NOTE 2 – ACTUARIAL ASSUMPTIONS (Continued)

Actuarial Methods and Assumptions Used to Determine Total Pension Liability (Continued)

The Total Pension Liability for June 30, 2015, was determined based on the June 30, 2015 actuarial valuation, using the following actuarial assumptions, applied to all periods included in the measurement:

ACTUARIAL VALUATION ASSUMPTIONS

Valuation Date	June 30, 2015
Investment Rate of Return	7.50%, net of pension plan investment expense, including inflation
Projected Salary Increases	Ranges from 4.40% to 10.50% based on years of service
Inflation	3.25%
Cost-of-Living Adjustments	Tier 1: 3.00%, Tier 2: 2.00%, actual increases are contingent upon Consumer Price Index (CPI) increases with a 3.00% maximum for Tier 1 and a 2.00% maximum for Tier 2.

Postemployment mortality rates for healthy retirees and beneficiaries were based on the RP-2000 Combined Healthy Mortality Table projected with scale BB to the year 2020, set back one year for males and with no setback for females. Postemployment mortality rates for disabled retirees were based on the RP-2000 Combined Healthy Mortality Table projected with scale BB to the year 2020, set forward seven years for males and set forward eight years for females.

For pre-retirement mortality, withdrawal rates, disability rates, and service retirement rates, the rates vary by age, gender, and/or service.

Discount Rate

The discount rate used to measure the Total Pension Liability was 7.5%. The projection of cash flows used to determine the discount rate assumed that contributions from plan Members will be made at the current contribution rate and that contributions from the Employers will be made at contractually required rates, actuarially determined. For this purpose, only Employer contributions that are intended to fund benefits for current plan Members and their beneficiaries are included. Projected Employer contributions that are intended to fund the service costs for future plan Members and their beneficiaries, as well as projected contributions from future plan Members, are not included. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan Members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability as of June 30, 2015.

Long-Term Expected Rate of Return by Asset Class

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

NOTE 2 – ACTUARIAL ASSUMPTIONS (Continued)

Long-Term Expected Rate of Return by Asset Class (Continued)

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

Amortization of Deferred Outflows and Deferred Inflows of Resources

The difference between projected and actual investment earnings on pension plan investments is amortized over 5 years on a straight-line basis. One-fifth was recognized in pension expense during the measurement period, and the remaining difference between projected and actual investment earnings on pension plan investments at June 30, 2015, is to be amortized over the remaining periods.

The differences between expected and actual experience are recognized over 5.42 years, which is the average of the expected remaining service lives of all employees that are provided with pensions through LACERS as of June 30, 2015.

In addition, the difference between the actual Employer contributions and the proportionate share of the Employer contributions during the measurement period ended June 30, 2015, is recognized over the same period which is 5.42 years. The Schedule of Pension Amounts by Employer does not reflect contributions made to LACERS subsequent to the measurement date as defined in GASB Statement No. 68 paragraphs 54, 55, and 57. Appropriate treatment of such amounts is the responsibility of the Employers.

NOTE 3 – RELATIONSHIP TO THE BASIC FINANCIAL STATEMENTS

The components of the schedule associated with pension expense and deferred outflows and inflows of resources have been determined based on the net increase in fiduciary net position for the LACERS as shown in the LACERS Statement of Changes in Fiduciary Net Position for the year ended June 30, 2015 and in accordance with requirements promulgated by GASB Statements No. 67 and No. 68. The net pension liability at June 30, 2015, is reported in the Notes to Los Angeles City Employees' Retirement System Basic Financial Statements and Required Supplementary Information following the Notes.

Los Angeles City Employees' Retirement System

Mandatory Transfer of Tier 2 Members to Tier 1; New Tier 3 Benefits for New Entrants; and Change in Eligibility Requirements for Retiree Health Plan for Part-Time Employees

Segal Consulting

Segal Consulting

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March 14, 2016

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

Dear Tom:

We are pleased to submit our study of the cost for three principal changes adopted by the City in Ordinance No. 184134. Under that Ordinance, the City has: (1) rescinded Tier 2 and directed the Los Angeles City Employees' Retirement System (LACERS) to transfer all current Tier 2 members retroactively to Tier 1, (2) approved new Tier 3 benefits for new members of LACERS, and (3) changed, prospectively, the eligibility requirements for the Retiree Health Plan for certain part-time employees.*

For the mandatory transfer of Tier 2 members to Tier 1, effective February 21, 2016, the Ordinance states: "The City shall contribute to the Retirement System the funds necessary, as determined by the actuary for the Retirement System, to make the Retirement Fund whole for any contributions that would have been made by the City and Tier 2 members had those members been members of Tier 1 from their respective initial dates of membership in LACERS." Accordingly, LACERS provided Segal Consulting ("Segal") with the biweekly payroll for all Tier 2 members who entered LACERS membership between July 1, 2013 and February 20, 2016. The lump sum cost of the transfer was determined based on this payroll information and on the Tier 1 and Tier 2 Normal Cost rates adopted by the Board covering the period that Tier 2 was in existence, or from July 1, 2013 to February 20, 2016.

For the new Tier 3, the benefits would only be offered to new employees entering LACERS on or after February 21, 2016, for which actual data is not yet available. Accordingly, we have assumed in this valuation that their demographic profiles (e.g., entry age, composition of male versus female, etc.) can be approximated by the data profile of what were then active Tier 2 members hired in the two years prior to the most recent valuation as of June 30, 2015. No current inactive vested members, retirees, or beneficiaries have been included in this valuation. With the exception of the service retirement assumptions, the Tier 3 costing uses the same actuarial assumptions and methodologies adopted by the Board for use in the June 30, 2015 valuation.

** That is, the eligibility requirements have been changed to be based on eligibility service rather than benefit service.*

For the costing of the change in the eligibility requirements for the Retiree Health Plan for certain part-time employees, LACERS provided Segal with a list of retirees whose eligibility service was greater than or equal to 10 years, but were not receiving a health subsidy from LACERS because their benefit service was less than 10 years. Besides those retirees who would be now eligible for a health benefit immediately, we also estimated the cost of providing the benefit for current active part-time members and inactive members who otherwise would be projected to have less than 10 years of benefit service at their expected retirement ages. This part of the study again uses the same actuarial assumptions and methodologies adopted by the Board for use in the June 30, 2015 Retiree Health Plan valuation, with the exception of the service retirement assumptions.

The actuarial calculations were completed under the supervision of Andy Yeung, ASA, MAAA, FCA, Enrolled Actuary and Thomas Bergman, ASA, MAAA, Enrolled Actuary. Both are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

Sincerely,

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

By:

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

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

DNA/gxk

Thomas Bergman, ASA, MAAA, EA
Associate Actuary

SECTION 1

BASIS FOR RECOMMENDATIONS

SECTION 2

VALUATION RESULTS

SECTION 3

SUPPORTING EXHIBITS

BENEFIT CHANGES

Rescinding of Tier 2 and Transfer of Tier 2 Members to Tier 1

- In the June 30, 2015 actuarial valuation reports we noted that Tier 2 has been rescinded, that all Tier 2 members will be transferred to Tier 1, and that new hires will be enrolled in a new Tier 3. However, as of the date of issuance of the June 30, 2015 valuation, the provisions of Tier 3 were not yet determined and Tier 2 employees were not yet transferred to Tier 1. For those reasons, we continued to calculate a Normal Cost rate in the June 30, 2015 valuation for all Tier 2 employees based on the Tier 2 plan provisions.

- Subsequent to the issuance of the June 30, 2015 valuation reports, Ordinance No. 184134 ("the Ordinance") was adopted by the City Council on January 12, 2016, and Tier 2 was rescinded. Section 4.1002.1 of the Ordinance states that "effective February 21, 2016, all persons who entered LACERS membership between July 1, 2013 and February 21, 2016[1], as members of Tier 2 of the Retirement System shall be members of Tier 1 of the Retirement System". Regarding past service under Tier 2 for these transferring members, the Ordinance states:

  > The City shall contribute to the Retirement System the funds necessary, as determined by the actuary for the Retirement System, to make the Retirement Fund whole for any contributions that would have been made by the City and Tier 2 members had those members been members of Tier 1 from their respective initial dates of membership in LACERS. Such contributions will reflect the difference between the Tier 1 and Tier 2 Normal Cost rates calculated for the affected Tier 2 members adjusted with interest at the assumed earnings rate.

- In order to determine the funds necessary to make the Retirement Fund whole, as noted in our cover letter to this report, LACERS provided Segal with the biweekly payroll for all Tier 2 members who entered LACERS membership between July 1, 2013 and February 20, 2016. The lump sum cost of the retroactive upgrade of past Tier 2 service to Tier 1 is included in Section 2A of this report.

- Any difference in the future Tier 1 employer Normal Cost rate that results from the transfer of Tier 2 members to Tier 1[2] would be reflected in the next valuation as of June 30, 2016 and is not included herein. We believe it is reasonable to not

[1] *Since members hired <u>on or after February 21, 2016</u> become members of Tier 3, with the exception of those members who qualify for Tier 1 membership pursuant to Section 4.1080.2(b) of the Ordinance ("Exceptions from Tier 3 Membership for Members Who Qualify for Tier 1 Membership"), LACERS provided payroll information for former Tier 2 members <u>through February 20, 2016</u> (rather than through February 21, 2016) as discussed in the next bullet.*

[2] *Such difference could be caused by differences in demographics between Tier 1 and Tier 2 members. There would also be a small adjustment to reflect all Tier 2 members who transfer to Tier 1 would pay a member rate of 11% (rather than the average member rate of 10.94% observed and used in the June 30, 2015 valuation).*

change the Tier 1 Normal Cost rates until the 2017/2018 fiscal year (set by the June 30, 2016 valuation results) because there were eleven times as many Tier 1 members compared to Tier 2 members as of June 30, 2015. Therefore, we do not anticipate a large change in the re-measured Tier 1 Normal Cost rate to reflect the blended Tier 1/Tier 2 membership on account of the transfer.

Adoption of New Tier 3 Benefits

- Section 4.1080.2(a) of the Ordinance states that "effective February 21, 2016, and ongoing, every employee shall become a member of Tier 3 of the Retirement System on the first day of employment in a position with the City in which he or she is not excluded from membership pursuant to the provisions of Subsection (c) of this section, unless he or she qualifies for Tier 1 membership pursuant to the exceptions to Tier 1 membership set forth in Subsection (b)." To estimate the cost of the new Tier 3, this study assumes that the demographic profiles of the members entering the new tier would be comparable to what were then Tier 2 active members hired in the two years prior to the June 30, 2015 actuarial valuation.

- We have calculated the Normal Cost contribution rates under the new Tier 3 plan of benefits for only the Tier 2 members included in this study. The employer and employee Normal Cost rates for the Pension and Health Plans under the new tier are shown in Section 2C of this report. We recommend that the LACERS Board of Administration ("the Board") adopt a tier-specific employer Normal Cost rate for each of the current and the new tiers of benefit for the Pension and Health Plans.

- There is no change in Unfunded Actuarial Accrued Liability (UAAL) due to the adoption of the new Tier 3 plan. This is because the actuarial accrued liability and the actuarial value of assets for the new Tier 3 are equal to $0 as of the date of this determination. However, in addition to the employer Normal Cost rates provided in Section 2C, the employer would have to continue to contribute the same Tier 1 and Tier 2 UAAL rates of 16.44% (Pension Plan) and 1.46% (Health Plan) that were determined in the June 30, 2015 valuation[3], on the payroll of the Tier 3 members. This is because the UAAL rates were determined as a level percent of pay including payrolls for all current members plus new entrants who entered LACERS after June 30, 2015. Note that this Health Plan UAAL rate of 1.46% is prior to any effect that the change in eligibility requirements for the Retiree Health Plan for part-time employees would have on the Health Plan UAAL. This topic is briefly discussed in the next subsection.

[3] *Assumes contributions are made on July 15. These UAAL rates are also shown in Section 2C of this report.*

Change in Eligibility Requirements for Retiree Health Plan for Part-Time Employees

- Section 4.1104 of the Ordinance states:

  > Any retired member who retired before February 21, 2016, who would have been eligible for a benefit under this Chapter had he or she retired on or after February 21, 2016[4], shall be entitled to apply to LACERS, under rules and procedures to be developed by LACERS, to enroll or participate in the retiree health program established by this Chapter.

  On January 14, 2016 LACERS provided us with a list of 97 retirees whose eligibility service was greater than or equal to 10 years, but who were not receiving a health subsidy from LACERS because their benefit service was less than 10 years. As of June 30, 2015, 88 of these 97 retirees were classified as retired in our actuarial valuation, and the other 9 were classified as active or inactive vested members. We have included the costs of providing a health subsidy to the 88 retired members in Section 2A of this report. We have also included the costs associated with allowing future retirees from the current active and inactive vested members with eligibility service greater than or equal to 10 years but with benefit service less than 10 years to receive a retiree health subsidy.

[4] *Section 4.1104 of the Ordinance earlier states that "effective February 21, 2016, a part-time employee member shall be eligible for a benefit under this Chapter when he or she is age fifty-five (55) with a minimum often (10) years of Service, provided that he or she is receiving a service retirement benefit or disability retirement benefit from LACERS under Chapter 10." Section 4.1110 indicates that "part-time employee members shall receive full, rather than prorated, Service for purposes of qualifying for benefits under this Article."*

ASSUMPTIONS AND METHODOLOGIES

Rescinding of Tier 2 and Transfer of Tier 2 Members to Tier 1

- As noted earlier, the City rescinded the Tier 2 plan of benefits and Tier 2 members were transferred to Tier 1 in February 2016. Accordingly, we have determined the costs associated with retroactively transferring all Tier 2 members to Tier 1. For past service under Tier 2, Section 4.1002.1(a) of Ordinance No. 184134 states:

  > The City shall contribute to the Retirement System the funds necessary, as determined by the actuary for the Retirement System, to make the Retirement Fund whole for any contributions that would have been made by the City and Tier 2 members had those members been members of Tier 1 from their respective initial dates of membership in LACERS. Such contributions will reflect the difference between the Tier 1 and Tier 2 Normal Cost rates calculated for the affected Tier 2 members adjusted with interest at the assumed earnings rate."

  In order to determine the funds necessary to make the Retirement Fund whole, LACERS provided the biweekly payroll for all affected Tier 2 members. These members are defined as all employees who entered LACERS membership between July 1, 2013 and February 21, 2016, except as provided otherwise in Section 4.1002.1 of the Los Angeles Administrative Code. As stipulated by the Ordinance, the lump sum amount will reflect the difference between the Tier 1 and Tier 2 Normal Cost rates that were in effect over this period, applied to the actual payroll amounts provided by LACERS. The total (employer and employee) Normal Cost rates, shown as of the beginning of the plan year for the retirement and health plans combined[5], are as follows:

Normal Cost Rates in Effect During Plan Year Ending June 30:

Year[6]	Tier 1	Tier 2	Difference
2014	20.72%	13.08%	7.64%
2015	20.65%	13.08%	7.57%
2016[7]	20.58%	13.67%	6.91%

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[5] *Note that in this report the lump sum amount to be paid is broken down between the Pension Plan and the Health Plan.*

[6] *There is a 12-month delay between the date of the valuation and the date of rate implementation. For instance, the Normal Cost rates for the 2013/2014 fiscal year were calculated in the June 30, 2012 valuations.*

[7] *The normal cost rates for the year ended June 30, 2016 are applied to the payroll for the portion of that year from July 1, 2015 to February 20, 2016 only.*

In determining the lump sum amount, we have taken into account the interest rate assumptions that were previously adopted by the Board. That is, we used a 7.75% interest assumption for plan years ending June 30, 2014 and 2015, and a 7.50% interest assumption for plan year ending June 30, 2016. The total lump sum amount that we determined in Section 2A of this report includes interest to February 20, 2016[8].

Adoption of New Tier 3 Benefits

- With the exception of the service retirement assumptions, all of the actuarial assumptions used in this study for Tier 3 are the same as those adopted by the Board for use in the June 30, 2015 valuation. Note that the Consumer Price Index (CPI) assumption used for determining the COLA for new Tier 3 members is assumed to follow the assumption used for prior Tier 2 members (i.e., benefit increases due to CPI are subject to a 2.00% maximum), since the new Tier 3 cost of living provision is similar to the former Tier 2 provision (but without the Tier 2 provision that previously allowed for the purchase of additional COLA not to exceed 1.00%).

- Under the current Tier 1 pension formula, the normal retirement age to receive an unreduced retirement benefit is based on attaining the earlier of: (1) age 60 with at least 10 years of continuous service, (2) age 55 with at least 30 years of service, or (3) age 70. A subsidized, reduced early retirement benefit is paid for those members attaining age 55 with at least 10 years of continuous service or any age (under 55) with at least 30 years of service. The reduction is 1.5% for each year of retirement between 55 and 60 and 3.0% for each year of retirement before age 55.

  The current Tier 1 retirement rates (probabilities) are structured to anticipate lower incidences of retirement for members who have not yet attained age 55 with 30 years of service but can retire with a reduced early pension benefit, while using relatively higher retirement rates after members attain age 55 with 30 years of service since they can receive an unreduced pension benefit.

- We have been requested to determine the employer contribution rate requirements of the new tier, with benefits as discussed in the following Benefit Provisions subsection. There are more restrictive age and service requirements under the new tier for a member to receive an unreduced pension benefit (i.e., normal retirement age), and the retirement benefit factors are lower for the new tier. For these reasons, we have adjusted the Tier 1 retirement rates to be used for Tier 3. In general, where new retirement factors are lower than under the current pension formula we would typically lower the retirement rates, and where new retirement factors are higher than under the current pension formula (not applicable in this case) we would typically increase the retirement rates. In most cases, the retirement factors for Tier 3 members are about 93%-97% of the factors for Tier 1 members, ignoring differences in the final average compensation and COLA provisions

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[8] *Since interest continues to accrue after February 20, 2016, the lump sum amount that we have calculated in Section 2A will need to be adjusted with interest from February 20, 2016 until the date the lump sum is actually settled as part of the true-up process for the 2015/2016 prepaid contributions.*

between the two tiers. Therefore, we have lowered the current Tier 1 retirement rates to be used for Tier 3 members at every age by 1%[9], except for the non-55/30 rates as ages 50-53, which remain unchanged.

- As noted above, in the June 30, 2015 valuation separate sets of retirement assumptions were applied before and after members attain eligibility for unreduced benefits upon attaining age 55 with 30 years of service. For the new Tier 3, we have retained the current structure of having two sets of retirement assumptions for members with and without 30 years of service. There are some benefit increases after 30 years of service within the Tier 3 formula, and members with 30 years of service are still considered more likely to retire than members with less service due to their higher benefit. Those with at least 30 years of service generally have a higher "replacement ratio" (i.e., post-retirement income vs. pre-retirement income) making them more able and thus more likely to retire. These service retirement assumptions will be reviewed as retirement experience under the new tier becomes available.

  The specific Tier 3 retirement rates we used for this study can be found in Section 3, Exhibit I of this report.

- Besides the pension benefits payable at retirement, the new tier also includes a modification to the amount required for a member to purchase service under the Government Service Buyback (GSB) Program. Under the current GSB program for Tier 1 members, a member can purchase service for periods of uncompensated maternity leave or service credit previously earned at another governmental agency by either (a) transferring the accumulated contributions currently on deposit at the other employer or (b) paying an amount equal to the member's contribution rate at LACERS times the current annual salary.

  Under the new Tier 3 benefit, the purchase price is based on the employee contribution rate plus the "City Contribution Rate" (as defined in Ordinance 184134) times the current annual salary. Under the new tier, the limit on the number of years of service that can be purchased is the amount that would not cause the member's service retirement allowance to exceed eighty percent (80%) of final compensation.

  Note that the additional cost, if any, from Government Service Buybacks for Tier 3 members has not been included in the costs presented in this report. This is consistent with the current practice for Tier 1 members where the additional cost from the Tier 1 members, if any, is not prefunded until such purchases actually occur.

[9] *For instance, we have lowered the Tier 1 non-55/30 retirement rate at age 54 of 16% by 1% to 15%. This means that the Tier 3 rate at that age is 94% of the Tier 1 rate (i.e., 15% / 16% = 94%).*

Change in Eligibility Requirements for Retiree Health Plan for Part-Time Employees

- As previously mentioned, Section 4.1104 of the Ordinance states:

  > Any retired member who retired before February 21, 2016, who would have been eligible for a benefit under this Chapter had he or she retired on or after February 21, 2016, shall be entitled to apply to LACERS, under rules and procedures to be developed by LACERS, to enroll or participate in the retiree health program established by this Chapter.

  For the 88 retirees included in this study, we applied the same enrollment (i.e., whether a member enrolls in a LACERS health plan), plan election (i.e., which LACERS plan the retirees enrolls in), and spouse coverage assumptions as for active members retiring in the future, as described in Exhibit II of our June 30, 2015 Health Plan valuation.

  As directed by LACERS, we applied the eligibility service when calculating the maximum health subsidy for the 88 retirees who had less than 10 years of benefit service at retirement. That is, we did not prorate the health subsidy for any part-time service.

  Note that we did not reflect the liability impact for any current or future retirees whose benefit service is already greater than 10 years, consistent with the Ordinance that their subsidy will continue to be based on their benefit service. Additionally, we have not calculated any liability for potential retroactive payments, consistent with the Ordinance to provide this enhanced benefit on a prospective basis only.

BENEFIT PROVISIONS

- A comparison of the major benefit provisions under the current Tier 1 and the new Tier 3 is provided in Section 3, Exhibit II. We have chosen to include the Tier 1 provisions, rather than the Tier 2 provisions, since Tier 2 has been rescinded (as noted earlier) and the plan provisions listed herein are similar to what will be provided in the June 30, 2016 valuation reports. Note that the prior Tier 2 plan provisions can be found starting on page 39 of the June 30, 2015 funding valuation report for the Pension Plan and on page 40 of the valuation report for the Health Plan.

  The new tier provisions shown herein in Exhibit II are based on the provisions contained in Ordinance No. 184134, which was adopted by the City Council on January 12, 2016. All employees who become members of the Retirement System on or after February 21, 2016 will become members of Tier 3, with the exceptions noted in the Ordinance.

- Under the current Tier 1, pension benefits are calculated based on the highest average salary earned during any 12-month period and salary would include base salary plus regularly assigned bonuses or premium pay. Under the new Tier 3, pension benefits would be calculated based on the highest average salary earned during any 36-month period and salary would include base salary and any items of compensation that are designated as pension based.

  The "current annual pensionable salary" provided by LACERS for the Tier 2 members in the June 30, 2015 valuation and carried over for inclusion in this study reflects base salary only. We do not currently have sufficient information to determine the effect on projected average compensation of the pension based compensation items that are referred to in the Ordinance for Tier 3. Therefore, the results provided herein are based on base salary only. However, to the extent that the pension based compensation items would increase the projected average compensation in the calculation of the retirement benefits, there would be a somewhat offsetting increase in the total payroll upon which the costs are those retirement benefits are spread, which should result in a relatively small impact on the Normal Cost rates provided in this report. However, that would not be the case for the retiree health benefits because the value of the health benefit is not dependent on compensation. This would result in some overstatement of the Normal Cost rate provided in this study for the Retiree Health Plan.

- Under the current Tier 1 pension formula, normal retirement age to receive an unreduced retirement benefit is based on attaining the earlier of: (1) age 60 with 10 years of continuous service, (2) age 55 with 30 years of service, or (3) age 70. A subsidized, reduced early retirement benefit is paid for those members attaining age 55 with 10 years of continuous service or any age (under 55) with 30 years of service. The reduction is 1.5% for each year of retirement between 55 and 60 and 3.0% for each year of retirement before age 55.

Under the new Tier 3, normal retirement age for unreduced benefits is either age 60 with 10 years of service (including 5 years of continuous service) at a 1.50% Retirement Factor, or age 60 with 30 years of service (including 5 years of continuous service) at a 2.00% Retirement Factor.

A subsidized, reduced early retirement benefit is paid for those members retiring prior to age 60 with 30 years of service (including 5 years of continuous service). Benefits are unreduced for ages 55-59, while the reduction is 10.5% at age 54 and 3.0% for each year of retirement before age 54.

In addition, Tier 3 offers an enhanced retirement benefit within the Tier 3 formula at either age 63 with 10 years of service (including 5 years of continuous service) or age 63 with 30 years of service (including 5 years of continuous service). The Retirement Factor is larger under the enhanced retirement benefit after 30 years of service.

- The current Tier 1 pension formula is:
  Normal Retirement Factor (2.16%) x Final Compensation (12-month) x Service Credit x Early Retirement Reduction Factor (age based).

  For early retirement, the Tier 1 Retirement Factors at sample ages, with the Early Retirement Reduction Factor applied, are provided below:

Age	Retirement Factor[10]	Age	Retirement Factor[10]
45	1.35%	52	1.80%
47	1.48%	55	2.00%
50	1.67%	60	2.16%

- Under the new Tier 3, the pension formula is:
  Retirement Factor x Final Compensation (36-month) x Service Credit x Early Retirement Reduction Factor (age based).

  For members reaching normal retirement eligibility, the Retirement Factor is 1.50%, unless the member has 30 years of service in which case the Retirement Factor is 2.00%. For members reaching enhanced retirement eligibility, the Retirement Factor is 2.00%, unless the member has 30 years of service in which case the Retirement Factor is 2.10%.

[10] *With the Early Retirement Reduction Factor applied.*

For early retirement, the Tier 3 Retirement Factors at sample ages, with the Early Retirement Reduction Factor applied, are provided below:

Age	Retirement Factor[11]	Age	Retirement Factor[11]
45	1.25%	52	1.67%
47	1.37%	55	2.00%
50	1.55%	60	2.00%

- The maximum retirement allowance for members in Tier 1 is 100% of Final Compensation, whereas the maximum for members in Tier 3 is 80% of Final Compensation.

- Members in Tier 3 will be entitled to a 2% COLA after retirement, instead of the 3% COLA for the current Tier 1.

- Under Tier 1, members pay a contribution rate of 7% (Pension Plan only) effective from July 1, 2011 until June 30, 2026, or until the ERIP Cost Obligation is fully paid, whichever comes first, and then the rate becomes 6%. Beginning January 1, 2013, all non-represented members and members in certain bargaining groups are required to pay an additional 4% member contribution rate to defray the cost of providing a Retiree Medical Plan premium subsidy. 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).

  Under Tier 3, members pay a contribution rate of 7% (Pension Plan only). All members are required to pay an additional 4% member contribution rate to defray the cost of providing a Retiree Medical Plan premium subsidy. Members with no eligible spouse or domestic partner at retirement can request a refund of the survivor portion of the member contributions (i.e., based on a contribution rate of 0.5% of pay).

  For tax considerations and other reasons, all of the member contributions for both tiers are designated to fund part of the Normal Cost contribution rates for the Pension Plan, and members do not participate in the payment of any Normal Cost for the Health Plan. Employees also do not pay any of the cost to amortize the UAAL for the Pension or Health Plans.

- The Tier 3 Health Plan provisions are the same as the Tier 1 provisions. However, there has been a change in the eligibility requirements for the Retiree Health Plan for part-time employees pursuant to the Ordinance as noted earlier, and that change is reflected herein.

[11] *With the Early Retirement Reduction Factor applied.*

A. Discussion of Results

➤ Retroactive Upgrade of Past Tier 2 Service to Tier 1

As discussed earlier, we have determined the lump sum amounts to make the Retirement Fund whole after the retroactive transfer of Tier 2 members to Tier 1, pursuant to Section 4.1002.1(a) of the Ordinance. The lump sum amounts, separate for the Pension Plan and the Health Plan, and broken down by payroll groups as requested by LACERS, are summarized below. These amounts have been determined as of the date that Tier 2 has been rescinded, or February 20, 2016 (i.e., the day before Tier 3 becomes effective). Since the lump sum amounts will be settled after that date, the amounts shown below will need to be adjusted by LACERS with interest. The current interest rate assumption adopted by the Board is 7.50% per annum.

Lump Sum Amounts as of February 20, 2016

Plan	General Fund	Airports	Harbor	LACERS	LAFPP	Total
Pension	$11,732,355	$1,065,724	$318,777	$51,477	$17,608	$13,185,941
Health	1,976,536	175,204	53,860	8,646	2,921	2,217,167
Combined	$13,708,891	$1,240,928	$372,637	$60,123	$20,529	$15,403,108

We noted earlier that any difference in the future Tier 1 employer Normal Cost rate that results from the Transfer of Tier 2 members to Tier 1 would be reflected in the next valuation as of June 30, 2016 and is not included herein. In addition, it is our understanding that the lump sum amounts to make the Retirement Fund whole after the transfer will be settled as part of the true-up process for the 2015/2016 prepaid contributions. Therefore, there would not be an increase in the UAAL contribution rates due to the transfer. The Tier 1 Normal Cost and UAAL rates calculated in our June 30, 2014 and June 30, 2015 valuations are reproduced in Exhibits C1-A and C1-B in this report, respectively.

➤ Adoption of New Tier 3 Benefits

As noted earlier, we have calculated the Normal Cost contribution rates under the new Tier 3 plan of benefits for only the Tier 2 members included in this study. The employer and employee Normal Cost rates for the Pension and Health Plans under the new tier are shown in Exhibits C2-A and C2-B later in this Section. There is no UAAL amount for the new Tier 3, however, the employer would have to continue to contribute the same UAAL rates that were determined in the June 30, 2014 and June 30, 2015 valuations (for fiscal years 2015/2016 and 2016/2017, respectively) on the payroll of the Tier 3 members. Therefore, we have maintained the UAAL contribution rates from those valuations for display in Exhibits C2-A and C2-B.

As shown in Exhibits C2-A and C2-B, the employer Normal Cost rate for the Pension Plan is lower for Tier 3 than the current Tier 1. This is mainly due to the lower level of benefits under the new Tier 3 and the reduction in the Tier 3 service retirement rates. In addition, members are contributing a slightly larger portion of the total Normal Cost under Tier 3.
On the other hand, the employer Normal Cost rate for the Health Plan is higher for Tier 3 than the current Tier 1, in spite of there being no change in the Health Plan provisions for Tier 3 members (in comparison to Tier 1) and there being a reduction in the retirement rates to anticipate later retirement for Tier 3. The main reason for this is that the average entry age for the hypothetical Tier 3 members included in this study is higher than the average entry age of the Tier 1 members included in the June 30, 2015 valuation.

- **Change in Eligibility Requirements for Retiree Health Plan for Part-Time Employees**

We have determined the increase in the Normal Cost and UAAL contribution rates associated with the change in the eligibility requirements for the Retiree Health Plan for part-time employees discussed herein, along with the change in the UAAL amount. These results include the costs for the 88 retirees mentioned earlier, and for future retirees from the current active and inactive vested members included in the June 30, 2015 valuation.

The additional Actuarial Accrued Liability (AAL) associated with the 88 retirees was about $5.0 million. In relation to the entire retiree population, these 88 retirees had lower than average service. Since health subsidy levels are directly related to service levels, the lower service translates to a lower health subsidy, and a lower liability, on average, when compared to the entire retiree population. For the active and inactive vested members, we calculated the liability impact of allowing future retirees with eligibility service greater than or equal to 10 years but with benefit service less than 10 years at retirement to receive a retiree health subsidy. The increase in AAL for this provision was about $12.5 million. The combined increase in AAL for actives, inactives, and the 88 retirees was about $17.5 million. This amount is shown in the footnote to Exhibit C3-B later in this Section.

The $17.5 million increase in the UAAL translates to a 0.07% of pay increase in the combined UAAL contribution rate (payable at the beginning of the year) for all members of LACERS, based on the June 30, 2015 valuation results. This UAAL rate increase is based on a 15-year amortization period for the additional UAAL, which is the period used by LACERS for plan changes.

In addition to the increase in the UAAL contribution rate, there will be an increase in the employer Normal Cost rate for the change in the eligibility requirements, since this will have an ongoing effect for all active members, including, theoretically, new hires in Tier 3. However, based on the actual demographics of the Tier 1 members included in the June 30, 2015 valuation and the hypothetical demographics of the Tier 3 members included in this study, there is an increase in the employer Normal Cost of only 0.09% of payroll (payable at the beginning of the year) for the Tier 1 members.

The Tier 1 and Tier 3 employer contribution rates after the change in the eligibility requirements are shown in Exhibit C3-B. Based on previous discussions with LACERS, we have not made any changes to the Tier 1 employer rates that are payable during fiscal year 2015/2016 from those developed in the June 30, 2015 valuation, to account for the change in the eligibility requirements for the Retiree Health Plan for part-time employees. We understand that any changes in employer rates for the change in eligibility requirements will first be reflected in the 2016/2017 fiscal year.

As mentioned earlier, we did not reflect the liability impact for any current or future retirees whose benefit service is already greater than 10 years, consistent with the Ordinance that their subsidy will continue to be based on their benefit service. Additionally, we have not calculated any liability for potential retroactive payments, consistent with the Ordinance to provide this enhanced benefit on a prospective basis only.

B. Demographics as of June 30, 2015

	Tier 2 Members Hired During the Last Two Years
Active members in valuation[1]:	
Average entry age	34.8
Projected average compensation – base salary only[2]	$65,616
Approximate number of new employees hired in each year	692

[1] *The data used for this study is based on the June 30, 2015 valuation data for Tier 2 members hired in the two years prior to the June 30, 2015 valuation date. As of that date, there were 1,980 active members in Tier 2. Of those, 596 members had a "date of employment" prior to July 1, 2013. The remaining 1,384 records were used in this study. For informational purposes, the projected average compensation for the 596 active Tier 2 members that were not included in this study was $47,163.*

[2] *We understand that the "current annual pensionable salary" provided by LACERS for the Tier 2 members included in this study reflect base salary only. Pursuant to Ordinance No. 184134, Final Average Monthly Compensation for Tier 3 members includes "base salary…and any items of compensation that are designated as pension based." Since Segal Consulting does not currently have sufficient information to determine the effect of the pension based compensation items referred to in the Ordinance on projected average compensation, the results provided herein are based on base salary only. However, to the extent that the pension based compensation items would increase the projected average compensation in the calculation of the retirement benefits, there would be an offsetting increase in the total payroll over which the costs are those retirement benefits are spread.*

C1-A. Tier 1 Contribution Rates From the June 30, 2014 Valuation (% of payroll)
(Based on Demographics of Tier 1 Members Only)

Rates Payable During Fiscal Year 2015/2016

Tier 1	Employer Rate			Employee Rate		
	(Beginning of Year)	(July 15)	(End of Pay Periods)	(Beginning of Year)[1]	(July 15)[1]	(End of Pay Periods)
Normal Cost						
Pension Plan	6.69%	6.71%	6.94%	10.44%	10.47%	10.83%
Health Plan	3.45%	3.46%	3.58%	0.00%	0.00%	0.00%
Total	10.14%	10.17%	10.52%	10.44%	10.47%	10.83%
UAAL[2]						
Pension Plan	16.39%	16.44%	16.99%			
Health Plan	2.13%	2.14%	2.21%			
Total	18.52%	18.58%	19.20%			
Total						
Pension Plan	23.08%	23.15%	23.93%			
Health Plan	5.58%	5.60%	5.79%			
Total	28.66%	28.75%	29.72%			

(1) *For informational purposes only.*

(2) *After reflecting the five-year phase-in of the impact of the new actuarial assumptions adopted from the 2011 experience study.*

Note: The contribution rates shown above were the rates developed in the June 30, 2014 valuation for Tier 1. These rates do not include any costs associated with the transfer of Tier 2 members to Tier 1 after the June 30, 2014 valuation date or the change in the eligibility requirements for the Retiree Health Plan for part-time employees.

C1-B. Tier 1 Contribution Rates From the June 30, 2015 Valuation (% of payroll)
(Based on Demographics of Tier 1 Members Only)

Rates Payable During Fiscal Year 2016/2017

Tier 1	Employer Rate			Employee Rate		
	(Beginning of Year)	(July 15)	(End of Pay Periods)	(Beginning of Year)[1]	(July 15)[1]	(End of Pay Periods)
Normal Cost						
Pension Plan	6.75%	6.77%	7.00%	10.54%	10.57%	10.94%
Health Plan	3.31%	3.33%	3.44%	0.00%	0.00%	0.00%
Total	10.06%	10.10%	10.44%	10.54%	10.57%	10.94%
UAAL[2]						
Pension Plan	16.39%	16.44%	16.99%			
Health Plan	1.46%	1.46%	1.51%			
Total	17.85%	17.90%	18.50%			
Total						
Pension Plan	23.14%	23.21%	23.99%			
Health Plan	4.77%	4.79%	4.95%			
Total	27.91%	28.00%	28.94%			

(1) *For informational purposes only.*

(2) *These UAAL rates do not reflect any adjustments from the five-year phase-in of the impact of the new actuarial assumptions adopted from the 2011 experience study, as those adjustments no longer apply. Note that the UAAL rates for the Pension Plan are coincidentally the same as the Pension Plan UAAL rates from the June 30, 2014 valuation, after those rates were adjusted to reflect the five-year phase-in.*

Note: The contribution rates shown above were the rates developed in the June 30, 2015 valuation for Tier 1. These rates do not include any costs associated with the transfer of Tier 2 members to Tier 1 after the June 30, 2015 valuation date or the change in the eligibility requirements for the Retiree Health Plan for part-time employees.

C2-A. Fiscal Year 2015/2016 Tier 3 Contribution Rates (% of payroll)
(Based on Demographics of Tier 2 Employees Hired During the Last Two Years with an Average Entry Age of About 35)

Rates Payable During Fiscal Year 2015/2016[1]

Tier 3	Employer Rate			Employee Rate		
	(Beginning of Year)	(July 15)	(End of Pay Periods)	(Beginning of Year)[2]	(July 15)[2]	(End of Pay Periods)
Normal Cost						
Pension Plan	3.50%	3.51%	3.62%	10.60%	10.63%	11.00%
Health Plan	3.47%	3.48%	3.60%	0.00%	0.00%	0.00%
Total	6.97%	6.99%	7.22%	10.60%	10.63%	11.00%
UAAL[3]						
Pension Plan	16.39%	16.44%	16.99%			
Health Plan	2.13%	2.14%	2.21%			
Total	18.52%	18.58%	19.20%			
Total						
Pension Plan	19.89%	19.95%	20.61%			
Health Plan	5.60%	5.62%	5.81%			
Total	25.49%	25.57%	26.42%			

(1) *Starting February 21, 2016.*

(2) *For informational purposes only.*

(3) *These are the same UAAL rates determined in the June 30, 2014 valuation.*

C2-B. Fiscal Year 2016/2017 Tier 3 Contribution Rates (% of payroll)
(Based on Demographics of Tier 2 Employees Hired During the Last Two Years with an Average Entry Age of About 35)

Rates Payable During Fiscal Year 2016/2017

Tier 3	Employer Rate			Employee Rate		
	(Beginning of Year)	(July 15)	(End of Pay Periods)	(Beginning of Year)[1]	(July 15)[1]	(End of Pay Periods)
Normal Cost						
Pension Plan	3.50%	3.51%	3.62%	10.60%	10.63%	11.00%
Health Plan	3.47%	3.48%	3.60%	0.00%	0.00%	0.00%
Total	6.97%	6.99%	7.22%	10.60%	10.63%	11.00%
UAAL[2]						
Pension Plan	16.39%	16.44%	16.99%			
Health Plan	1.46%	1.46%	1.51%			
Total	17.85%	17.90%	18.50%			
Total						
Pension Plan	19.89%	19.95%	20.61%			
Health Plan	4.93%	4.94%	5.11%			
Total	24.82%	24.89%	25.72%			

(1) *For informational purposes only.*

(2) *These are the same UAAL rates determined in the June 30, 2015 valuation.*

C3-A. Fiscal Year 2015/2016 Contribution Rates After Adopting New Tier 3 (% of payroll)

Rates Payable During Fiscal Year 2015/2016

Tier 1	Employer Rate			Employee Rate		
	(Beginning of Year)	(July 15)	(End of Pay Periods)	(Beginning of Year)[1]	(July 15)[1]	(End of Pay Periods)
Normal Cost						
Pension Plan	6.69%	6.71%	6.94%	10.44%	10.47%	10.83%
Health Plan	3.45%	3.46%	3.58%	0.00%	0.00%	0.00%
Total	10.14%	10.17%	10.52%	10.44%	10.47%	10.83%
UAAL						
Pension Plan	16.39%	16.44%	16.99%			
Health Plan	2.13%	2.14%	2.21%			
Total	18.52%	18.58%	19.20%			
Total						
Pension Plan	23.08%	23.15%	23.93%			
Health Plan	5.58%	5.60%	5.79%			
Total	28.66%	28.75%	29.72%			

Rates Payable During Fiscal Year 2015/2016[2]

Tier 3	Employer Rate			Employee Rate		
	(Beginning of Year)	(July 15)	(End of Pay Periods)	(Beginning of Year)[1]	(July 15)[1]	(End of Pay Periods)
Normal Cost						
Pension Plan	3.50%	3.51%	3.62%	10.60%	10.63%	11.00%
Health Plan	3.47%	3.48%	3.60%	0.00%	0.00%	0.00%
Total	6.97%	6.99%	7.22%	10.60%	10.63%	11.00%
UAAL						
Pension Plan	16.39%	16.44%	16.99%			
Health Plan	2.13%	2.14%	2.21%			
Total	18.52%	18.58%	19.20%			
Total						
Pension Plan	19.89%	19.95%	20.61%			
Health Plan	5.60%	5.62%	5.81%			
Total	25.49%	25.57%	26.42%			

(1) *For informational purposes only.*

(2) *Starting February 21, 2016.*

C3-B. Fiscal Year 2016/2017 Contribution Rates After Adopting New Tier 3 and After Reflecting Change in Eligibility Requirements for the Retiree Health Plan for Part-Time Employees (% of payroll)

Rates Payable During Fiscal Year 2016/2017

Tier 1	Employer Rate			Employee Rate		
	(Beginning of Year)	(July 15)	(End of Pay Periods)	(Beginning of Year)[1]	(July 15)[1]	(End of Pay Periods)
Normal Cost						
Pension Plan	6.75%	6.77%	7.00%	10.54%	10.57%	10.94%
Health Plan	3.40%	3.42%	3.54%	0.00%	0.00%	0.00%
Total	10.15%	10.19%	10.54%	10.54%	10.57%	10.94%
UAAL[2]						
Pension Plan	16.39%	16.44%	16.99%			
Health Plan	1.53%	1.53%	1.58%			
Total	17.92%	17.97%	18.57%			
Total						
Pension Plan	23.14%	23.21%	23.99%			
Health Plan	4.93%	4.95%	5.12%			
Total	28.07%	28.16%	29.11%			

Rates Payable During Fiscal Year 2016/2017

Tier 3	Employer Rate			Employee Rate		
	(Beginning of Year)	(July 15)	(End of Pay Periods)	(Beginning of Year)[1]	(July 15)[1]	(End of Pay Periods)
Normal Cost						
Pension Plan	3.50%	3.51%	3.62%	10.60%	10.63%	11.00%
Health Plan	3.47%	3.48%	3.60%	0.00%	0.00%	0.00%
Total	6.97%	6.99%	7.22%	10.60%	10.63%	11.00%
UAAL[2]						
Pension Plan	16.39%	16.44%	16.99%			
Health Plan	1.53%	1.53%	1.58%			
Total	17.92%	17.97%	18.57%			
Total						
Pension Plan	19.89%	19.95%	20.61%			
Health Plan	5.00%	5.01%	5.18%			
Total	24.89%	24.96%	25.79%			

(1) *For informational purposes only.*

(2) *The increase in the UAAL amount due to the change in the eligibility requirements for the Retiree Health Plan for part-time employees is $17,466,894, measured as of June 30, 2015.*

EXHIBIT I

Actuarial Assumptions for Current Tier 1 and New Tier 3

Actuarial Assumptions:	The service retirement assumptions that are used in determining results under the current Tier 1 and the new Tier 3 are shown on the next page. All of the other actuarial assumptions are the same as those adopted by the Board for use in the June 30, 2015 actuarial valuations. Note that the Consumer Price Index (CPI) assumption for new Tier 3 members is assumed to follow the assumption used for prior Tier 2 members (i.e., benefit increases due to CPI are subject to 2.00% maximum), since the new Tier 3 cost of living provision is similar to the former Tier 2 provision (ignoring the Tier 2 provision that allowed for the purchase of additional COLA not to exceed 1.00%).

Retirement Rates:

	Rate (%)			
	Current Tier 1		New Tier 3	
Age	Non-55/30	55/30	Non-55/30	55/30
50	6.0	0.0	6.0	0.0
51	3.0	0.0	3.0	0.0
52	3.0	0.0	3.0	0.0
53	3.0	0.0	3.0	0.0
54	16.0	0.0	15.0	0.0
55	6.0	20.0	0.0(1)	19.0
56	6.0	14.0	0.0(1)	13.0
57	6.0	14.0	0.0(1)	13.0
58	6.0	14.0	0.0(1)	13.0
59	6.0	14.0	0.0(1)	13.0
60	6.0	14.0	5.0	13.0
61	6.0	14.0	5.0	13.0
62	7.0	15.0	6.0	14.0
63	7.0	15.0	6.0	14.0
64	7.0	16.0	6.0	15.0
65	12.0	17.0	11.0	16.0
66	12.0	17.0	11.0	16.0
67	12.0	17.0	11.0	16.0
68	12.0	17.0	11.0	16.0
69	12.0	17.0	11.0	16.0
70	100.0	100.0	100.0	100.0

(1) *Not eligible to retire under the provisions of the Tier 3 plan.*

EXHIBIT II

Plan Summary for Current Tier 1 and New Tier 3

Plan Provisions: In the following table, we have provided a high-level comparison of the pertinent Pension Plan benefits from the current Tier 1 and the new Tier 3. Health Plan benefits remain unchanged under the new Tier 3 and are, therefore, not detailed below.

Please note that unless included in the table, all the other plan provisions are assumed to be the same as those used in the June 30, 2015 valuation.

Plan Design	Current Tier 1	New Tier 3
Retirement Formula	Final Compensation * Service Credit * Retirement Factor	
Normal Retirement Eligibility – Part 1 (w/ less than 30 years of service)	Age 60 with 10 years of continuous service; or Age 70	Age 60 with 10 years of service, including 5 years of continuous service
Normal Retirement Factor – Part 1	2.16% per year of service	1.50% per year of service at age 60
Normal Retirement Eligibility – Part 2 (w/ 30 or more years of service)	Age 55 with 30 years of service	Age 60 with 30 years of service, including 5 years of continuous service
Normal Retirement Factor – Part 2	2.16% per year of service	2.00% per year of service at age 60
Early Retirement Eligibility	Age 55 with 10 years of continuous service; or Any age with 30 years of service	Prior to age 60 with 30 years of service, including 5 years of continuous service
Early Retirement Reduction Factor	3% per year of service before age 55; and 1.5% per year of service from ages 55-59	3% per year of service before age 54; 10.5% per year of service at age 54; and unreduced from ages 55-59

Plan Design	Current Tier 1	New Tier 3
Early Retirement Factors	Retirement Factors (with Early Retirement Reduction Factor applied): Age 45: 1.35% Age 53: 1.87% Age 46: 1.41% Age 54: 1.93% Age 47: 1.48% Age 55: 2.00% Age 48: 1.54% Age 56: 2.03% Age 49: 1.61% Age 57: 2.06% Age 50: 1.67% Age 58: 2.10% Age 51: 1.74% Age 59: 2.13% Age 52: 1.80% Age 60: 2.16%	Retirement Factors (with Early Retirement Reduction Factor applied): Age 45: 1.25% Age 53: 1.73% Age 46: 1.31% Age 54: 1.79% Age 47: 1.37% Age 55: 2.00% Age 48: 1.43% Age 56: 2.00% Age 49: 1.49% Age 57: 2.00% Age 50: 1.55% Age 58: 2.00% Age 51: 1.61% Age 59: 2.00% Age 52: 1.67% Age 60: 2.00%
Enhanced Retirement Eligibility – Part 1 (w/ less than 30 years of service)	See Normal Retirement Eligibility – Part 1	Age 63 with 10 (but not greater than 30) years of service, including 5 years of continuous service
Enhanced Retirement Factor – Part 1	See Normal Retirement Factor – Part 1	2.00% per year of service at age 63
Enhanced Retirement Eligibility – Part 2 (w/ 30 or more years of service)	See Normal Retirement Eligibility – Part 2	Age 63 with 30 years of service, including 5 years of continuous service
Enhanced Retirement Factor – Part 2	See Normal Retirement Factor – Part 2	2.10% per year of service at age 63
Final Compensation	Average of highest 12 months; includes base salary plus regularly assigned bonuses or premium pay(1)	Average of highest 36 months; includes base salary and any items of compensation that are designated as pension based(1)
Retirement Allowance (Maximum)	100% of Final Compensation	80% of Final Compensation(2)
Deferred Vested Retirement Eligibility – Part 1	Age 60 with 5 years of continuous service and 10 years have elapsed from first date of membership; or Age 55 with 30 years of service; or Age 70 with 5 years of continuous service; or Been part-time, age 60 and 10 years have elapsed from first date of membership	Age 60 with 5 years of continuous service and 10 years have elapsed from first date of membership; or Age 70 with 5 years of service

(1) It is our understanding that the IRC Section 401(a)(17) compensation limit would apply to all new hires.

(2) Except when benefit is based solely on the annuity component funded by the member's contributions.

Plan Design	Current Tier 1	New Tier 3
Deferred Vested Retirement Benefit – Part 1	Same as for Normal Retirement (or refund of contributions, if greater)	Same as for Normal Retirement (based on a Retirement Factor of 1.50%; or refund of contributions, if greater)
Deferred Vested Retirement Eligibility – Part 2	Age 55 with 5 years of continuous service and 10 years have elapsed from first date of membership; or Age 55 with 10 years of continuous service; or Been part-time, age 55 and 10 years have elapsed from first date of membership	Age 60 with 30 years of continuous service and 10 years have elapsed from first date of membership; or Age 63 with 10 years of service, including 5 years of continuous service
Deferred Vested Retirement Benefit – Part 2	Same as for Early Retirement (or refund of contributions, if greater	Same as for Normal Retirement (based on a Retirement Factor of 2.00%; or refund of contributions, if greater)
Deferred Vested Retirement Eligibility – Part 3	N/A	Age 55 (but not yet 60) with 5 years of continuous service and 10 years have elapsed from first date of membership
Deferred Vested Retirement Benefit – Part 3	N/A	Same as for Early Retirement (based on a Retirement Factor of 1.50% instead of 2.00%; or refund of contributions, if greater)
Deferred Vested Retirement Eligibility – Part 4	N/A	Age 63 with 30 years of continuous service and 10 years have elapsed from first date of membership
Deferred Vested Retirement Benefit – Part 4	N/A	Same as for Early Retirement (based on a Retirement Factor of 2.10%; or refund of contributions, if greater)
Disability Retirement Eligibility	5 years of continuous service	5 years of continuous service

Plan Design	Current Tier 1	New Tier 3
Disability Retirement Benefit	Benefit Amount: 1/70 * Final Compensation * Service Credit; or 1/3 * Final Compensation, if greater(3)	Benefit Amount: 1/70 * Final Compensation * Service Credit; or 1/3 * Final Compensation, if greater(3)
Death after Retirement	50% continuance to eligible spouse or domestic partner or modified continuance to eligible spouse, domestic partner or designated beneficiary(4); $2,500 lump sum death benefit; and any unused contributions if member elected cash refund option	50% continuance to eligible spouse or domestic partner or modified continuance to eligible spouse, domestic partner or designated beneficiary(4); $2,500 lump sum death benefit; and any unused contributions if member elected cash refund option
Death before Retirement	Option 1: No eligibility; refund of employee contributions; 50% of monthly salary limited to 12 monthly payments after 6 years of service Option 2: Duty-related death, disability retirement, service retirement, deferred retirement, or future deferred retirement; continuance of service or disability benefit under 100% J&S option to eligible spouse or domestic partner	Option 1: No eligibility; refund of employee contributions; 50% of monthly salary limited to 12 monthly payments after 6 years of service Option 2: Duty-related death, disability retirement, service retirement, deferred retirement, or future deferred retirement; continuance of service or disability benefit under 100% J&S option to eligible spouse or domestic partner

(3) 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.

(4) The retiree may elect at the time of retirement to take a reduced allowance in order to provide for a continuance pursuant to the provisions of either Section 4.1015 for Tier 1 members or Section 4.1080.14 for Tier 3 members.

Plan Design	Current Tier 1	New Tier 3
Employee Contribution Rate	7% (Pension Plan only), effective from July 1, 2011 until June 30, 2026 or until the ERIP Cost Obligation is fully paid, whichever comes first, then 6%. Beginning January 1, 2013, all non-represented members and members in certain bargaining groups are required to pay an additional 4% member contribution rate to defray the cost of providing a Retiree Medical Plan premium subsidy. 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).	7% (Pension Plan only). All members are required to pay an additional 4% member contribution rate to defray the cost of providing a Retiree Medical Plan premium subsidy. 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).
COLA	Based on CPI subject to a maximum of 3% per year	Based on CPI subject to a maximum of 2% per year
COLA Bank	Yes	No
Government Service Buybacks(5)	Cost is based on employee contribution rate; no limit on the number of years of service purchased	Cost is based on employee contribution rate plus the City contribution rate; the limit on the number of years of service purchased is the amount that would not cause the member's service retirement allowance to exceed eighty percent (80%) of final compensation.

(5) *The cost of any Government Service Buybacks has not been included in the costs presented in this report.*