



**BIRTEL**  
ASSOCIATES, LLC

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**City of Los Angeles**

**Proposed Tier of New Benefits for Future Employees  
in the  
Los Angeles City Employees' Retirement System**

**And**

**Effect of Proposed Salary Agreement on Employees  
in the  
Los Angeles City Employees' Retirement System**

**Actuarial Analysis**

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# SECTION 1

## INTRODUCTION

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Bartel Associates has prepared this report to (a) estimate the costs of the proposed Tier 3 for future hires in the Los Angeles City Employees' Retirement System and (b) estimate the effect of proposed changes in salary schedules and (c) estimate the combined impact of both changes on total City payroll, pension and OPEB costs.

### **Part 1: Proposed Tier 3**

Tier 3 cost estimates were prepared by using the group of employees hired from June 30, 2013 through June 30, 2014 as a proxy for expected future hires. We compared the results for this group of employees with results for current plan participants hired in the three years ending June 30, 2014 and found the costs were similar. The study compares the Normal Cost rate for this group of expected hires under the current and proposed benefit formulas. Under the entry age actuarial cost method, the normal cost is designed to remain a level percentage of pay over an employee's career. Thus, if there is no change to a group's demographics, and particularly to the average entry age, the normal cost for the group as a percentage of payroll is expected to remain constant in the future.

Because the group of future employees (Tier 3) has no past service, they have no actuarial accrued liability and no unfunded actuarial accrued liability. This study assumes all actuarial assumptions are met in the future, since the actuarial assumptions are designed to be the actuary's best guess as to future experience. If all assumptions are met, there will never be any unfunded actuarial accrued liability with respect to Tier 3. For this reason, except as noted in Section 4, our study compares only normal cost and not any unfunded actuarial accrued liabilities.

We have also estimated the cost increase associated with employees hired into Tier 2 becoming Tier 1. We've determined the difference in the future Normal Cost rate for the group of Tier 2 employees projected to be hired before December 31, 2015, as well as the cost for the increased benefit earned since their hire dates, and for the City's payment of the difference in the employee contribution rate.

### **Part 2: Proposed Salary Schedule**

The City recently changed from a 5-step salary schedule to an 8-step schedule for most LACERS members. For purposes of this study, it is assumed that all active LACERS members are covered by these schedules. A new salary schedule has been proposed with new lower salaries for future hires, combined with, for all employees, 2 years of 0% pay COLAs and a 2% pay COLA in year 3. The City asked Bartel Associates to project the impact of the change in pay schedules, and also of the accompanying change in total LACERS City pension and OPEB costs.

When estimating future increases in an employee's salary, actuaries do not model an organization's salary program (step increases, COLAs and promotional increases) directly. Instead, they observe the overall pattern of average pay increases relative to increases in CPI that are actually received by employees who have the same number of years of service. This pattern of average increases is used to determine an average salary scale and is used to project future plan costs. For this study we did not attempt to model each participant's future step pay and promotional increases directly, but rather estimated the changes in average pay increases that the actuary would observe when performing the next experience study. These observed changes would be used to produce a new salary scale which would then be used in the actuarial valuations to determine future City contributions.

# SECTION 1

## INTRODUCTION

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Our cost projections assume all future employees will be hired at the same salary schedule step as currently. For example, an employee who would now be hired at step 2 on the current schedule is assumed to be hired at step 2 on the proposed salary schedule, even though the proposed salary for that step will have decreased 5.5%. Hiring new employees at higher steps will significantly reduce the estimated savings. This study did not attempt to quantify any such savings erosion.

The negotiated pay COLAs will affect both current employees and future hires. For purposes of this study, they were assumed to be reflected immediately in the City's pension and OPEB contribution rates as changes in actuarial assumptions. LACERS' actuary may apply different timing to the recognition of this change and that could have a significant effect on the timing of pension and OPEB savings, although the total amount of savings over time would remain the same.

For this portion of the study, we assumed modest growth in the total number of LACERS active members: 1,000 employees over the first 5 years and an additional 2,000 employees over the next 5 years. We also assumed that current and future members would terminate their employment or retire in accordance with the actuarial assumptions, and that those positions would be replaced with new employees covered by Tier 3, as described above, and the proposed salary schedule.

### **Retiree Health and Welfare Benefits for Certain Part Time Employees and Retirees**

The City also proposes to change the eligibility for retiree health and welfare benefits to be the same as for retirement benefits, by including some employees retiring at age 55 with 10 years of service even if that service was part-time. The health and welfare benefits would be pro-rated by hours worked. The City asked us to evaluate the cost of this eligibility change.

We have not been provided with sufficient data regarding active or retired LACERS members and their hours to calculate the actuarial cost of this change. We understand LACERS has identified 89 retirees and beneficiaries who would become eligible for benefits, but that there may be additional retirees who could be added. For our estimates we have assumed 100 retirees and beneficiaries become eligible for these benefits. This is an increase of 0.71% in the number of retirees included in the actuarial valuation as of June 30, 2015, and we have assumed that the number of future retirees will increase in the same proportion. We have also assumed the benefits these retirees receive will be the same, on average, as for the current group of retirees, and that the same will be true for future retirees. This assumption likely overstates the benefits and resulting estimated actuarial accrued liability, as we expect these newly eligible retirees will be less likely, on average, to be 100% vested and their benefits will be pro-rated for less than full time hours. Our estimates are based on the June 30, 2015 actuarial valuation performed by Segal Consulting.

The results of our estimate are as follows, unadjusted for part-time hours or less than 100% vesting:

■ Increase in actuarial accrued liability for 100 new retirees	\$ 8.6 million
■ 0.71% Increase in actuarial accrued liability for active and inactive employees	<u>10.2 million</u>
■ Total increase in actuarial accrued liability at June 30, 2015	\$18.8 million
■ 0.71% Increase in current annual Normal Cost	\$ 0.4 million

# SECTION 1

## INTRODUCTION

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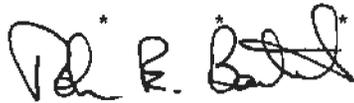
### Other Comments

Except as noted, we have used the same actuarial methods and assumptions in The Segal Company's 6/30/2014 valuation reports.

The purpose of this study is to provide the City with information about the relative costs of proposed future plan designs and salary schedules, as summarized in this report. Actual future costs will differ from those presented in this report due to differences in the demographics, including actual salaries, of actual covered employees. In addition timing of the pension and OPEB contribution impacts shown in this report can also be affected by the timing of their recognition in the annual actuarial valuations performed by LACERS' actuary. LACERS' actuary will determine the actual City pension and OPEB contributions in all future years.

Finally, note that this report considers only funding costs for the pension and OPEB plans and therefore does not address accounting requirements under the GASB Statements 67 and 68. Our report also does not consider any funding or plan design requirements that may be implemented in 2015 or later for California public pension plans.

To the best of our knowledge, this report is complete and accurate and has been conducted using generally accepted actuarial principals and practices. This study was prepared by the undersigned, who are members of the American Academy of Actuaries meeting the Academy Qualification Standards.



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**SECTION 2**  
**COMPARISON OF TIER 1 AND TIER 3**

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**Comparison of Estimated Contribution Rates:  
Current Tier 1 & Proposed Tier 3 Formulas**

	Tier 1	Tier 3
<b>Pension</b>		
<u>Employee Contribution Rates</u>		
• Pension	7.00% <sup>1</sup>	7.00%
• OPEB	<u>4.00%</u>	<u>4.00%</u>
• Total	11.00%	11.00%
• Pay Basis	Base + Included Bonus	Base + Included Bonus
 <u>Cost as % of Base + Included Bonus</u>		
• Total Cost % of Pay	18.85%	13.08%
• Employee Normal Cost % of Pay (excludes OPEB) <sup>2</sup>	<u>-6.75%</u>	<u>-6.75%</u>
• Employer Cost % of Pay	12.10% <sup>1</sup>	6.33%
• Decrease in Employer Cost from Tier 1		-5.77%
 <b>OPEB</b>		
<u>Cost as % of Base + Bonus</u>		
• Total Cost % of Pay	4.08%	3.73%
• Employee Normal Cost % of Pay (paid in pension plan) <sup>2</sup>	<u>-3.86%</u>	<u>-3.86%</u>
• Employer Cost % of Pay	0.22%	-0.13%
• Decrease in Employer Cost from Tier 1		-0.35%
 <b>Total</b>		
• Total Cost % of Pay	22.93%	16.81%
• Employee Normal Cost % of Pay (paid in pension plan) <sup>2</sup>	<u>-10.60%</u>	<u>-10.61%</u>
• Employer Cost % of Pay	12.32%	6.21%
• Decrease in Employer Cost from Tier 1		-6.12%

<sup>1</sup> The employee contribution rate is projected to decrease to 6.00% beginning in 2027. The employer normal cost rate will increase 1% at that time.

<sup>2</sup> The Employee Normal Cost Rates shown have been adjusted to beginning of year rates consistent with the Total Cost Rates.



**SECTION 3**  
**COMPARISON OF TIER 2 AND TIER 3**

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**Comparison of Estimated Contribution Rates:  
Current Tier 2 & Proposed Tier 3 Formulas**

	Tier 2	Tier 3
<b>Pension</b>		
Employee Contribution Rates		
• Pension	8.30%	7.00%
• OPEB	<u>1.70%</u>	<u>4.00%</u>
• Total	10.00%	11.00%
• Pay Basis	Base	Base + Included Bonus
<u>Cost as % of Base + Bonus</u>		
• Total Cost % of Pay	10.87%	13.08%
• Employee Normal Cost % of Pay (excludes OPEB) <sup>3</sup>	<u>-7.84%</u>	<u>-6.75%</u>
• Employer Cost % of Pay	3.03%	6.33%
• Increase in Employer Cost from Tier 2		3.30%
<b>OPEB</b>		
<u>Cost as % of Base + Included Bonus</u>		
• Total Cost % of Pay	2.54%	3.73%
• Employee Normal Cost % of Pay (paid in pension plan) <sup>3</sup>	<u>-1.61%</u>	<u>-3.86%</u>
• Employer Cost % of Pay	0.93%	-0.13%
• Decrease in Employer Cost from Tier 2		-1.06%
<b>Total</b>		
• Total Cost % of Pay	13.41%	16.81%
• Employee Normal Cost % of Pay (paid in pension plan) <sup>3</sup>	<u>-9.45%</u>	<u>-10.61%</u>
• Employer Cost % of Pay	3.96%	6.21%
• Increase in Employer Cost from Tier 2		2.24%

<sup>3</sup> The Employee Normal Cost Rates shown have been adjusted to beginning of year rates consistent with the Total Cost Rates.

**SECTION 4**  
**COMPARISON OF TIER 1 AND TIER 2**

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**Comparison of Estimated Contribution Rates:  
Current Tier 1 & Tier 2 Formulas**

	Tier 1	Tier 2
<b>Pension</b>		
<u>Employee Contribution Rates</u>		
• Pension	7.00% <sup>4</sup>	8.30%
• OPEB	<u>4.00%</u>	<u>1.70%</u>
• Total	11.00%	10.00%
• Pay Basis	Base + Included Bonus	Base
 <u>Cost as % of Base + Included Bonus</u>		
• Total Cost % of Pay	18.85%	10.87%
• Employee Normal Cost % of Pay (excludes OPEB) <sup>5</sup>	<u>-6.75%</u>	<u>-7.84%</u>
• Employer Cost % of Pay	12.10% <sup>4</sup>	3.03%
• Decrease in Employer Cost from Tier 1		-9.07%
 <b>OPEB</b>		
<u>Cost as % of Base + Bonus</u>		
• Total Cost % of Pay	4.08%	2.54%
• Employee Normal Cost % of Pay (paid in pension plan) <sup>2</sup>	<u>-3.86%</u>	<u>-1.61%</u>
• Employer Cost % of Pay	0.22%	0.93%
• Decrease (Increase) in Employer Cost from Tier 1		0.71%
 <b>Total</b>		
• Total Cost % of Pay	22.93%	13.41%
• Employee Normal Cost % of Pay (paid in pension plan) <sup>2</sup>	<u>-10.60%</u>	<u>-9.45%</u>
• Employer Cost % of Pay	12.32%	3.96%
• Decrease in Employer Cost from Tier 1		-8.36%

<sup>4</sup> The employee contribution rate is projected to decrease to 6.00% beginning in 2027. The employer normal cost rate will increase 1% at that time.

<sup>5</sup> The Employee Normal Cost Rates shown have been adjusted to beginning of year rates consistent with the Total Cost Rates.

## SECTION 5

### COST OF MOVING TIER 2 TO TIER 1

#### Comparison of Estimated Contribution Rates: Current Tier 2 Changed to Tier 1

Providing Tier 2 participants with Tier 1 benefits will increase the City's Actuarial Accrued Liability as detailed on the following page. The table below shows the increase in the Normal Cost Rate from Tier 2 to Tier 1.

	Tier 2	As Tier 1
<b>Pension</b>		
<b>Employee Contribution Rates</b>		
• Pension	8.30%	7.00% <sup>6</sup>
• OPEB	<u>1.70%</u>	<u>4.00%</u>
• Total	10.00%	11.00%
• Pay Basis	Base	Base + Included Bonus
 <u>Cost as % of Base + Included Bonus</u>		
• Total Normal Cost % of Pay	10.87%	18.85%
• Employee Normal Cost % of Pay (excludes OPEB) <sup>7</sup>	<u>-7.84%</u>	<u>-6.75%</u>
• Employer Cost % of Pay	3.03%	12.10% <sup>6</sup>
 <b>OPEB</b>		
<u>Cost as % of Base + Bonus</u>		
• Total Cost % of Pay	2.54%	4.08%
• Employee Normal Cost % of Pay (paid in pension plan) <sup>4</sup>	<u>-1.61%</u>	<u>-3.86%</u>
• Employer Cost % of Pay	0.93%	0.22%
 <b>Total</b>		
<u>Cost as % of Base + Bonus</u>		
• Total Cost % of Pay	13.41%	22.93%
• Employee Normal Cost % of Pay (paid in pension plan) <sup>4</sup>	<u>-9.45%</u>	<u>-10.60%</u>
• Employer Cost % of Pay	3.96%	12.32%
• Increase in Employer Cost from Tier 2		8.36%

**Tier 2 Assumptions:**

- OPEB costs assume all Tier 2 employees elect 4% of pay for health care subsidy increase
- Actuarial valuation reported pay for Tier 2 assumed to be base pay only; 2% increase assumed for Tier 1 "included" bonuses.
- 50 vested terminated Tier 2 employees as of June 30, 2014 excluded

<sup>6</sup> The employee contribution rate is projected to decrease to 6.00% beginning in 2027. The employer normal cost rate will increase 1% at that time.

<sup>7</sup> The Employee Normal Cost Rates shown have been adjusted to beginning of year rates consistent with the Total Cost Rates.

**SECTION 5**  
**COST OF MOVING TIER 2 TO TIER 1**

**Estimation of Increased Actuarial Accrued Liability at December 31, 2015:  
Current Tier 2 Changed to Tier 1**

Providing Tier 2 participants with Tier 1 benefits will increase the City's Actuarial Accrued Liability for benefits earned by Tier 2 participants from their hire date through the date they move to Tier 1. The following table estimates the value of these increased benefits, which we understand LACERS will require to be paid as a one-time payment.

(\$000's)

	<b>Cost for Each Period</b>	<b>With Interest to December 31, 2015<sup>8</sup></b>
<b>Benefits earned FY 2013/14</b>		
Tier 2 Payroll (Base pay only)	\$ 45,746	
Estimated average Tier 2 service during year	0.50 years	
Shortfall in Employer Normal Cost - Pension <sup>9</sup>	\$ 2,116	\$ 2,535
Overpayment of Employer Normal Cost - OPEB	(165)	(198)
Shortfall in Employees Contributions	<u>270</u>	<u>323</u>
Total	2,220	2,660
<b>Benefits earned FY 2014/15</b>		
Tier 2 Payroll (Base pay only)	\$ 116,685	
Estimated average Tier 2 service during year	0.69 years	
Shortfall in Employer Normal Cost - Pension	7,454	8,308
Overpayment of Employer Normal Cost - OPEB	(583)	(649)
Shortfall in Employees Contributions	<u>950</u>	<u>1,059</u>
Total	7,821	8,717
<b>Benefits earned June 30, 2014 to December 31, 2015</b>		
Tier 2 Payroll (Base pay only) at October 17, 2015	\$ 135,827 (2,407 employees)	
Estimated Tier 2 Payroll (Base pay only) at December 31, 2015	152,305 (Estimated 2,699 employees)	
Estimated average Tier 2 service during period	0.43 years	
Shortfall in Employer Normal Cost - Pension	6,118	6,343
Overpayment of Employer Normal Cost - OPEB	(478)	(496)
Shortfall in Employees Contributions	<u>780</u>	<u>808</u>
Total	6,420	6,656
<b>Total Estimated Actuarial Accrued Liability</b>		
Shortfall in Employer Normal Cost - Pension	\$ 15,688	\$ 17,187
Overpayment of Employer Normal Cost - OPEB	(1,226)	(1,343)
Shortfall in Employees Contributions	<u>1,999</u>	<u>2,190</u>
Total	16,461	18,034

<sup>8</sup> Estimated as payable from beginning of each period to 12/31/2015

<sup>9</sup> Difference in Tier 1 and Tier 2 normal cost rates applied to payroll during period

## SECTION 6

### TIER 3 SAVINGS PROJECTION

The following chart estimates the savings from implementing the proposed Tier 3 benefits, as compared to the current Tier 1. Total payroll is assumed to increase 4.0% in all years.

<b>Estimated Savings (\$000's) Tier 3 Compared to Tier 1</b>						
YR	FISCAL YEAR	TOTAL PAYROLL	TIER 3 % OF TOTAL PAYROLL	TIER 3 PAYROLL	TIER 3 SAVINGS	
					ANNUAL	CUMULATIVE
1	2014	\$1,898,587	0%	\$ -	\$ -	\$ -
2	2015	1,974,530	7%	128,876	7,883	7,883
3	2016	2,053,511	12%	240,565	14,716	22,599
4	2017	2,135,652	17%	361,501	22,113	44,712
5	2018	2,221,078	22%	491,852	30,087	74,799
6	2019	2,309,921	27%	630,955	38,596	113,395
7	2020	2,402,318	32%	780,741	47,759	161,154
8	2021	2,498,410	38%	939,561	57,474	218,627
9	2022	2,598,347	42%	1,103,512	67,503	286,130
10	2023	2,702,281	47%	1,273,022	77,872	364,002
11	2024	2,810,372	52%	1,449,166	88,647	452,648
12	2025	2,922,787	56%	1,627,355	99,546	552,195
13	2026	3,039,698	59%	1,808,424	110,623	662,817
14	2027	3,161,286	63%	1,993,565	141,884	804,701
15	2028	3,287,738	66%	2,182,923	155,360	960,061
16	2029	3,419,247	69%	2,375,237	169,047	1,129,109
17	2030	3,556,017	72%	2,573,671	183,170	1,312,279
18	2031	3,698,258	75%	2,781,035	197,928	1,510,207
19	2032	3,846,188	78%	2,994,979	213,155	1,723,362
20	2033	4,000,036	80%	3,214,039	228,746	1,952,107
21	2034	4,160,037	83%	3,440,106	244,835	2,196,942
22	2035	4,326,439	85%	3,669,203	261,140	2,458,082
23	2036	4,499,496	87%	3,900,598	277,608	2,735,691
24	2037	4,679,476	88%	4,139,624	294,620	3,030,311
25	2038	4,866,655	90%	4,387,286	312,246	3,342,557
26	2039	5,061,321	92%	4,640,908	330,297	3,672,854
27	2040	5,263,774	93%	4,899,636	348,711	4,021,565
28	2041	5,474,325	94%	5,161,205	367,327	4,388,892
29	2042	5,693,298	95%	5,423,165	385,971	4,774,862
30	2043	5,921,030	96%	5,690,029	404,964	5,179,826
Current present value of 30-year savings using 7.50% discount rate						1,217,167
Current present value of 30-year savings using 4.00%** discount rate						2,288,305

\* Figures are provided for illustrative purposes only and are based on various assumptions, including annual growth, payroll, and Tier 3 % of payroll. \*\* Approximation of GASB 68 AA Bond rate.



## SECTION 6

### TIER 3 SAVINGS PROJECTION

The following chart estimates the savings or (cost) from implementing the proposed Tier 3 benefits, as compared to the current Tier 2 benefits for new hires. Total payroll is assumed to increase 4.0% in all years.

Estimated Savings/(Cost) (\$000's) Tier 3 Compared to Tier 2						
YR	FISCAL YEAR	TOTAL PAYROLL	TIER 3 % OF TOTAL PAYROLL	TIER 3 PAYROLL	TIER 3 SAVINGS/(COST)	
					ANNUAL	CUMULATIVE
1	2014	\$1,898,587	0%	\$ -	\$ -	\$ -
2	2015	1,974,530	7%	128,876	(2,890)	(2,890)
3	2016	2,053,511	12%	240,565	(5,395)	(8,285)
4	2017	2,135,652	17%	361,501	(8,107)	(16,391)
5	2018	2,221,078	22%	491,852	(11,030)	(27,421)
6	2019	2,309,921	27%	630,955	(14,149)	(41,571)
7	2020	2,402,318	32%	780,741	(17,508)	(59,079)
8	2021	2,498,410	38%	939,561	(21,070)	(80,149)
9	2022	2,598,347	42%	1,103,512	(24,746)	(104,895)
10	2023	2,702,281	47%	1,273,022	(28,548)	(133,443)
11	2024	2,810,372	52%	1,449,166	(32,498)	(165,941)
12	2025	2,922,787	56%	1,627,355	(36,494)	(202,434)
13	2026	3,039,698	59%	1,808,424	(40,554)	(242,988)
14	2027	3,161,286	63%	1,993,565	(44,706)	(287,694)
15	2028	3,287,738	66%	2,182,923	(48,952)	(336,647)
16	2029	3,419,247	69%	2,375,237	(53,265)	(389,912)
17	2030	3,556,017	72%	2,573,671	(57,715)	(447,627)
18	2031	3,698,258	75%	2,781,035	(62,365)	(509,992)
19	2032	3,846,188	78%	2,994,979	(67,163)	(577,155)
20	2033	4,000,036	80%	3,214,039	(72,075)	(649,230)
21	2034	4,160,037	83%	3,440,106	(77,145)	(726,375)
22	2035	4,326,439	85%	3,669,203	(82,282)	(808,657)
23	2036	4,499,496	87%	3,900,598	(87,472)	(896,129)
24	2037	4,679,476	88%	4,139,624	(92,832)	(988,961)
25	2038	4,866,655	90%	4,387,286	(98,386)	(1,087,346)
26	2039	5,061,321	92%	4,640,908	(104,073)	(1,191,419)
27	2040	5,263,774	93%	4,899,636	(109,875)	(1,301,294)
28	2041	5,474,325	94%	5,161,205	(115,741)	(1,417,035)
29	2042	5,693,298	95%	5,423,165	(121,615)	(1,538,650)
30	2043	5,921,030	96%	5,690,029	(127,600)	(1,666,250)
Current present value of 30-year cost using 7.50% discount rate						(401,041)
Current present value of 30-year cost using 4.00%** discount rate						(744,665)

\* Figures are provided for illustrative purposes only and are based on various assumptions, including annual growth, payroll, and Tier 3 % of payroll. \*\* Approximation of GASB 68 AA Bond rate.

## SECTION 7

### TIER 2 SAVINGS PROJECTION

The following chart estimates the future savings from continuing the Tier 2 benefits, as compared to the current Tier 1. Total payroll is assumed to increase 4.0% in all years.

Estimated Savings (\$000's) Tier 2 Compared to Tier 1						
YR	FISCAL YEAR	TOTAL PAYROLL	TIER 2 % OF TOTAL PAYROLL	TIER 2 PAYROLL	TIER 2 SAVINGS	
					ANNUAL	CUMULATIVE
1	2014	\$1,898,587	0%	\$ -	\$ -	\$ -
2	2015	1,974,530	7%	128,876	10,773	10,773
3	2016	2,053,511	12%	240,565	20,110	30,884
4	2017	2,135,652	17%	361,501	30,220	61,104
5	2018	2,221,078	22%	491,852	41,117	102,221
6	2019	2,309,921	27%	630,955	52,745	154,966
7	2020	2,402,318	32%	780,741	65,267	220,232
8	2021	2,498,410	38%	939,561	78,543	298,776
9	2022	2,598,347	42%	1,103,512	92,249	391,025
10	2023	2,702,281	47%	1,273,022	106,419	497,444
11	2024	2,810,372	52%	1,449,166	121,144	618,589
12	2025	2,922,787	56%	1,627,355	152,314	770,902
13	2026	3,039,698	59%	1,808,424	169,261	940,164
14	2027	3,161,286	63%	1,993,565	186,590	1,126,753
15	2028	3,287,738	66%	2,182,923	204,313	1,331,066
16	2029	3,419,247	69%	2,375,237	222,312	1,553,378
17	2030	3,556,017	72%	2,573,671	240,885	1,794,263
18	2031	3,698,258	75%	2,781,035	260,293	2,054,557
19	2032	3,846,188	78%	2,994,979	280,318	2,334,874
20	2033	4,000,036	80%	3,214,039	300,821	2,635,695
21	2034	4,160,037	83%	3,440,106	321,980	2,957,675
22	2035	4,326,439	85%	3,669,203	343,422	3,301,097
23	2036	4,499,496	87%	3,900,598	365,080	3,666,177
24	2037	4,679,476	88%	4,139,624	387,452	4,053,629
25	2038	4,866,655	90%	4,387,286	410,632	4,464,261
26	2039	5,061,321	92%	4,640,908	434,370	4,898,631
27	2040	5,263,774	93%	4,899,636	458,586	5,357,217
28	2041	5,474,325	94%	5,161,205	483,068	5,840,285
29	2042	5,693,298	95%	5,423,165	507,586	6,347,871
30	2043	5,921,030	96%	5,690,029	532,563	6,880,434
Current present value of 30-year savings using 7.50% discount rate						1,632,104
Current present value of 30-year savings using 4.00%** discount rate						3,053,996

\* Figures are provided for illustrative purposes only and are based on various assumptions, including annual growth, payroll, and Tier 2 % of payroll. \*\* Approximation of GASB 68 AA Bond rate.



## SECTION 8

### CURRENT TIER 2 CHANGED TO TIER 1 (COST) PROJECTION

The following chart estimates the (cost) from moving current Tier 2 employees to current Tier 1 benefits. The projected Tier 2 payroll includes Tier 2 new hires from 6/30/2014 through 9/28/2015. The cost shown in year 1 includes the one-time payment to LACERS equal to the actuarial accrued liability at transition plus normal cost for the second half of the year.

<b>Estimated Savings/(Cost) (\$000's)</b>				
YR	FISCAL YEAR	TIER 2 PAYROLL	TIER 2 SAVINGS/(COST)	
			ANNUAL	CUMULATIVE
1	2016	\$ 152,305	\$ (24,400)	\$ (24,400)
2	2017	165,203	(13,810)	(38,210)
3	2018	162,735	(13,604)	(51,814)
4	2019	161,136	(13,470)	(65,284)
5	2020	160,854	(13,447)	(78,731)
6	2021	160,486	(13,416)	(92,147)
7	2022	161,365	(13,489)	(105,636)
8	2023	162,400	(13,576)	(119,212)
9	2024	162,804	(13,610)	(132,822)
10	2025	162,454	(13,580)	(146,403)
11	2026	161,967	(13,540)	(159,942)
12	2027	160,885	(15,058)	(175,001)
13	2028	159,491	(14,928)	(189,928)
14	2029	157,612	(14,752)	(204,680)
15	2030	156,361	(14,635)	(219,315)
16	2031	155,488	(14,553)	(233,868)
17	2032	153,816	(14,397)	(248,264)
18	2033	152,597	(14,282)	(262,547)
19	2034	151,392	(14,170)	(276,716)
20	2035	150,301	(14,068)	(290,784)
21	2036	148,856	(13,932)	(304,716)
22	2037	146,968	(13,756)	(318,472)
23	2038	145,207	(13,591)	(332,063)
24	2039	143,140	(13,397)	(345,460)
25	2040	140,582	(13,158)	(358,618)
26	2041	137,905	(12,907)	(371,525)
27	2042	134,689	(12,606)	(384,132)
28	2043	131,000	(12,261)	(396,393)
29	2044	126,958	(11,883)	(408,275)
30	2045	122,916	(11,504)	(419,780)
Current present value of 30-year cost using 7.50% discount rate				(172,410)
Current present value of 30-year cost using 4.00%** discount rate				(247,636)

\* Figures are provided for illustrative purposes only and are based on various assumptions, including annual growth, payroll, and Tier 3 % of payroll. \*\* Approximation of GASB 68 AA Bond rate.



## SECTION 9

### OUTLINE OF PLAN PROVISIONS

	Current Tier 1		Current Tier 2		Proposed Tier 3		
Normal (Unreduced) Retirement Eligibility	Age 60 / 10 yrs service Age 55 / 10 yrs service Age 70		Age 65 / 10 yrs service Age 70		Age 60 / 10 yrs service Age 63 / 10 yrs service Age 55 / 30 yrs service Age 63 / 30 yrs service		
Early Retirement Eligibility	Age 55 / 10 yrs service		Age 55 / 10 yrs service		30 yrs service		
Benefit formula	2.16%@62		2.0%@65		1.5%/2.0%/2.1%		
Benefit Factor	<u>Ret Age</u>	<u>Factor</u>	<u>Ret Age</u>	<u>Factor</u>	<u>Ret Age</u>	<u>&lt;30 YOS</u>	<u>&gt;30 YOS</u>
	52		52		52		1.67%
	53		53		53		1.73%
	54		54		54		1.79%
	55	1.87%	55	0.77%	55	1.50%	2.00%
	56	1.93%	56	0.84%	56	1.50%	2.00%
	57	2.00%	57	0.92%	57	1.50%	2.00%
	58	2.03%	58	1.01%	58	1.50%	2.00%
	59	2.06%	59	1.11%	59	1.50%	2.00%
	60	2.10%	60	1.22%	60	1.50%	2.00%
	61	2.13%	61	1.34%	61	1.50%	2.00%
	62	2.16%	62	1.48%	62	2.00%	2.00%
	63	2.16%	63	1.63%	63	2.00%	2.10%
	64	2.16%	64	1.81%	64	2.00%	2.10%
65	2.16%	65	2.00%	65	2.00%	2.10%	
66	2.16%	66	2.00%	66	2.00%	2.10%	
67	2.16%	67	2.00%	67	2.00%	2.10%	
Final Average Pay	1 Year Includes some bonuses		3 Year Excludes bonuses		3 Year Includes some bonuses		
Maximum Benefit	100%		75%		80%		
Employee Contributions	7% pension 4% OPEB		8.3% pension 1.7% OPEB Adjusted every 3 years as 75% Normal Cost & 50% of UAAL		7% pension 4% OPEB		
COLA	3% max, COLA bank		2% max, No COLA bank		2% max, No COLA bank		
Survivor Continuance	50% continuance		None, reduced allowance option		50% continuance		
Death Benefit (post-retirement)	\$2,500		\$2,500		\$2,500		

## SECTION 9

### OUTLINE OF PLAN PROVISIONS

	<b>Current Tier 1</b>	<b>Current Tier 2</b>	<b>Proposed Tier 3</b>
Retiree Health Subsidy	Eligibility: Age 55/10 yrs Subsidy: 2-Party Coverage @Kaiser Vesting: 40% with 10 yrs to 100% with 25 yrs	Eligibility: Age 55/10 yrs Subsidy: Single @Kaiser Vesting: 40% with 10 yrs svc to 100% with 30 yrs svc	Eligibility: Age 55/10 yrs Subsidy: 2-Party Coverage @Kaiser Vesting: 40% with 10 yrs to 100% with 25 yrs
Disability Retiree Health Subsidy	Same as retirement subsidy deferred to retirement eligibility	Same as retirement subsidy deferred to retirement eligibility	Same as retirement subsidy deferred to retirement eligibility
Disability	>5yrs - maximum of 1.43% per yr of svc and 33% of final pay <5 yrs - contrib. refund	>10 yrs - 1.11% per yr of svc <10 yrs - same as term	>5yrs - maximum of 1.43% per yr of svc and 33% of final pay <5 yrs - contrib. refund
Termination	<5 yrs - contrib. refund >5yrs - deferred ret benefit	<5 yrs - contrib. refund >5yrs - deferred ret benefit	<5 yrs - contrib. refund >5yrs - deferred ret benefit

## SECTION 10

### ACTUARIAL ASSUMPTIONS FOR TIER 3 COSTS

The same assumptions were used as in Segal's 6/30/14 valuation reports with the exception of the bonus pay assumption. The bonus pay assumption is the same as in Segal's 2012 studies. Key assumptions are summarized below.

Valuation Date	June 30, 2014
Actuarial Funding Method	EAN (Entry Age Normal) with normal cost a level percentage of pay.
Discount Rate	7.50%
Retirement Rates	Based on benefit tier, age and service. Tier 1 rates used for LACERS Tier 1, LACERS Tier 2 rates used for LACERS Tier 2 and proposed Tier 3.
Salary Increases	Aggregate payroll increases - 4.00% Individual - Based on service, 10.50% to 4.40%/year
Included Bonus Pay	2% of base pay
Mortality	<u>Healthy</u> - RP-2000 Combined healthy projected with Scale BB to 2020, set back 1 year for males and no setback for females <u>Disabled</u> - RP-2000 Combined healthy projected with Scale BB to 2020, set forward 7 years for males and 8 years for females
Withdrawal	Based on age and service, 13.25% to 2.25%/year
Disability	Based on age, 0.01% to 0.20%/year
Benefit commencement (vested terminated)	Age 58 for formula benefits, immediate withdrawal for contribution refunds. Employee contribution accounts credited with 3.25% interest 5% of terminated employees have reciprocal employment with 4.4%/year pay increases.
Marriage %	<u>Pension</u> - 76% of males, 50% of females married. Male employees 4 years older, female employees 2 years younger than their spouses. <u>OPEB</u> - 60% of males, 30% of females cover dependents. Male employees 4 years older, female employees 2 years younger than their spouses.
Healthcare Trend (Non Age-related healthcare cost increase)	Medical: 7.00% for 2016, decreasing 0.25%/year to 5% after 8 years Dental: 5% per year
Healthcare Participation at Retirement	Based on service: 65% for 10-14 years 80% for 15-19 years 90% for 20-24 years 95% for 25+ years
Premiums and Claims	Based on LACERS healthcare premiums and claims. Changes that would occur if disabled employees became covered were not taken into account.
Subsidy Increase	LACERS Tier 1 assumes all will pay 4% contribution for subsidy increase.
ACA Excise Tax	Not valued (same as LACERS valuation)
Implied Subsidy	Does not exist since premiums for retirees are based only on LACERS retiree experience.



## SECTION 11 FUTURE HIRE DATA

This study uses data for employees hired June 30 2013 to June 30, 2014. A summary of the new hire participant data follows:

Distribution of Assumed Future Hires by Entry Age and Salary										
	Under \$25,000	\$25,000 to \$50,000	\$50,000 to \$75,000	\$75,000 to \$100,000	\$100,000 to \$125,000	\$125,000 to \$150,000	\$150,000 to \$175,000	\$175,000 to \$200,000	Over \$200,000	Total
Under 20	0	7	0	0	0	0	0	0	0	7
20 - 24	0	98	32	0	0	0	0	0	0	130
25 - 29	0	105	78	12	1	1	0	0	0	197
30 - 34	0	49	64	17	7	3	0	0	0	140
35 - 39	0	25	30	13	3	1	0	0	0	72
40 - 44	0	18	30	13	9	5	1	0	0	76
45 - 49	0	15	11	7	1	2	1	1	3	41
50 - 54	0	5	14	8	2	4	1	0	1	35
55 - 59	0	12	11	6	0	3	1	2	0	35
60 - 64	0	6	4	1	0	1	1	1	0	14
Over 65	0	3	3	0	1	0	0	0	1	8
<b>Total</b>	<b>0</b>	<b>343</b>	<b>277</b>	<b>77</b>	<b>24</b>	<b>20</b>	<b>5</b>	<b>4</b>	<b>5</b>	<b>755</b>

Results in this report were compared to results using data for participants hired during the three years ending June 30, 2014 which is as follows:

Distribution of Participants Hired 6/30/11 to 6/30/14 by Entry Age and Salary										
	Under \$25,000	\$25,000 to \$50,000	\$50,000 to \$75,000	\$75,000 to \$100,000	\$100,000 to \$125,000	\$125,000 to \$150,000	\$150,000 to \$175,000	\$175,000 to \$200,000	Over \$200,000	Total
Under 20	0	7	0	0	0	0	0	0	0	7
20 - 24	0	172	66	8	0	0	0	0	0	246
25 - 29	0	180	159	40	4	1	0	0	0	384
30 - 34	0	83	117	41	9	4	0	0	0	254
35 - 39	0	51	52	27	7	3	0	1	0	141
40 - 44	0	37	56	30	14	7	3	1	1	149
45 - 49	0	40	32	25	3	3	1	1	2	107
50 - 54	0	24	24	17	4	4	3	3	2	81
55 - 59	0	26	16	18	1	5	3	2	2	73
60 - 64	0	16	7	3	1	1	1	1	0	30
Over 65	0	10	3	0	1	0	1	0	1	16
<b>Total</b>	<b>0</b>	<b>646</b>	<b>532</b>	<b>209</b>	<b>44</b>	<b>28</b>	<b>12</b>	<b>9</b>	<b>8</b>	<b>1,488</b>



## SECTION 12

### EFFECT OF CHANGE IN SALARY SCHEDULE

#### Total Change in Salary Schedule

The following chart estimates the savings from implementing the proposed Salary Schedule Agreement, including the negotiated pay COLA change for all LACERS employees, as compared to the current 8-Step Plan for all employees. Total payroll is assumed to increase 4.0% per year if the number of employees remains constant. 1,000 new employees are assumed added to payroll over the first 5 years, and 2,000 more added over the next 5 years.

<b>Estimated Savings (\$000's)</b>					
YR	FISCAL YEAR	ESTIMATED TOTAL PAYROLL		ESTIMATED SAVINGS	
		CURRENT	PROPOSED	ANNUAL	CUMULATIVE
1	2015	1,898,000	1,898,000	-	-
2	2016	1,976,000	1,909,000	67,000	67,000
3	2017	2,057,000	1,921,000	136,000	203,000
4	2018	2,148,000	1,974,000	174,000	377,000
5	2019	2,240,000	2,051,000	189,000	566,000
6	2020	2,330,000	2,126,000	204,000	770,000
7	2021	2,426,000	2,203,000	223,000	993,000
8	2022	2,543,000	2,302,000	241,000	1,234,000
9	2023	2,675,000	2,415,000	260,000	1,494,000
10	2024	2,819,000	2,541,000	278,000	1,772,000
11	2025	2,972,000	2,676,000	296,000	2,068,000
12	2026	3,097,000	2,789,000	308,000	2,376,000
13	2027	3,227,000	2,907,000	320,000	2,696,000
14	2028	3,359,000	3,028,000	331,000	3,027,000
15	2029	3,495,000	3,152,000	343,000	3,370,000
16	2030	3,629,000	3,274,000	355,000	3,725,000
17	2031	3,769,000	3,400,000	369,000	4,094,000
18	2032	3,902,000	3,520,000	382,000	4,476,000
19	2033	4,051,000	3,654,000	397,000	4,873,000
20	2034	4,198,000	3,784,000	414,000	5,287,000
21	2035	4,359,000	3,928,000	431,000	5,718,000
22	2036	4,531,000	4,082,000	449,000	6,167,000
23	2037	4,704,000	4,238,000	466,000	6,633,000
24	2038	4,888,000	4,403,000	485,000	7,118,000
25	2039	5,079,000	4,573,000	506,000	7,624,000
26	2040	5,272,000	4,744,000	528,000	8,152,000
27	2041	5,492,000	4,942,000	550,000	8,702,000
28	2042	5,722,000	5,150,000	572,000	9,274,000
29	2043	5,950,000	5,356,000	594,000	9,868,000
30	2044	6,192,000	5,575,000	617,000	10,485,000
Current present value of 30-year savings using 7.50% discount rate					3,180,123
Current present value of 30-year savings using 4.00%** discount rate					5,269,189

\* Figures are provided for illustrative purposes only and are based on various assumptions, including annual growth, payroll, and Tier 3 % of payroll. \*\* Approximation of GASB 68 AA Bond rate



## SECTION 12

### EFFECT OF CHANGE IN SALARY SCHEDULE

#### Detail of Change in Salary Schedule

The following chart shows the salary savings from the change in salary steps separately from the change in salary COLAs. Total payroll is assumed to increase 4.0% per year if the number of employees remains constant. 1,000 new employees are assumed added to payroll over the first 5 years, and 2,000 more added over the next 5 years.

Y R	FISCAL YEAR	Estimated Savings (\$000's)					
		ESTIMATED SAVINGS (ANNUAL) FROM:			ESTIMATED SAVINGS (CUMULATIVE)		
		STEP CHANGES	SALARY COLAS	TOTAL	STEP CHANGES	SALARY COLAS	TOTAL
1	2015						
2	2016	6,000	61,000	67,000	6,000	61,000	67,000
3	2017	10,000	126,000	136,000	16,000	187,000	203,000
4	2018	19,000	155,000	174,000	35,000	342,000	377,000
5	2019	28,000	161,000	189,000	63,000	503,000	566,000
6	2020	37,000	167,000	204,000	100,000	670,000	770,000
7	2021	50,000	173,000	223,000	150,000	843,000	993,000
8	2022	60,000	181,000	241,000	210,000	1,024,000	1,234,000
9	2023	70,000	190,000	260,000	280,000	1,214,000	1,494,000
10	2024	78,000	200,000	278,000	358,000	1,414,000	1,772,000
11	2025	85,000	211,000	296,000	443,000	1,625,000	2,068,000
12	2026	89,000	219,000	308,000	532,000	1,844,000	2,376,000
13	2027	92,000	228,000	320,000	624,000	2,072,000	2,696,000
14	2028	94,000	237,000	331,000	718,000	2,309,000	3,027,000
15	2029	96,000	247,000	343,000	814,000	2,556,000	3,370,000
16	2030	98,000	257,000	355,000	912,000	2,813,000	3,725,000
17	2031	102,000	267,000	369,000	1,014,000	3,080,000	4,094,000
18	2032	106,000	276,000	382,000	1,120,000	3,356,000	4,476,000
19	2033	110,000	287,000	397,000	1,230,000	3,643,000	4,873,000
20	2034	117,000	297,000	414,000	1,347,000	3,940,000	5,287,000
21	2035	123,000	308,000	431,000	1,470,000	4,248,000	5,718,000
22	2036	128,000	321,000	449,000	1,598,000	4,569,000	6,167,000
23	2037	134,000	332,000	466,000	1,732,000	4,901,000	6,633,000
24	2038	139,000	346,000	485,000	1,871,000	5,247,000	7,118,000
25	2039	147,000	359,000	506,000	2,018,000	5,606,000	7,624,000
26	2040	155,000	373,000	528,000	2,173,000	5,979,000	8,152,000
27	2041	162,000	388,000	550,000	2,335,000	6,367,000	8,702,000
28	2042	167,000	405,000	572,000	2,502,000	6,772,000	9,274,000
29	2043	173,000	421,000	594,000	2,675,000	7,193,000	9,868,000
30	2044	180,000	437,000	617,000	2,855,000	7,630,000	10,485,000
Current present value of 30-year savings @ 7.50% discount rate				798,029	2,382,094	3,180,123	
Current present value of 30-year savings @ 4.00%** discount rate				1,380,188	3,889,001	5,269,189	

\* Figures are provided for illustrative purposes only and are based on various assumptions, including annual growth, payroll, and Tier 3 % of payroll. \*\* Approximation of GASB 68 AA Bond rate



## SECTION 13

### EFFECT ON PENSION AND OPEB COSTS

The following estimates the pension and OPEB savings or (cost) of the proposed Tier 1/Tier 3 with the Proposed Salary Schedule as compared to the current Tier 1/Tier 2 and 8-Step Salary Program for all LACERS employees. The accompanying pay COLA reduction is assumed reflected immediately as a change in assumptions in the actuarial valuation. 1,000 net new employees are assumed added over the first 5 years, and 2000 more added over the next 5 years. Costs below exclude Unfunded Actuarial Accrued Liability payments which do not impact savings.

<b>Estimated Savings (Cost) (\$000's)</b>					
YR	FISCAL YEAR	ESTIMATED CITY PENSION + OPEB FUTURE SERVICE COST		ESTIMATED SAVINGS (COST)	
		CURRENT	PROPOSED	ANNUAL	CUMULATIVE
1	2015	214,000	183,000	31,000	31,000
2	2016	216,000	179,000	37,000	68,000
3	2017	217,000	175,000	42,000	110,000
4	2018	219,000	174,000	45,000	155,000
5	2019	220,000	175,000	45,000	200,000
6	2020	205,000	163,000	42,000	242,000
7	2021	211,000	169,000	42,000	284,000
8	2022	216,000	177,000	39,000	323,000
9	2023	222,000	184,000	38,000	361,000
10	2024	227,000	191,000	36,000	397,000
11	2025	233,000	198,000	35,000	432,000
12	2026	238,000	204,000	34,000	466,000
13	2027	255,000	237,000	18,000	484,000
14	2028	259,000	245,000	14,000	498,000
15	2029	263,000	251,000	12,000	510,000
16	2030	266,000	314,000	(48,000)	462,000
17	2031	262,000	316,000	(54,000)	408,000
18	2032	267,000	327,000	(60,000)	348,000
19	2033	266,000	333,000	(67,000)	281,000
20	2034	270,000	343,000	(73,000)	208,000
21	2035	273,000	353,000	(80,000)	128,000
22	2036	272,000	359,000	(87,000)	41,000
23	2037	274,000	368,000	(94,000)	(53,000)
24	2038	280,000	381,000	(101,000)	(154,000)
25	2039	277,000	386,000	(109,000)	(263,000)
26	2040	289,000	405,000	(116,000)	(379,000)
27	2041	294,000	419,000	(125,000)	(504,000)
28	2042	295,000	428,000	(133,000)	(637,000)
29	2043	304,000	444,000	(140,000)	(777,000)
30	2044	317,000	466,000	(149,000)	(926,000)
Current present value of 30-year savings using 7.50% discount rate					62,580
Current present value of 30-year savings using 4.00%** discount rate					(171,065)

\* Figures are provided for illustrative purposes only and are based on various assumptions, including annual growth, payroll, and Tier 3 % of payroll. \*\* Approximation of GASB 68 AA Bond rate



## SECTION 14

### COMBINED EFFECT OF CHANGE IN SALARY SCHEDULE & TIER 3

The following estimates the combined payroll, pension and OPEB savings of the proposed Tier 1/Tier 3 and Proposed Salary Schedule as compared to the current Tier 1/Tier 2 and 8-Step Salary Program for all LACERS employees. The accompanying pay COLA reduction is assumed reflected immediately as a change in assumptions in the actuarial valuation. 1,000 net new employees are assumed added over the first 5 years, and 2000 more added over the next 5 years. Costs below exclude Unfunded Actuarial Accrued Liability payments which do not impact savings.

<b>Estimated Savings (\$000's)</b>					
YR	FISCAL YEAR	ESTIMATED CITY PAYROLL, PENSION + OPEB FUTURE SERVICE COST		ESTIMATED SAVINGS	
		CURRENT	PROPOSED	ANNUAL	CUMULATIVE
1	2015	2,112,000	2,081,000	31,000	31,000
2	2016	2,192,000	2,088,000	104,000	135,000
3	2017	2,274,000	2,096,000	178,000	313,000
4	2018	2,367,000	2,148,000	219,000	532,000
5	2019	2,460,000	2,226,000	234,000	766,000
6	2020	2,535,000	2,289,000	246,000	1,012,000
7	2021	2,637,000	2,372,000	265,000	1,277,000
8	2022	2,759,000	2,479,000	280,000	1,557,000
9	2023	2,897,000	2,599,000	298,000	1,855,000
10	2024	3,046,000	2,732,000	314,000	2,169,000
11	2025	3,205,000	2,874,000	331,000	2,500,000
12	2026	3,335,000	2,993,000	342,000	2,842,000
13	2027	3,482,000	3,144,000	338,000	3,180,000
14	2028	3,618,000	3,273,000	345,000	3,525,000
15	2029	3,758,000	3,403,000	355,000	3,880,000
16	2030	3,895,000	3,588,000	307,000	4,187,000
17	2031	4,031,000	3,716,000	315,000	4,502,000
18	2032	4,169,000	3,847,000	322,000	4,824,000
19	2033	4,317,000	3,987,000	330,000	5,154,000
20	2034	4,468,000	4,127,000	341,000	5,495,000
21	2035	4,632,000	4,281,000	351,000	5,846,000
22	2036	4,803,000	4,441,000	362,000	6,208,000
23	2037	4,978,000	4,606,000	372,000	6,580,000
24	2038	5,168,000	4,784,000	384,000	6,964,000
25	2039	5,356,000	4,959,000	397,000	7,361,000
26	2040	5,561,000	5,149,000	412,000	7,773,000
27	2041	5,786,000	5,361,000	425,000	8,198,000
28	2042	6,017,000	5,578,000	439,000	8,637,000
29	2043	6,254,000	5,800,000	454,000	9,091,000
30	2044	6,509,000	6,041,000	468,000	9,559,000
Current present value of 30-year savings using 7.50% discount rate					3,242,703
Current present value of 30-year savings using 4.00%** discount rate					5,098,124

\* Figures are provided for illustrative purposes only and are based on various assumptions, including annual growth, payroll, and Tier 3 % of payroll. \*\* Approximation of GASB 68 AA Bond rate



## SECTION 15

### SALARY SCHEDULES AND ACTUARIAL ASSUMPTIONS

The following describes the current 8-Step and Proposed Agreement salary schedules, as well as the 5-Step Salary Schedule in place at the time of the most recent actuarial experience study, as well as actuarial assumptions used in the modeling. Please note:

- The salary schedules described are assumed to apply for all LACERS employees
- The study assumes all future employees will be hired at the same salary step number as currently. This will mean lower starting salaries for all employees hired immediately after implementation of the proposed salary schedules.
- Projected savings assume the actuary reflects the negotiated salary COLAs immediately in the actuarial assumptions. Other possible timing will significantly impact the timing (but not the total over time) of savings in City pension contributions.

#### Assumptions for Cost Projections Under Proposed Salary Agreement and Tier 3

	6/30/2014 Actuarial Valuation (5-Step)	8-Step (Current)	Proposed Salary Agreement
Salary Schedule	5.5% pay increases after each of the first 4 years of employment, for a total of 5 Steps	5-Step Schedule with additional 2.75% increases after 5 <sup>th</sup> , 6 <sup>th</sup> , and 7 <sup>th</sup> year of employment, for a total of 8 Steps	Two 9-month steps of 2.75% before first step of 8-step schedule for future hires (become new steps 1 and 2), additional 1 earlier 2.75% step for training class estimated as 10% of population. One step of 2.75% added to end of current 8-step schedule.
Salary COLAs	Related to CPI	Related to CPI	0% first 2 years, 2% year 3. Related to CPI thereafter.
Future Hires	N/A	Based on demographics of new hires in previous 5 years.	Based on demographics of new hires in previous 3 years.  Future employees assumed hired into the same step number as currently (so lower starting salaries for all new hires immediately following implementation.)



**SECTION 15**  
**SALARY SCHEDULES AND ACTUARIAL ASSUMPTIONS**

	<b>6/30/2014 Actuarial Valuation (5-Step)</b>	<b>8-Step (Current)</b>	<b>Proposed Salary Agreement</b>
Recognition of Change to New Pay Schedule	N/A	Pay increases recognized as they occur	Impact of negotiated COLAs reflected immediately as change in assumptions.  Note that this has a significant effect on the timing of savings.
Pension and OPEB Benefits	N/A	Tier 1 for current Tier 1  Tier 2 for current Tier 2 plus future hires	Tier 1 for current Tier 1 and Tier 2  Tier 3 for future hires
Population growth	N/A	1,000 employees added over the first 5 years, additional 2,000 added over next 5 years	
Future mortality improvement	N/A	Mortality continues to improve in the future based on Society of Actuaries Scale BB ("generational mortality")	
Unfunded Actuarial Accrued Liability at Date of Change	N/A	Excluded from calculations as it will not be impacted by change.	
ERIP employee contributions	N/A	Assumed to end in 2026	
Other Actuarial Assumptions	N/A	As in 6/30/2014 Actuarial Valuation	
Basis for projections	N/A	June 30, 2014 actuarial valuation performed by The Segal Company, with projected changes in population according to actuarial assumptions. Future hires, future salaries, and future benefits as described in this report.	

**SECTION 15**  
**SALARY SCHEDULES AND ACTUARIAL ASSUMPTIONS**

**Salary Scale assumptions**

	Salary Schedule			
	6/30/2014 Actuarial Valuation (5-Step)	8-Step (Current)	Proposed Agreement	
			Regular	Training
Assumed proportion of new hires	100%	100%	90%	10%
Starting pay as a % of current starting pay	100%	100%	94.7%	92.2%
<b>CPI component of pay increases, by year from Agreement:</b>				
Year 1 and 2	3.25%	3.25%	0%	0%
Year 3	3.25%	3.25%	2.00%	2.00%
Year 4 and later	3.25%	3.25%	3.25%	3.25%
Assumed increase rates below are in addition to CPI increase plus assumed 0.75% annual across-the-board pay increase.				
Years of Service				
0	6.50%	6.50%	4.63%	2.75%
1	6.20%	6.20%	4.50%	4.63%
2	5.10%	5.10%	5.50%	4.50%
3	3.10%	3.10%	5.30%	5.50%
4	2.10%	2.10%	4.10%	5.30%
5	1.10%	2.00%	2.60%	4.10%
6	1.00%	1.75%	2.05%	2.60%
7	0.90%	1.50%	1.88%	2.05%
8	0.70%	0.70%	1.63%	1.88%
9	0.60%	0.60%	1.50%	1.63%
10	0.40%	0.40%	1.10%	1.50%
11	0.40%	0.40%	0.65%	1.10%
12	0.40%	0.40%	0.50%	0.65%
13	0.40%	0.40%	0.40%	0.50%
Over 13 years	0.40%	0.40%	0.40%	0.40%