

Los Angeles City Employees' Retirement System

**Governmental Accounting Standards (GAS) 68
Actuarial Valuation Based on June 30, 2016
Measurement Date for Employer Reporting
as of June 30, 2017**



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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June 30, 2017

*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, 2016 measurement date for employer reporting as of June 30, 2017. 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*



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

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, 2017. 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, 2016. 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, 2016, provided by LACERS;
- The assets of the Plan as of June 30, 2016, provided by LACERS;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board for the June 30, 2016 valuation; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc. adopted by the Board for the June 30, 2016 valuation.

General Observations on GAS 68 Actuarial Valuation

The following points should be considered when reviewing this GAS 68 report:

- The Governmental Accounting Standards Board (GASB) rules only define 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 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 the same as the 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.
- For this report, the reporting dates for the employer are June 30, 2017 and 2016. The NPL was measured as of June 30, 2016 and 2015 and determined based upon the results of the actuarial valuations as of June 30, 2016 and 2015, respectively. Plan

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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, 2016 and 2015 were not adjusted or rolled forward to the June 30, 2017 and 2016 reporting dates, respectively.

Significant Issues in Valuation Year

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

- The NPL increased from \$4.99 billion as of June 30, 2015 to \$5.62 billion as of June 30, 2016 mainly due to the return on the market value of assets of 0.24%¹ during 2015/2016 that was less than the assumption of 7.50% used in the June 30, 2015 valuation (that loss was about \$0.87 billion). Changes in these values during the last two fiscal years ending June 30, 2015 and June 30, 2016 can be found in Exhibit 5.
- The discount rate used to measure the TPL and NPL as of June 30, 2016 and 2015 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, 2015 and June 30, 2016 are allocated based on the actual employer contributions made during 2014/2015 and 2015/2016, 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, 2016. The employer should consult with their auditor to determine the deferred outflow that should be created for these contributions.

¹ The above 0.24% market return was calculated net of investment expenses only. A 0.10% market return would have been calculated net of both investment and administrative expenses.

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Summary of Key Valuation Results

Reporting Date for Employer under GAS 68	6/30/2017⁽¹⁾	6/30/2016⁽²⁾
Measurement Date for Employer under GAS 68	6/30/2016	6/30/2015
Disclosure elements for fiscal year ending June 30:		
1. Service cost ⁽³⁾	\$322,574,274	\$322,380,251
2. Total Pension Liability	17,424,996,329	16,909,996,380
3. Plan Fiduciary Net Position	11,809,329,415	11,920,570,019
4. Net Pension Liability	5,615,666,914	4,989,426,361
5. Pension expense	609,626,067	463,978,261
Schedule of contributions for fiscal year ending June 30:		
6. Actuarially determined contributions	\$440,546,011	\$381,140,923
7. Actual contributions	440,546,011	381,140,923
8. Contribution deficiency/(excess): (6) – (7)	0	0
Demographic data for plan year ending June 30:		
9. Number of retired members and beneficiaries	18,357	17,932
10. Number of vested terminated members ⁽⁴⁾	6,895	6,507
11. Number of active members	24,446	23,895
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, 2016.

⁽²⁾ The reporting date and measurement date for the plan are June 30, 2015.

⁽³⁾ The service cost is always based on the previous year's assumptions, meaning the June 30, 2016 value is based on those assumptions shown as of June 30, 2015, whereas the June 30, 2015 value is based on the June 30, 2014 assumptions (which are the same as the June 30, 2015 assumptions shown above).

⁽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.

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Important Information about Actuarial Valuations

An actuarial valuation is a budgeting tool with respect to the financing of future projected obligations of a pension plan. It is an estimated forecast – 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.

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. Even where they appear precise, outside factors may change how they operate. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included 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 the System. 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 System. The System uses an “actuarial value of assets” that differs from market value to gradually reflect year-to-year changes in the market value of assets in determining contribution requirements.
- **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, termination, 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 actuarial 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.

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- 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 the Plan, it is not a fiduciary in its capacity as actuaries and consultants with respect to the Retirement System.

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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, 2016, pension plan membership consisted of the following:

Retired members or beneficiaries currently receiving benefits	18,357
Vested terminated members entitled to, but not yet receiving benefits ⁽¹⁾	6,895
Active members	<u>24,446</u>
Total	49,698

⁽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 pursuant to Ordinance No. 184134, all Tier 2 employees who became members of the Retirement System between July 1, 2013 and February 21, 2016 were transferred to Tier 1 effective February 21, 2016. Those employed on or after February 21, 2016 are designated as Tier 3 (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 City service, or the age of 55 with 30 or more years of City service. Tier 3 members are eligible to retire for service with a normal retirement benefit at 1.50% of final average monthly compensation per year of service credit once they attain the age of 60 with 10 years of service (but with less than 30 years of service), including 5 years of

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continuous City service, or at 2.00% of final average monthly compensation per year of service credit once they attain the age of 60 with 30 years of service, including 5 years of continuous City service.

Tier 1 and 3 members are eligible to retire for disability once they have 5 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 City service, or with 30 or more years of City service at any age. The Tier 1 early retirement reduction factors, for retirement below age 60, are as follows:

<u>Age</u>	<u>Factor</u>	<u>Age</u>	<u>Factor</u>
45	0.6250	53	0.8650
46	0.6550	54	0.8950
47	0.6850	55	0.9250
48	0.7150	56	0.9400
49	0.7450	57	0.9550
50	0.7750	58	0.9700
51	0.8050	59	0.9850
52	0.8350	60	1.0000

Under the Tier 3 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 3 members prior to reaching age 60 with 30 years of service, including 5 years of continuous City service. The Tier 3 retirement reduction factors at early retirement ages are as follows:

<u>Age</u>	<u>Factor</u>	<u>Age</u>	<u>Factor</u>
45	0.6250	50	0.7750
46	0.6550	51	0.8050
47	0.6850	52	0.8350
48	0.7150	53	0.8650
49	0.7450	54	0.8950
		55-60	1.0000

Tier 3 members are eligible to retire with an enhanced retirement benefit at 2.00% of final average monthly compensation per year of service credit once they attain the age of 63 with 10 years of service (but with less than 30 years of service), including 5 years of continuous City service, or at 2.10% of final average monthly compensation per year of service credit once they attain the age of 63 with 30 years of service, including 5 years of continuous City service.

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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 3, pension benefits are calculated based on the highest average salary earned during a 36-month period (limited to base salary and any items of compensation that are designated as pension based). The IRC Section 401(a)(17) compensation limit applies to all employees who became members in LACERS after June 30, 1996.

For Tier 1 members, the maximum monthly retirement allowance is 100% of the final average monthly compensation. For Tier 3 members, the maximum monthly retirement allowance is 80% of the final average monthly compensation, except when the benefit is based solely on the annuity component funded by the member's contributions.

In lieu of the service retirement allowance under the Tier 1 and Tier 3 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 and Tier 3 members. 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 3.

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 combined employer contribution rate as of June 30, 2016 was 23.47% of compensation.²

All members are required to make contributions to LACERS regardless of the tier in which they are included. Currently, all Tier 1 members contribute at 11.0% or 11.5% of compensation and all Tier 3 members contribute at 11.0% of compensation.

² Based on the June 30, 2014 funding valuation (which established funding requirements for fiscal year 2015/2016), and 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. Appendix A in Section 3 of this report provides details on how this rate was calculated.

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EXHIBIT 2

Net Pension Liability

Reporting Date for Employer under GAS 68	June 30, 2017	June 30, 2016
Measurement Date for Employer under GAS 68	June 30, 2016	June 30, 2015
The components of the Net Pension Liability are as follows:		
Total Pension Liability	\$17,424,996,329	\$16,909,996,380
Plan Fiduciary Net Position	<u>-11,809,329,415</u>	<u>-11,920,570,019</u>
Net Pension Liability	\$5,615,666,914	\$4,989,426,361
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	67.77%	70.49%

The Net Pension Liability was measured as of June 30, 2016 and 2015. The Plan's Fiduciary Net Position (plan assets) was valued as of the measurement date, while the Total Pension Liability was determined based upon the results of the actuarial valuations as of June 30, 2016 and 2015, respectively.

Plan provisions. The plan provisions used in the measurement of the NPL as of June 30, 2016 and 2015 are the same as those used in the LACERS funding valuations as of June 30, 2016 and 2015, respectively.

Actuarial assumptions. The Total Pension Liabilities as of June 30, 2016 and June 30, 2015 were determined by actuarial valuations as of June 30, 2016 and June 30, 2015, respectively. The actuarial assumptions used in both the June 30, 2016 and June 30, 2015 valuations 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, 2016 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, 2016 actuarial valuation

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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 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 (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, 2016 and June 30, 2015. 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, 2016 and June 30, 2015.

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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, 2016, 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:

Employer Category	Net Pension Liability		
	1% Decrease (6.50%)	Current Discount (7.50%)	1% Increase (8.50%)
City	\$6,511,439,795	\$4,620,035,451	\$3,044,793,858
Airports	1,091,371,246	774,356,211	510,332,672
Harbor	<u>311,863,512</u>	<u>221,275,252</u>	<u>145,829,515</u>
Total for all Employer Categories	\$7,914,674,553	\$5,615,666,914	\$3,700,956,045

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EXHIBIT 5

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

Reporting Date for Employer under GAS 68	June 30, 2017	June 30, 2016
Measurement Date for Employer under GAS 68	June 30, 2016	June 30, 2015
Total Pension Liability		
1. Service cost	\$322,574,274	\$322,380,251
2. Interest	1,263,555,893	1,215,151,439 ⁽¹⁾
3. Change of benefit terms	0	0
4. Differences between expected and actual experience	-300,812,751	-135,821,076
5. Changes of assumptions	0	0
6. Benefit payments, including refunds of member contributions	<u>-770,317,467</u>	<u>-740,567,333⁽²⁾</u>
7. Net change in Total Pension Liability	\$514,999,949	\$661,143,281
8. Total Pension Liability – beginning	<u>16,909,996,380</u>	<u>16,248,853,099</u>
9. Total Pension Liability – ending	<u>\$17,424,996,329</u>	<u>\$16,909,996,380</u>
Plan Fiduciary Net Position		
10. Contributions – employer	\$440,546,011	\$381,140,923
11. Contributions – employee	206,377,251	202,462,864
12. Net investment income	29,357,755	306,980,390
13. Benefit payments, including refunds of member contributions	-770,317,467	-740,567,333 ⁽²⁾
14. Administrative expense	-17,204,154	-15,859,888
15. Other	<u>0</u>	<u>-4,666,410⁽³⁾</u>
16. Net change in Plan Fiduciary Net Position	-\$111,240,604	\$129,490,546
17. Plan Fiduciary Net Position – beginning	<u>11,920,570,019</u>	<u>11,791,079,473</u>
18. Plan Fiduciary Net Position – ending	\$11,809,329,415	\$11,920,570,019 ⁽⁴⁾
19. Net Pension Liability – ending: (9) – (18)	<u>\$5,615,666,914</u>	<u>\$4,989,426,361</u>
20. Plan Fiduciary Net Position as a percentage of the Total Pension Liability	67.77%	70.49%
21. Covered-employee payroll ⁽⁵⁾	\$1,876,946,179	\$1,835,637,409
22. Plan Net Pension Liability as percentage of covered-employee payroll	299.19%	271.81%

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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 2 below), since that transfer was made on July 24, 2015.*
- (2) 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.*
- (3) 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.*
- (4) 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 \$5,199,707 as of June 30, 2015.*
- (5) Covered-employee payroll represents the collective total of the pensionable wages of all LACERS membership tiers.*

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EXHIBIT 6

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
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%
2016	440,546,011	440,546,011	0	1,876,946,179	23.47%

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

SECTION 2: GAS 68 Information for the Los Angeles City Employees' Retirement System

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 (individual basis)
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:	<u>June 30, 2016 valuation date</u>
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 3 (actual increases are contingent upon CPI increases with a 3.00% maximum for Tier 1 and a 2.00% maximum for Tier 3)
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, 2016 funding actuarial valuation

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

SECTION 2: GAS 68 Information for the Los Angeles City Employees' Retirement System

EXHIBIT 7

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	<u>15,824,695</u>	<u>4.152%</u>
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	<u>207,157,368</u>	<u>4.152%</u>
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.

SECTION 2: GAS 68 Information for the Los Angeles City Employees' Retirement System

EXHIBIT 7 (continued)

Determination of Proportionate Share

**Actual Employer Contributions by Employer Category
July 1, 2015 to June 30, 2016**

Employer Category	Contributions	Percentage⁽¹⁾
City	\$362,439,265	82.271%
Airports	60,747,823	13.789%
Harbor	<u>17,358,923</u>	<u>3.940%</u>
Total for all Employer Categories	\$440,546,011	100.000%

⁽¹⁾ The unrounded percentages are used in the allocation of the NPL amongst employer categories.

Allocation of June 30, 2016 Net Pension Liability

Employer Category	NPL	Percentage
City	\$4,620,035,451	82.271%
Airports	774,356,211	13.789%
Harbor	<u>221,275,252</u>	<u>3.940%</u>
Total for all Employer Categories	\$5,615,666,914	100.000%

Notes:

1. Based on the July 1, 2015 through June 30, 2016 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.

SECTION 2: GAS 68 Information for the Los Angeles City Employees' Retirement System

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, 2017. The reporting date and measurement date for the plan under GAS 67 are June 30, 2016. Consistent with the provisions of GAS 68, the assets and liabilities measured as of June 30, 2016 are not adjusted or rolled forward to the June 30, 2017 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

SECTION 2: GAS 68 Information for the Los Angeles City Employees' Retirement System

EXHIBIT 8

Pension Expense – Total for all Employer Categories

Reporting Date for Employer under GAS 68	June 30, 2017	June 30, 2016
Measurement Date for Employer under GAS 68	June 30, 2016	June 30, 2015
Components of Pension Expense		
1. Service cost	\$322,574,274	\$322,380,251
2. Interest on the Total Pension Liability	1,263,555,893	1,215,151,439
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	-57,407,014	-25,059,239
6. Expensed portion of current-period changes of assumptions or other inputs	0	0
7. Actual member contributions	-206,377,251	-202,462,864
8. Projected earnings on plan investments	-903,897,010	-890,682,033
9. Expensed portion of current-period differences between actual and projected earnings on plan investments	174,907,851	116,740,329
10. Administrative expense	17,204,154	15,859,888
11. Other	0	4,666,410
12. Recognition of beginning of year deferred outflows of resources as pension expense	256,498,178	139,757,849
13. Recognition of beginning of year deferred inflows of resources as pension expense	-257,433,008	-232,373,769
14. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>0</u>	<u>0</u>
Pension Expense	\$609,626,067	\$463,978,261

SECTION 2: GAS 68 Information for the Los Angeles City Employees' Retirement System

EXHIBIT 8 (continued)

Pension Expense – City

Reporting Date for Employer under GAS 68	June 30, 2017	June 30, 2016
Measurement Date for Employer under GAS 68	June 30, 2016	June 30, 2015
Components of Pension Expense		
1. Service cost	\$265,383,365	\$263,929,054
2. Interest on the Total Pension Liability	1,039,533,346	994,830,699
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	3,711,207	-905,571
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	-47,229,019	-20,515,715
6. Expensed portion of current-period changes of assumptions or other inputs	0	0
7. Actual member contributions	-169,787,531	-165,754,050
8. Projected earnings on plan investments	-743,640,300	-729,191,276
9. Expensed portion of current-period differences between actual and projected earnings on plan investments	143,897,508	95,573,983
10. Administrative expense	14,153,938	12,984,310
11. Other	0	3,820,337
12. Recognition of beginning of year deferred outflows of resources as pension expense	211,022,252	114,418,165
13. Recognition of beginning of year deferred inflows of resources as pension expense	-211,791,340	-190,241,768
14. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>3,460,188</u>	<u>4,365,759</u>
Pension Expense	\$508,713,614	\$383,313,927

SECTION 2: GAS 68 Information for the Los Angeles City Employees' Retirement System

EXHIBIT 8 (continued)

Pension Expense – Airports

Reporting Date for Employer under GAS 68	June 30, 2017	June 30, 2016
Measurement Date for Employer under GAS 68	June 30, 2016	June 30, 2015
Components of Pension Expense		
1. Service cost	\$44,480,450	\$45,066,202
2. Interest on the Total Pension Liability	174,234,400	169,868,533
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	-1,755,743	1,539,009
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	-7,915,975	-3,503,083
6. Expensed portion of current-period changes of assumptions or other inputs	0	0
7. Actual member contributions	-28,457,796	-28,302,703
8. Projected earnings on plan investments	-124,640,274	-124,510,284
9. Expensed portion of current-period differences between actual and projected earnings on plan investments	24,118,414	16,319,372
10. Administrative expense	2,372,317	2,217,087
11. Other	0	652,327
12. Recognition of beginning of year deferred outflows of resources as pension expense	35,369,077	19,537,039
13. Recognition of beginning of year deferred inflows of resources as pension expense	-35,497,983	-32,484,010
14. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>-2,627,144</u>	<u>-4,166,153</u>
Pension Expense	\$79,679,743	\$62,233,336

SECTION 2: GAS 68 Information for the Los Angeles City Employees' Retirement System

EXHIBIT 8 (continued)

Pension Expense – Harbor

Reporting Date for Employer under GAS 68	June 30, 2017	June 30, 2016
Measurement Date for Employer under GAS 68	June 30, 2016	June 30, 2015
Components of Pension Expense		
1. Service cost	\$12,710,459	\$13,384,995
2. Interest on the Total Pension Liability	49,788,147	50,452,207
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	-1,955,464	-633,438
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	-2,262,020	-1,040,441
6. Expensed portion of current-period changes of assumptions or other inputs	0	0
7. Actual member contributions	-8,131,924	-8,406,111
8. Projected earnings on plan investments	-35,616,436	-36,980,473
9. Expensed portion of current-period differences between actual and projected earnings on plan investments	6,891,929	4,846,974
10. Administrative expense	677,899	658,491
11. Other	0	193,746
12. Recognition of beginning of year deferred outflows of resources as pension expense	10,106,849	5,802,645
13. Recognition of beginning of year deferred inflows of resources as pension expense	-10,143,685	-9,647,991
14. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>-833,044</u>	<u>-199,606</u>
Pension Expense	\$21,232,710	\$18,430,998

SECTION 2: GAS 68 Information for the Los Angeles City Employees' Retirement System

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, 2017	June 30, 2016
Measurement Date for Employer under GAS 68	June 30, 2016	June 30, 2015
Deferred Outflows of Resources		
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$32,437,213	\$22,606,466
2. Changes of assumptions or other inputs	366,165,567	505,923,416
3. Net excess of projected over actual earnings on pension plan investments (if any)	642,710,282	N/A
4. Difference between expected and actual experience in the Total Pension Liability	<u>0</u>	<u>0</u>
5. Total deferred outflows of resources	\$1,041,313,062	\$528,529,882
Deferred Inflows of Resources		
6. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$32,437,213	\$22,606,466
7. Changes of assumptions or other inputs	0	0
8. Net excess of actual over projected earnings on pension plan investments (if any)	N/A	143,751,846
9. Difference between expected and actual experience in the Total Pension Liability	<u>404,571,452</u>	<u>215,027,670</u>
10. Total deferred inflows of resources	\$437,008,665	\$381,385,982

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:

2017	N/A	-\$934,830
2018	\$116,566,007	-934,830
2019	116,566,006	-934,831
2020	277,974,109	160,473,272
2021	106,975,956	-10,524,881
2022	-13,777,681	0
Thereafter	0	0

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

SECTION 2: GAS 68 Information for the Los Angeles City Employees' Retirement System

EXHIBIT 9

Deferred Outflows of Resources and Deferred Inflows of Resources – City

Reporting Date for Employer under GAS 68	June 30, 2017	June 30, 2016
Measurement Date for Employer under GAS 68	June 30, 2016	June 30, 2015
Deferred Outflows of Resources		
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$27,173,802	\$15,804,046
2. Changes of assumptions or other inputs	301,246,126	414,193,761
3. Net excess of projected over actual earnings on pension plan investments (if any)	528,760,756	N/A
4. Difference between expected and actual experience in the Total Pension Liability	<u>0</u>	<u>0</u>
5. Total deferred outflows of resources	\$857,180,684	\$429,997,807
Deferred Inflows of Resources		
6. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$3,097,052	\$4,002,623
7. Changes of assumptions or other inputs	0	0
8. Net excess of actual over projected earnings on pension plan investments (if any)	N/A	117,688,005
9. Difference between expected and actual experience in the Total Pension Liability	<u>332,842,827</u>	<u>176,040,714</u>
10. Total deferred inflows of resources	\$335,939,879	\$297,731,342

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:

2017	N/A	\$2,694,853
2018	\$103,070,794	2,694,853
2019	103,070,793	2,694,853
2020	234,203,005	133,178,845
2021	91,340,488	-8,996,939
2022	-10,444,275	0
Thereafter	0	0

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

SECTION 2: GAS 68 Information for the Los Angeles City Employees' Retirement System

EXHIBIT 9

Deferred Outflows of Resources and Deferred Inflows of Resources – Airports

Reporting Date for Employer under GAS 68	June 30, 2017	June 30, 2016
Measurement Date for Employer under GAS 68	June 30, 2016	June 30, 2015
Deferred Outflows of Resources		
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$5,263,411	\$6,802,420
2. Changes of assumptions or other inputs	50,491,346	70,724,081
3. Net excess of projected over actual earnings on pension plan investments (if any)	88,624,683	N/A
4. Difference between expected and actual experience in the Total Pension Liability	<u>0</u>	<u>0</u>
5. Total deferred outflows of resources	\$144,379,440	\$77,526,501
Deferred Inflows of Resources		
6. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$18,359,669	\$15,081,474
7. Changes of assumptions or other inputs	0	0
8. Net excess of actual over projected earnings on pension plan investments (if any)	N/A	20,095,368
9. Difference between expected and actual experience in the Total Pension Liability	<u>55,787,215</u>	<u>30,059,163</u>
10. Total deferred inflows of resources	\$74,146,884	\$65,236,005

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:

2017	N/A	-\$2,757,826
2018	\$11,690,647	-2,757,826
2019	11,690,647	-2,757,826
2020	35,530,690	21,388,885
2021	13,641,782	-824,911
2022	-2,321,210	0
Thereafter	0	0

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

SECTION 2: GAS 68 Information for the Los Angeles City Employees' Retirement System

EXHIBIT 9

Deferred Outflows of Resources and Deferred Inflows of Resources – Harbor

Reporting Date for Employer under GAS 68	June 30, 2017	June 30, 2016
Measurement Date for Employer under GAS 68	June 30, 2016	June 30, 2015
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	14,428,095	21,005,574
3. Net excess of projected over actual earnings on pension plan investments (if any)	25,324,843	N/A
4. Difference between expected and actual experience in the Total Pension Liability	<u>0</u>	<u>0</u>
5. Total deferred outflows of resources	\$39,752,938	\$21,005,574
Deferred Inflows of Resources		
6. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$10,980,492	\$3,522,369
7. Changes of assumptions or other inputs	0	0
8. Net excess of actual over projected earnings on pension plan investments (if any)	N/A	5,968,473
9. Difference between expected and actual experience in the Total Pension Liability	<u>15,941,410</u>	<u>8,927,793</u>
10. Total deferred inflows of resources	\$26,921,902	\$18,418,635

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:

2017	N/A	-\$871,857
2018	\$1,804,566	-871,857
2019	1,804,566	-871,858
2020	8,240,414	5,905,542
2021	1,993,686	-703,031
2022	-1,012,196	0
Thereafter	0	0

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

SECTION 2: GAS 68 Information for the Los Angeles City Employees' Retirement System

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, 2016. 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 5.24 years determined as of June 30, 2015 (the beginning of the measurement period ending June 30, 2016).

In addition, the difference between the actual employer contributions and the proportionate share of the employer contributions during the measurement period ended June 30, 2016 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.

SECTION 2: GAS 68 Information for the Los Angeles City Employees' Retirement System

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%
2017	100.000%	5,615,666,914	1,876,946,179	299.19%	67.77%

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

SECTION 2: GAS 68 Information for the Los Angeles City Employees' Retirement System

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%
2017	82.271%	4,620,035,451	1,540,925,299	299.82%	67.77%

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

SECTION 2: GAS 68 Information for the Los Angeles City Employees' Retirement System

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%
2017	13.789%	774,356,211	260,929,145	296.77%	67.77%

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

SECTION 2: GAS 68 Information for the Los Angeles City Employees' Retirement System

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%
2017	3.940%	221,275,252	75,091,735	294.67%	67.77%

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

SECTION 2: GAS 68 Information for the Los Angeles City Employees' Retirement System

EXHIBIT 11

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

Reporting Date for Employer under GAS 68	June 30, 2017	June 30, 2016
Measurement Date for Employer under GAS 68	June 30, 2016	June 30, 2015
Reconciliation of Net Pension Liability		
1. Beginning Net Pension Liability	\$4,989,426,361	\$4,457,773,626
2. Pension Expense	609,626,067	463,978,261
3. Employer Contributions	-440,546,011	-381,140,923
4. New Net Deferred Inflows/Outflows	456,225,667	356,199,477
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	934,830	92,615,920
8. Recognition of Prior Deferred Flows Due to Change in Proportion	<u>0</u>	<u>0</u>
9. Ending Net Pension Liability	\$5,615,666,914	\$4,989,426,361

SECTION 2: GAS 68 Information for the Los Angeles City Employees' Retirement System

EXHIBIT 11 (continued)

Schedule of Reconciliation of Net Pension Liability – City

Reporting Date for Employer under GAS 68	June 30, 2017	June 30, 2016
Measurement Date for Employer under GAS 68	June 30, 2016	June 30, 2015
Reconciliation of Net Pension Liability		
1. Beginning Net Pension Liability	\$4,084,786,762	\$3,654,125,793
2. Pension Expense	508,713,614	383,313,927
3. Employer Contributions	-362,439,265	-312,035,750
4. New Net Deferred Inflows/Outflows	375,338,992	291,616,471
5. Change in Allocation of Prior Deferred Inflows/Outflows	590,933	311,100
6. New Net Deferred Flows Due to Change in Proportion	15,735,515	-4,002,623
7. Recognition of Prior Deferred Inflows/Outflows	769,088	75,823,603
8. Recognition of Prior Deferred Flows Due to Change in Proportion	<u>-3,460,188</u>	<u>-4,365,759</u>
9. Ending Net Pension Liability	\$4,620,035,451	\$4,084,786,762

SECTION 2: GAS 68 Information for the Los Angeles City Employees' Retirement System

EXHIBIT 11 (continued)

Schedule of Reconciliation of Net Pension Liability – Airports

Reporting Date for Employer under GAS 68	June 30, 2017	June 30, 2016
Measurement Date for Employer under GAS 68	June 30, 2016	June 30, 2015
Reconciliation of Net Pension Liability		
1. Beginning Net Pension Liability	\$697,482,231	\$615,348,678
2. Pension Expense	79,679,743	62,233,336
3. Employer Contributions	-60,747,823	-53,280,478
4. New Net Deferred Inflows/Outflows	62,909,924	49,793,862
5. Change in Allocation of Prior Deferred Inflows/Outflows	-279,566	-528,711
6. New Net Deferred Flows Due to Change in Proportion	-7,444,348	6,802,420
7. Recognition of Prior Deferred Inflows/Outflows	128,906	12,946,971
8. Recognition of Prior Deferred Flows Due to Change in Proportion	<u>2,627,144</u>	<u>4,166,153</u>
9. Ending Net Pension Liability	\$774,356,211	\$697,482,231

SECTION 2: GAS 68 Information for the Los Angeles City Employees' Retirement System

EXHIBIT 11 (continued)

Schedule of Reconciliation of Net Pension Liability – Harbor

Reporting Date for Employer under GAS 68	June 30, 2017	June 30, 2016
Measurement Date for Employer under GAS 68	June 30, 2016	June 30, 2015
Reconciliation of Net Pension Liability		
1. Beginning Net Pension Liability	\$207,157,368	\$188,299,155
2. Pension Expense	21,232,710	18,430,998
3. Employer Contributions	-17,358,923	-15,824,695
4. New Net Deferred Inflows/Outflows	17,976,751	14,789,144
5. Change in Allocation of Prior Deferred Inflows/Outflows	-311,367	217,611
6. New Net Deferred Flows Due to Change in Proportion	-8,291,167	-2,799,797
7. Recognition of Prior Deferred Inflows/Outflows	36,836	3,845,346
8. Recognition of Prior Deferred Flows Due to Change in Proportion	<u>833,044</u>	<u>199,606</u>
9. Ending Net Pension Liability	\$221,275,252	\$207,157,368

SECTION 2: GAS 68 Information for the Los Angeles City Employees' Retirement System

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:							Thereafter
			2016	2017	2018	2019	2020	2021	2022	
2015	-\$161,871,265	5.62	-\$28,802,716	-\$28,802,716	-\$28,802,716	-\$28,802,716	-\$17,857,685	\$0	\$0	\$0
2016	-135,821,076	5.42	-25,059,239	-25,059,239	-25,059,239	-25,059,239	-25,059,239	-10,524,881	0	0
2017	-300,812,751	5.24	N/A	-57,407,014	-57,407,014	-57,407,014	-57,407,014	-57,407,014	-13,777,681	0
Net increase (decrease) in pension expense			-\$53,861,955	-\$111,268,969	-\$111,268,969	-\$111,268,969	-\$100,323,938	-\$67,931,895	-\$13,777,681	\$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:							Thereafter
			2016	2017	2018	2019	2020	2021	2022	
2015	\$785,439,114	5.62	\$139,757,849	\$139,757,849	\$139,757,849	\$139,757,849	\$86,649,869	\$0	\$0	\$0
2016	0	5.42	0	0	0	0	0	0	0	0
2017	0	5.24	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	\$86,649,869	\$0	\$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, 2015 (the beginning of the measurement period ending June 30, 2016) is 5.24 years.

Amortization amounts prior to June 30, 2016 have been omitted from this exhibit. These amounts can be found in prior years' GAS 68 reports.

SECTION 2: GAS 68 Information for the Los Angeles City Employees' Retirement System

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:							
			2016	2017	2018	2019	2020	2021	2022	Thereafter
2015	-\$1,017,855,266	5.00	-\$203,571,053	-\$203,571,053	-\$203,571,053	-\$203,571,054	\$0	\$0	\$0	\$0
2016	583,701,643	5.00	116,740,329	116,740,329	116,740,329	116,740,329	116,740,327	0	0	0
2017	874,539,255	5.00	<u>N/A</u>	<u>174,907,851</u>	<u>174,907,851</u>	<u>174,907,851</u>	<u>174,907,851</u>	<u>174,907,851</u>	<u>0</u>	<u>0</u>
Net increase (decrease) in pension expense			-\$86,830,724	\$88,077,127	\$88,077,127	\$88,077,126	\$291,648,178	\$174,907,851	\$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:							
		2016	2017	2018	2019	2020	2021	2022	Thereafter
2015	-\$394,287,417	-\$92,615,920	-\$92,615,920	-\$92,615,920	-\$92,615,921	\$68,792,184	\$0	\$0	\$0
2016	447,880,567	91,681,090	91,681,090	91,681,090	91,681,090	91,681,088	-10,524,881	0	0
2017	573,726,504	<u>N/A</u>	<u>117,500,837</u>	<u>117,500,837</u>	<u>117,500,837</u>	<u>117,500,837</u>	<u>117,500,837</u>	<u>-13,777,681</u>	<u>0</u>
Net increase (decrease) in pension expense		-\$934,830	\$116,566,007	\$116,566,007	\$116,566,006	\$277,974,109	\$106,975,956	-\$13,777,681	\$0

Amortization amounts prior to June 30, 2016 have been omitted from this exhibit. These amounts can be found in prior years' GAS 68 reports.

SECTION 2: GAS 68 Information for the Los Angeles City Employees' Retirement System

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, 2016. 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, 2016 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, 2017

	Total Change to be Recognized	Recognition Period (Years)	Reporting Date for Employer under GAS 68, Year Ended June 30:						
			2017	2018	2019	2020	2021	2022	Thereafter
City	\$19,446,722	5.24	\$3,711,207	\$3,711,207	\$3,711,207	\$3,711,207	\$3,711,207	\$890,687	\$0
Airports	-9,200,091	5.24	-1,755,743	-1,755,743	-1,755,743	-1,755,743	-1,755,743	-421,376	0
Harbor	<u>-10,246,631</u>	5.24	<u>-1,955,464</u>	<u>-1,955,464</u>	<u>-1,955,464</u>	<u>-1,955,464</u>	<u>-1,955,464</u>	<u>-469,311</u>	<u>0</u>
Total for all Employer Categories	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0

SECTION 2: GAS 68 Information for the Los Angeles City Employees' Retirement System

EXHIBIT 13 (continued)

Allocation of Changes in Total Net Pension Liability

The corresponding amounts for the measurement period ending on June 30, 2015 are shown below:

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	Thereafter
City	-\$4,908,194	5.42	-\$905,571	-\$905,571	-\$905,571	-\$905,571	-\$905,571	-\$380,339	\$0
Airports	8,341,429	5.42	1,539,009	1,539,009	1,539,009	1,539,009	1,539,009	646,384	0
Harbor	<u>-3,433,235</u>	5.42	<u>-633,438</u>	<u>-633,438</u>	<u>-633,438</u>	<u>-633,438</u>	<u>-633,438</u>	<u>-266,045</u>	<u>0</u>
Total for all Employer Categories	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0

SECTION 2: GAS 68 Information for the Los Angeles City Employees' Retirement System

EXHIBIT 13 (continued)

Allocation of Changes in Total Net Pension Liability

The corresponding amounts for the measurement period ending on June 30, 2014 are shown below:

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, 2015

	Total Change to be Recognized	Recognition Period (Years)	Reporting Date for Employer under GAS 68, Year Ended June 30:						
			2015	2016	2017	2018	2019	2020	Thereafter
City	\$24,535,564	5.62	\$4,365,759	\$4,365,759	\$4,365,759	\$4,365,759	\$4,365,759	\$2,706,769	\$0
Airports	-23,413,780	5.62	-4,166,153	-4,166,153	-4,166,153	-4,166,153	-4,166,153	-2,583,015	0
Harbor	<u>-1,121,784</u>	5.62	<u>-199,606</u>	<u>-199,606</u>	<u>-199,606</u>	<u>-199,606</u>	<u>-199,606</u>	<u>-123,754</u>	<u>0</u>
Total for all Employer Categories	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0

SECTION 3: Actuarial Assumptions and Methods and Appendices for the Los Angeles City Employees' Retirement System

Actuarial Assumptions and Methods

For June 30, 2016 Measurement Date and Employer Reporting as of June 30, 2017

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 3 members. These assumptions were adopted by the Board.

Economic Assumptions:

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 3.

**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:

<u>Service</u>	<u>Percentage Increase</u>
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%

SECTION 3: Actuarial Assumptions and Methods and Appendices for the Los Angeles City Employees' Retirement System

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 to 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.

Age	Rate (%)	
	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.

SECTION 3: Actuarial Assumptions and Methods and Appendices for the Los Angeles City Employees' Retirement System

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:

Age	Rate (%)			
	Tier 1		Tier 3	
	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.

SECTION 3: Actuarial Assumptions and Methods and Appendices for the Los Angeles City Employees' Retirement System

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.

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.

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.

SECTION 3: Actuarial Assumptions and Methods and Appendices for the Los Angeles City Employees' Retirement System

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.

SECTION 3: Actuarial Assumptions and Methods and Appendices for the Los Angeles City Employees' Retirement System

APPENDIX A

**Calculation of Discount Rate as of June 30, 2016
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)
2015	\$11,921	\$647	\$770	\$17	\$29	\$11,809
2016	11,809	637	866	17	873	12,436
2017	12,436	650	893	18	919	13,093
2018	13,093	664	948	19	967	13,757
2019	13,757	673	1,008	20	1,014	14,416
2020	14,416	685	1,072	21	1,061	15,069
2021	15,069	719	1,139	22	1,109	15,736
2022	15,736	744	1,208	23	1,157	16,407
2023	16,407	754	1,278	24	1,205	17,064
2042	24,517	111 *	2,329	35	1,744	24,008
2043	24,008	105 *	2,336	35	1,706	23,448
2044	23,448	100 *	2,337	34	1,663	22,840
2045	22,840	95 *	2,333	33	1,618	22,187
2046	22,187	89 *	2,326	32	1,569	21,487
2079	1,195	12 *	281	2	78	1,003
2080	1,003	10 *	242	1	65	835
2081	835	9 *	207	1	54	690
2082	690	8 *	176	1	45	566
2083	566	7 *	148	1	36	460
2099	12	0 ***	4	0	1	10
2100	10	0 ***	3	0	1	8
2101	8	0 ***	2	0	1	7
2102	7	0 ***	2	0	0	5
2103	5	0 ***	1	0	0	4
2104	4	0 ***	1	0	0	4
2105	4	0 ***	1	0	0	3
2106	3	0 ***	1	0	0	2
2107	2	0 ***	1	0	0	2
2108	2	0 ***	1	0	0	2
2109	2	0 ***	0 **	0	0	1
2110	1	0 ***	0 **	0	0	1
2111	1	0 ***	0 **	0	0	1
2112	1	0 ***	0 **	0	0	1
2113	1	0 ***	0 **	0	0	0
2114	0	0 ***	0 **	0	0	0

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

** Less than \$1 million, when rounded.

Note that in preparing the above projections, we have not taken into consideration the one-year delay between the date of the contribution rate calculation and the implementation.

SECTION 3: Actuarial Assumptions and Methods and Appendices for the Los Angeles City Employees' Retirement System

APPENDIX A (continued)

Calculation of Discount Rate as of June 30, 2016 Projection of Pension Plan's Fiduciary Net Position (\$ in millions)

Notes:

- (1) Amounts may not total exactly due to rounding.
- (2) Amounts shown for the year beginning July 1, 2015 row are actual amounts, based on the unaudited financial statements provided by LACERS.
- (3) Years 2024-2041, 2047-2078, and 2084-2098 have been omitted from this table.
- (4) Column (a): None of the projected beginning Plan Fiduciary Net Position amounts shown have 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, 2016); plus employer contributions to the unfunded actuarial accrued liability; plus contributions to fund each year's annual administrative expenses reflecting an 15-year amortization schedule. Contributions are assumed to occur halfway through the year, on average.
- (6) Column (c): Projected benefit payments have been determined in accordance with paragraph 39 of GAS Statement No. 67, and are based on the closed group of active, inactive vested, retired members, and beneficiaries as of June 30, 2016. The projected benefit payments reflect the cost of living increase assumptions used in the June 30, 2016 funding valuation report. 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% was applied to all periods of projected benefit payments to determine the discount rate.
- (7) Column (d): Projected administrative expenses are calculated as approximately 0.14% of the projected beginning Plan Fiduciary Net Position amount. The 0.14% portion was based on the actual fiscal year 2015 - 2016 administrative expenses as a percentage of the beginning Plan Fiduciary Net Position amount as of July 1, 2015. 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, 2016 shown earlier in this report, pursuant to paragraph 44 of GASB Statement No. 67.

SECTION 3: Actuarial Assumptions and Methods and Appendices for the Los Angeles City Employees' Retirement System

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.

SECTION 3: Actuarial Assumptions and Methods and Appendices for the Los Angeles City Employees' Retirement System

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.

SECTION 3: Actuarial Assumptions and Methods and Appendices for the Los Angeles City Employees' Retirement System

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.)

SECTION 3: Actuarial Assumptions and Methods and Appendices for the Los Angeles City Employees' Retirement System

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.

SECTION 3: Actuarial Assumptions and Methods and Appendices for the Los Angeles City Employees' Retirement System

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.

SECTION 3: Actuarial Assumptions and Methods and Appendices for the Los Angeles City Employees' Retirement System

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.

SECTION 3: Actuarial Assumptions and Methods and Appendices for the Los Angeles City Employees' Retirement System

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**

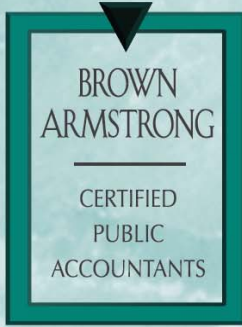
**FOR EMPLOYER REPORTING UNDER
GOVERNMENTAL ACCOUNTING STANDARDS
BOARD (GASB) STATEMENT NO. 68
AS OF JUNE 30, 2017
USING A MEASUREMENT DATE OF JUNE 30, 2016**

**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, 2017
USING A MEASUREMENT DATE OF JUNE 30, 2016**

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BROWN ARMSTRONG

Certified Public Accountants

INDEPENDENT AUDITOR'S REPORT

To the Audit Committee and Board of Administration of the
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, 2016 and 2015, 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, 2016, 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.

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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, 2016 and 2015, 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, 2016, 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, 2016, and our report thereon, dated November 21, 2016, 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
July 5, 2017

**LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
SCHEDULE OF EMPLOYER ALLOCATIONS
FOR THE FISCAL YEARS ENDED JUNE 30, 2016 AND 2015**

Employer	Proportionate Shares					
	2016			2015		
	Actual Contributions	Percentage*	Net Pension Liability	Actual Contributions	Percentage*	Net Pension Liability
City	\$ 362,439,265	82.271%	\$ 4,620,035,451	\$ 312,035,750	81.869%	\$ 4,084,786,762
Airports	60,747,823	13.789%	774,356,211	53,280,478	13.979%	697,482,231
Harbor	17,358,923	3.940%	221,275,252	15,824,695	4.152%	207,157,368
Total for all Employers	<u>\$ 440,546,011</u>	<u>100.000%</u>	<u>\$ 5,615,666,914</u>	<u>\$ 381,140,923</u>	<u>100.000%</u>	<u>\$ 4,989,426,361</u>

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

See accompanying notes and independent auditor's report.

**LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
NOTES TO SCHEDULE OF EMPLOYER ALLOCATIONS
FOR THE FISCAL YEARS ENDED JUNE 30, 2016 AND 2015**

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, 2016, and the GASB Statement No. 68 Actuarial Valuation Based on June 30, 2016 Measurement Date for Employer Reporting as of June 30, 2017 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, 2016, the actuarially determined contributions of Employers to LACERS by the City were 23.02% of covered payroll, based on the June 30, 2014 actuarial valuation. Upon closing the fiscal year 2015-16, 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 before considering additional City contributions required for transferring Tier 2 Members to Tier 1 and creating Tier 3, 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 23.47%. 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, 2016 and 2015, is determined by the Employer's contributions for the 2015-16 and 2014-15 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, 2016**

Employer	Deferred Outflows of Resources						Deferred Inflows of Resources				Pension Expense		
	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	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 Plan Pension Expense	Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Employer Pension Expense
City	\$ 4,620,035,451	\$ -	\$ 528,760,756	\$ 301,246,126	\$ 27,173,802	\$ 857,180,684	\$ 332,842,827	\$ -	\$ 3,097,052	\$ 335,939,879	\$ 501,542,219	\$ 7,171,395	\$ 508,713,614
Airports	774,356,211	-	88,624,683	50,491,346	5,263,411	144,379,440	55,787,215	-	18,359,669	74,146,884	84,062,630	(4,382,887)	79,679,743
Harbor	221,275,252	-	25,324,843	14,428,095	-	39,752,938	15,941,410	-	10,980,492	26,921,902	24,021,218	(2,788,508)	21,232,710
Total for All Employers	\$ 5,615,666,914	\$ -	\$ 642,710,282	\$ 366,165,567	\$ 32,437,213	\$ 1,041,313,062	\$ 404,571,452	\$ -	\$ 32,437,213	\$ 437,008,665	\$ 609,626,067	\$ -	\$ 609,626,067

See accompanying notes and independent auditor's report.

**LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
NOTES TO SCHEDULE OF PENSION AMOUNTS BY EMPLOYER
AS OF AND FOR THE FISCAL YEAR ENDED JUNE 30, 2016**

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, 2016, and the GASB Statement No. 68 Actuarial Valuation Based on June 30, 2016 Measurement Date for Employer Reporting as of June 30, 2017 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, 2016 valuation were 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, 2016, and the Total Pension Liability as of the valuation date June 30, 2016.

The components of the Plan's Net Pension Liability at June 30, 2016 and 2015, were as follows:

	<u>Fiscal Year Ended June 30, 2016</u>	<u>Fiscal Year Ended June 30, 2015</u>
Total Pension Liability	\$ 17,424,996,329	\$ 16,909,996,380
Plan Fiduciary Net Position	<u>(11,809,329,415)</u>	<u>(11,920,570,019)</u>
Plan's Net Pension Liability	<u>\$ 5,615,666,914</u>	<u>\$ 4,989,426,361</u>
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	<u>67.8%</u>	<u>70.5%</u>

NOTE 2 – ACTUARIAL ASSUMPTIONS (Continued)

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

The Total Pension Liability for June 30, 2016, was determined based on the June 30, 2016 actuarial valuation, using the following actuarial assumptions, applied to all periods included in the measurement:

ACTUARIAL VALUATION ASSUMPTIONS

Valuation Date	June 30, 2016
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, including inflation
Inflation	3.25%
Cost-of-Living Adjustments	Tier 1: 3.00%, Tier 3: 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 3.

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, 2016.

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 table on the following page:

NOTE 2 – ACTUARIAL ASSUMPTIONS (Continued)Long-Term Expected Rate of Return by Asset Class (Continued)

<u>Investment Asset Class</u>	<u>Target Allocation</u>	<u>Long-Term Expected Real Rate of Return</u>
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	<u>100.00%</u>	

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, 2016, is to be amortized over the remaining periods.

The changes in assumptions and differences between expected and actual experience are recognized over the average of the expected remaining service lives of all employees that are provided with pensions through LACERS determined as of June 30, 2015, the beginning of the measurement period ending. For the measurement period date ending June 30, 2016, the average is 5.24 years. Prior period changes in assumptions and differences between expected and actual experience are continued to be recognized based on the expected remaining service lives of all employees calculated as of those prior measurement dates.

In addition, the difference between the actual Employer contributions and the proportionate share of the Employer contributions are the same as noted above. 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 and GASB Statement No. 71. 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 decrease 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, 2016, and in accordance with requirements promulgated by GASB Statements No. 67 and No. 68. The net pension liability at June 30, 2016, is reported in the Notes to Los Angeles City Employees' Retirement System Basic Financial Statements and Required Supplementary Information following the Notes.