LACERS
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

Board of Administration Agenda

REGULAR MEETING

TUESDAY, JANUARY 22, 2019

TIME: 10:00 A.M.

MEETING LOCATION:

LACERS Ken Spiker Boardroom
202 West First Street, Suite 500
Los Angeles, California 90012-4401

Live Board Meetings can be heard at: (213) 621-CITY (Metro), (818) 904-9450 (Valley), (310) 471-CITY (Westside), and (310) 547-CITY (San Pedro Area).

Sign Language Interpreters, Communication Access Real-Time Transcription, Assistive Listening Devices, or other auxiliary aids and/or services may be provided upon request. To ensure availability, you are advised to make your request at least 72 hours prior to the meeting you wish to attend. Due to difficulties in securing Sign Language Interpreters, five or more business days' notice is strongly recommended. For additional information, please contact: Board of Administration Office at (213) 473-7169.

I. PUBLIC COMMENTS ON MATTERS WITHIN THE BOARD'S JURISDICTION

II. APPROVAL OF MINUTES FOR REGULAR BOARD MEETING OF JANUARY 8, 2019 AND POSSIBLE BOARD ACTION

III. BOARD PRESIDENT VERBAL REPORT

IV. GENERAL MANAGER VERBAL REPORT

A. REPORT ON DEPARTMENT OPERATIONS

B. UPCOMING AGENDA ITEMS

C. LACERS NEW OFFICE HOURS STATUS VERBAL REPORT

V. RECEIVE AND FILE ITEMS

A. RECEIVE AND FILE – COMPREHENSIVE ANNUAL FINANCIAL REPORT FOR FISCAL YEAR ENDED JUNE 30, 2018

B. MONTHLY REPORT ON SEMINARS AND CONFERENCES (NOVEMBER 2018)

C. MONTHLY REPORT ON SEMINARS AND CONFERENCES (DECEMBER 2018)

VI. CONSENT AGENDA

A. ADOPTION OF 2019 EMPLOYEE MEMBER OF THE BOARD ELECTION CALENDAR AND POSSIBLE BOARD ACTION

VII. COMMITTEE REPORT(S)

A. INVESTMENT COMMITTEE VERBAL REPORT ON THE MEETING OF JANUARY 8, 2019

VIII. BENEFITS ADMINISTRATION

A. BOARD RULES RELATED TO MEMBER AND BENEFITS ADMINISTRATION AND POSSIBLE BOARD ACTION

IX. DISABILITY RETIREMENT APPLICATION(S)

A. CLOSED SESSION PURSUANT TO GOVERNMENT CODE SECTION 54957(b) TO CONSIDER THE DISABILITY RETIREMENT APPLICATION OF JUANA ALAMILLO AND POSSIBLE BOARD ACTION

X. INVESTMENTS

A. CHIEF INVESTMENT OFFICER VERBAL REPORT

B. INVESTMENT MANAGER CONTRACT WITH ROBERT W. BAIRD & CO., INC. REGARDING THE MANAGEMENT OF AN ACTIVE DOMESTIC FIXED INCOME PORTFOLIO AND POSSIBLE BOARD ACTION

C. INVESTMENT MANAGER CONTRACT WITH LOOMIS, SAYLES & COMPANY, L.P. REGARDING THE MANAGEMENT OF AN ACTIVE CORE DOMESTIC FIXED INCOME PORTFOLIO AND POSSIBLE BOARD ACTION

D. PRESENTATION BY NEPC, LLC REGARDING ESG/IMPACT INVESTING OVERVIEW

XI. OTHER BUSINESS

XII. NEXT MEETING: The next Regular meeting of the Board is scheduled for Tuesday, February 12, 2019 at 10:00 a.m. in the LACERS Ken Spiker Boardroom, 202 West First Street, Suite 500, Los Angeles, CA 90012-4401.

XIII. ADJOURNMENT

MINUTES OF THE REGULAR MEETING
BOARD OF ADMINISTRATION
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

LACERS Ken Spiker Boardroom
202 West First Street, Fifth Floor
Los Angeles, California

January 8, 2019

10:01 a.m.

Agenda of: Jan. 22, 2019

Item No: II

PRESENT:	President:	Cynthia M. Ruiz
	Vice President: (arrived at 10:28 a.m.)	Elizabeth L. Greenwood
	Commissioners:	Elizabeth Lee Sandra Lee Nilza R. Serrano Sung Won Sohn Michael R. Wilkinson
	Manager-Secretary:	Neil M. Guglielmo
	Executive Assistant:	Ani Ghoukassian
	Legal Counsel:	Anya Freedman

The Items in the Minutes are numbered to correspond with the Agenda.

I

PUBLIC COMMENTS ON MATTERS WITHIN THE BOARD'S JURISDICTION – President Ruiz asked if there were any persons who wished to speak on matters within the Board's jurisdiction, to which there was no response and no public comment cards were received.

II

APPROVAL OF MINUTES FOR REGULAR BOARD MEETING OF DECEMBER 11, 2018 AND POSSIBLE BOARD ACTION – A motion to approve the Regular Board Meeting minutes of December 11, 2018 was moved by Commissioner Serrano, seconded by Commissioner Sohn, and adopted by the following vote: Ayes, Commissioners Elizabeth Lee, Sandra Lee, Serrano, Sohn, Wilkinson, and President Ruiz -6; Nays, None.

III

BOARD PRESIDENT VERBAL REPORT – President Ruiz discussed the fluctuating markets and reminded everyone that LACERS is not reactive and LACERS investment strategies are for long term. President Ruiz also announced that starting with today the LACERS Board Meetings can be heard live using Council Phone.

IV

GENERAL MANAGER VERBAL REPORT

A. REPORT ON DEPARTMENT OPERATIONS – Neil M. Guglielmo, General Manager discussed the following items:

- LACERS Board Meetings can be heard on Council Phone.
- 94% of Airport Peace Officers have paid for the Advanced Tier 1 Benefits by the deadline of January 7, 2019.
- 115 Trust Account with Northern Trust was opened on Friday, January 4, 2019.
- 1099's are being processed; After the PAS implementation, there has been less exceptions.
- Staff and attendees enjoyed LACERS Holiday Party.

B. UPCOMING AGENDA ITEMS – Neil M. Guglielmo, General Manager, stated the following future agenda item:

- January 22, 2019 – Status report on change of LACERS Office Hours
- January 22, 2019 – Board Rules for adoption
- Benchmarking
- New Website development
- Wi-fi in common areas at LACERS
- ALEX software tool to expand

President Ruiz thanked Mr. Guglielmo for the Commissioner training plan that is forthcoming and specific to each Commissioner.

V

RECEIVE AND FILE ITEMS

A. BENEFITS PAYMENTS APPROVED BY GENERAL MANAGER – The report was received by the Board and filed.

B. MARKETING CESSATION NOTIFICATION – The report was received by the Board and filed.

VI

COMMITTEE REPORTS(S)

A. INVESTMENT COMMITTEE VERBAL REPORT ON THE MEETING OF DECEMBER 11, 2018 – Commissioner Sohn stated the Committee received a presentation by Robert W. Baird & Co. Northern Trust, and discussed the Invesment Manager Contract with Aegon USA.

VII

INVESTMENTS

A. CHIEF INVESTMENT OFFICER VERBAL REPORT – Rod June, Chief Investment Officer, reported on the portfolio value, $16.46 Billion as of January 7, 2019. Mr. June discussed the following items:

- 1 year unaudited return ending December 31, 2018 is negative 3.92%.
- Real estate portfolio performance and Aegon USA Investment on the Board agenda today.
- Future Agenda items include: Several investment manager contracts and a presentation by NEPC on ESG factors.

B. PRESENTATION BY THE TOWNSEND GROUP OF THE REAL ESTATE PROGRAM PORTFOLIO PERFORMANCE REVIEW FOR THE PERIOD ENDING JUNE 30, 2018 – Felix Fels with Townsend Group presented this item to the Board.

C. INVESTMENT MANAGER CONTRACT WITH AEGON USA INVESTMENT MANAGEMENT, LLC REGARDING THE MANAGEMENT OF AN ACTIVE U.S. HIGH YIELD FIXED INCOME PORTFOLIO AND POSSIBLE BOARD ACTION – Bryan Fujita, Chief Operating Officer and Jimmy Wang, Investment Officer I, presented this item to the Board. Vice President Greenwood moved approval of the following Resolution:

CONTRACT EXTENSION
AEGON USA INVESTMENT MANAGEMENT, LLC
ACTIVE U.S. HIGH YIELD FIXED INCOME PORTFOLIO MANAGEMENT

RESOLUTION 190108-A

WHEREAS, LACERS current three-year contract with Aegon USA Investment Management, LLC (AUIM) for active U.S. high yield fixed income portfolio management expires on March 31, 2019; and,

WHEREAS, AUIM has been “On-Watch” for organizational reasons since October 5, 2017, in accordance with the LACERS Manager Monitoring Policy (Policy); and,

WHEREAS, AUIM has shown progress toward compliance with the Policy during the “On-Watch” period; and,

WHEREAS, on January 8, 2019, the Board approved the Investment Committee’s recommendation for a one-year contract extension; and,

NOW, THEREFORE, BE IT RESOLVED, that the General Manager is hereby authorized to approve and execute a contract subject to satisfactory business and legal terms and consistent with the following services and terms:

Company Name:	Aegon USA Investment Management, LLC
Service Provided:	Active U.S. High Yield Fixed Income Portfolio
Effective Date:	April 1, 2019 through March 31, 2020

Duration: One year

Benchmark: Bloomberg Barclays U.S. Corporate High Yield 2% Capped Index

Allocation as of November 30, 2018: $376 million

Which motion was seconded by Commissioner Sohn, and adopted by the following vote: Ayes, Commissioners Elizabeth Lee, Sandra Lee, Serrano, Sohn, Wilkinson, Vice President Greenwood, and President Ruiz -7; Nays, None.

VIII

DIVISION SPOTLIGHT

A. MANAGEMENT AND OFFICE SERVICES SECTION – DOCUMENT MANAGMENT – John Koontz, Senior Management Analyst, Julie Guan, Management Assistant, and Veronica Flores, Senior Administrative Clerk, presented this item to the Board.

IX

OTHER BUSINESS – Anya Freedman, Assistant City Attorney, advised that the RFP for outside council law firm has been published on BAVN and the proposals are due on January 28, 2019.

X

NEXT MEETING – The next Regular meeting of the Board is scheduled for Tuesday, January 22, 2019 at 10:00 a.m. in the LACERS Ken Spiker Boardroom, 202 West First Street, Suite 500, Los Angeles, CA 90012-4401.

XI

ADJOURNMENT – There being no further discussion before the Board, President Ruiz adjourned the meeting at 11:13 a.m. in honor of Los Angeles Harbor Commissioner David Arian, who passed away on January 2, 2019.

Cynthia M. Ruiz
President

Neil M. Guglielmo
Manager-Secretary

LACERS
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

Report to Board of Administration

From: Neil M. Guglielmo, General Manager	Agenda of: **JANUARY 22, 2019**
	ITEM: V-A

SUBJECT: **COMPREHENSIVE ANNUAL FINANCIAL REPORT FOR FISCAL YEAR ENDED JUNE 30, 2018**

Recommendation:

That the Board receive and file the LACERS Comprehensive Annual Financial Report for Fiscal Year ended June 30, 2018.

Discussion:

Each year, LACERS publishes a Comprehensive Annual Financial Report (CAFR) to publicly disclose its financial information, as evidence of its sound stewardship over the pension trust fund. The CAFR provides a comprehensive look back at the fiscal year just ended regarding LACERS' operations and financial condition.

Data points of interest, as well as a summary of the year's accomplishments, are found in the General Manager's *Letter of Transmittal* in *Section I - Introduction*. This is followed by *Section II - Financial* which includes a financial highlight and analysis in narrative format titled *Management's Discussion and Analysis,* and LACERS' audited financial statements. The remaining three sections are: *III - Investment* which discusses the investment results and activities; *IV - Actuarial* which includes the condensed actuarial valuations; and, *V - Statistical* which provides historical information.

The CAFR is prepared in accordance with the requirements of the Government Finance Officers Association (GFOA), and has been submitted for consideration of the GFOA Achievement for Excellence in Financial Reporting Award. The award, which LACERS has received annually for the last 19 years, recognizes individual governments that succeed in demonstrating a spirit of transparency and full disclosure in their CAFRs.

This report was prepared by Mikyong Jang, Departmental Chief Accountant IV.

NG:DW:MJ

Attachment: Comprehensive Annual Financial Report

Los Angeles City Employees' Retirement System

A Department of the Municipality of the City of Los Angeles, California

Comprehensive Annual Financial Report

for the Fiscal Year Ended June 30, 2018

LACERS
LOS ANGELES CITY EMPLOYEES'
RETIREMENT SYSTEM

Securing Your Tomorrows

Los Angeles City Employees' Retirement System

(A Department of the Municipality of the City of Los Angeles, California)

Comprehensive Annual Financial Report

For the Fiscal Year Ended June 30, 2018

Issued by
Neil M. Guglielmo
General Manager

PO Box 512218
Los Angeles, CA 90051-0218
www.LACERS.org

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Introduction

202 W. First Street, Suite 500
Los Angeles, CA 90012-4401
(800) 779-8328
TDD (888) 349-3996
www.lacers.org

Letter of Transmittal

December 5, 2018

Dear Members of the Board:

We are pleased to present the Los Angeles City Employees' Retirement System (LACERS) Comprehensive Annual Financial Report (CAFR) for the fiscal year ended June 30, 2018, the System's 81st year of operation. This report is intended to provide a comprehensive review of our financial condition during the fiscal year including the System's audited financial statements, investment performance results, and actuarial valuations for retirement and health benefits.

LACERS History, Participants, and Services

In 1937, the Los Angeles City Charter established LACERS as a retirement trust fund for the exclusive purpose of providing the civilian employees of the City of Los Angeles, a defined benefit retirement plan inclusive of service retirements, disability retirements, and survivor benefits. In 1999, LACERS began administering the retiree health insurance subsidies. All regular, full time, and certified part-time City employees are eligible for LACERS benefits except employees of the Department of Water and Power, and sworn personnel who are members of the Los Angeles Fire and Police Pensions. Today, approximately 26,000 Active Members and 19,000 Retired Members and beneficiaries count on LACERS to provide a lifetime of retirement benefits.

Major Initiatives

LACERS' mission is to establish a trustworthy lifelong relationship serving our Members through reliable and efficient delivery of benefits funded by prudent investment of Plan Assets. To help achieve this, LACERS established a Strategic Plan with the intent of implementing industry best practices in several areas. The LACERS Strategic Plan goals and initiatives for fiscal year 2017-18 are described further below.

Outstanding Customer Service

LACERS places great importance on always delivering a high level of customer service to its Members who seek information and assistance through counseling sessions, retirement planning seminars, and health plan enrollments. Member satisfaction among those attending LACERS' retirement seminars, group counseling sessions, Open Enrollment meetings, Medicare workshops, and "walk-ins" was in the mid to high 90% range.

Accurate and Timely Delivery of Benefits

LACERS' fiduciary responsibility includes providing benefits to system participants and their beneficiaries and assuring prompt delivery of those benefits and related services. LACERS continued an initiative to audit and maintain operational compliance with regulatory requirements; and identified opportunities to reengineer benefit delivery processes for greater efficiency.

Maximize Value and Minimize Costs of Health and Welfare Programs

LACERS strives to offer its Members a complete health benefits package that is cost-effective. Initiatives included testing the marketplace and seeking only the most competitive services and premium rates; reviewing health plan utilization data to identify trends; developing strategies to improve Member care and minimize premium increases; and promoting wellness through the LACERS Well campaign for retired Members.

Achieve Satisfactory Long-Term Risk-Adjusted Investment Returns

Achievement of this goal will help ensure funding to provide plan participants with postemployment benefits and maintain or reduce the City contributions to the System. Main initiatives were to ensure investments were within target of the Asset Allocation Policy and to increase due diligence and regular review efforts of investment managers.

Uphold Good Governance Practices which Affirm Transparency, Accountability, and Fiduciary Duty

LACERS strives to be accountable, transparent, law-abiding, responsive, equitable and inclusive, effective and efficient, and participatory through establishing and maintaining Board Administrative Policies, Board Governance, and Investment Policies.

Maximize Organizational Effectiveness and Efficiency

LACERS is committed to meeting its established goals by making use of its resources to maximize output. LACERS completed a major initiative of replacing the Pension Administration System, successfully going live on March 1, 2018.

Recruit, Mentor, Empower, and Promote a High-Performing Workforce

LACERS strives to hire the best qualified employees and develop them to their full potential. Completed initiatives include maintaining a regular schedule of training and education, and continuing the staff-led Guiding Principles campaign.

Development of a New Strategic Plan

LACERS is in the process of reviewing its existing vision, mission, guiding principles and strategic goals, and developing a new Strategic Plan. The new Strategic Plan, which will reflect ongoing and new initiatives to support current goals, will be introduced and implemented in 2019.

Funding Status and Progress

Annual actuarial valuations are performed by LACERS' consulting actuary to determine the actuarial accrued liability arisen from the benefits promised by the City, among other things. Such liability is expected to be met by LACERS' assets accumulated through City contributions, Member contributions, and investment returns. The funding status, commonly expressed by the term "funded ratio," is calculated by dividing the plan assets, based either on actuarial (smoothed) value or fair value, by the actuarial accrued liabilities. The funded ratio is a snapshot of the relative status of LACERS' assets and liabilities at the end of each reporting year. Determined annually in the actuarial valuation, it reflects changes that affect the assets and liabilities during the reporting year due to investment performance, change in demographics, assumptions, benefit terms, and other factors. Funded ratios are useful when they are looked at over several years to determine trends, and should be viewed in light of the economic situation at each time point. If the ratio is less than 100%, indicating an underfunding condition, then the underfunded portion is paid for by the City systematically over a period no longer than 20 years pursuant to LACERS' funding policy (fiscal year beginning from 2013-14), which targets a funding status of 100% in the long run.

In the June 30, 2018 actuarial valuation, the combined funded ratio, based on the actuarial value of assets, for the Retirement Plan and the Postemployment Health Care Plan has decreased by (1.2)% from a year ago to 71.6%. Individually, the funded ratio, on the same actuarial basis, for the Retirement Plan decreased from 71.4% to 70.1%; and for the Postemployment Health Care Plan, the ratio has decreased from 81.1% to 80.7%. The decrease in the funded ratios coincides with an increase of the Unfunded Actuarial Accrued Liabilities (UAAL) by $742.9 million primarily as a result of the change of demographic assumptions, including the change to generational mortality tables to reflect future mortality improvement, though largely offset for the Postemployment Health Care Plan's actuarial accrued liabilities by lower than expected 2019 renewal premiums payable to the healthcare providers. It is noteworthy that the funded ratio for the Postemployment Health Care Plan maintains a relatively high funding status of being 80.7% funded, while a majority of local governments do not pre-fund their retiree health benefits.

The fair value of LACERS' assets as of June 30, 2018 maintains consistency with the actuarial value of assets, which is determined by the seven-year asset smoothing policy, as gains and losses on investment returns prior to 2018 largely balance out, coupled with an investment return of 7.57% on the actuarial value of assets basis for the 2018 plan year, in excess of the 7.25% assumed rate of return.

Investment Summary

The System established its investment policies in accordance with Section 1106 of the Charter of the City of Los Angeles for the systematic administration of LACERS. The investment policies are designed to achieve the best risk-adjusted investment returns. The System's assets are managed on a total return basis in compliance with the investment policies to produce a total portfolio, long-term, real (above inflation) return of 5.0%. Consequently, prudent risk-taking is warranted within the context of the overall portfolio diversification. The Board implements its risk management policy by monitoring the portfolio's compliance through the adoption of investment policies, guidelines, and procedures for determining the strategic management of investment risk, while allowing sufficient flexibility in capturing investment opportunities, as they may occur, and establishing reasonable risk parameters to ensure prudence and care in the management of the System's assets.

The portfolio consists of investments in U.S. and non-U.S. equities and fixed income, private equity, private real estate, public real assets, and short-term investments. The System's total portfolio was valued at $17.0 billion as of June 30, 2018, an increase of $1.3 billion (8.3%) compared to the prior fiscal year. The portfolio posted a gross of fees return of 9.2% (or a net of fees return of 9.0%) over a one-year period. The total fund outperformed its policy benchmark by 0.60% gross of fees return (or 0.45% net of fees return), and outperformed its actuarial assumed rate of investment return.

The annualized investment returns in detail are presented in the Investment Results on page 67 of the Investment Section. The detail of investment income and loss can be found on pages 20 - 21 of the Financial Section. Other investment related information is summarized in the Investment Section of this report.

Financial Reporting

The financial statements included within this report are the responsibility of LACERS' management and have been prepared in accordance with generally accepted accounting principles in the United States of America (US GAAP) as promulgated or adopted by the Governmental Accounting Standards Board (GASB). A system of internal controls is designed, implemented, and maintained by management, as a means to protect System assets, and to assure the integrity of LACERS' financial statements. Management is confident that its system of internal control, with oversight from LACERS Audit Committee, in tandem with internal audit staff, as well as the annual engagement of an independent external auditing firm to render an opinion on LACERS' financial statements, provide the requisite level of due diligence expected from a governmental pension system. This position is supported by our external auditor, Brown Armstrong Accountancy Corporation, which has audited and expressed an unmodified opinion that LACERS' basic financial statements are free of material misstatement, presented fairly, and in conformity with US GAAP.

Readers of this CAFR are encouraged to review the Management's Discussion and Analysis (MD & A) Section starting on page 15, which provides narrative analysis and highlights of our financial condition and fiscal operations during the reporting period.

Awards and Acknowledgements

GFOA Certificate of Achievement

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to LACERS for its CAFR for the fiscal year ended June 30, 2017. In order to be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized CAFR. This report must satisfy both US GAAP and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year. We believe that this report for the fiscal year ended June 30, 2018, will again meet the requirements of the Certificate of Achievement Program and we are submitting it to the GFOA for consideration of an annual award.

PPCC Standards Award

The Public Pension Coordinating Council presented its Public Pension Standards Award For Funding and Administration to LACERS in recognition of compliance with professional standards for plan funding and administration for the fiscal year ending 2018. To receive this honor, LACERS was assessed to have met the standards in six key areas: Comprehensive Benefit Program, Actuarial Valuation, Independent Audit, External Investments Performance Evaluation, Member Communications, and Funding Adequacy.

Acknowledgements

Lastly, I would like to acknowledge the professional and dedicated staff of the Fiscal Management Unit of LACERS for the preparation of this report. I would also like to express appreciation for the leadership and commitment of the LACERS Commissioners, as well as all other LACERS' staff for their assistance and contributions. Lastly, I would also like to thank our external auditor, Brown Armstrong, and our consulting actuary, Segal Consulting, for their professional assistance in the preparation of this report.

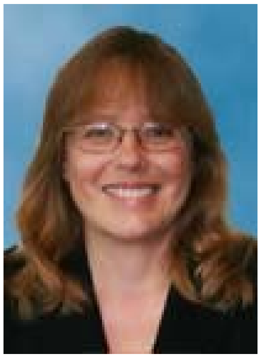
Respectfully Submitted,

Neil M. Guglielmo
General Manager

Mikyong Jang
Chief Accountant

Board of Administration
For the Fiscal Year Ended June 30, 2018

Cynthia M. Ruiz
President
Appointed by the Mayor



Elizabeth L. Greenwood
Vice President
Elected by Active Members

Sandra Lee
Member
Appointed by the Mayor

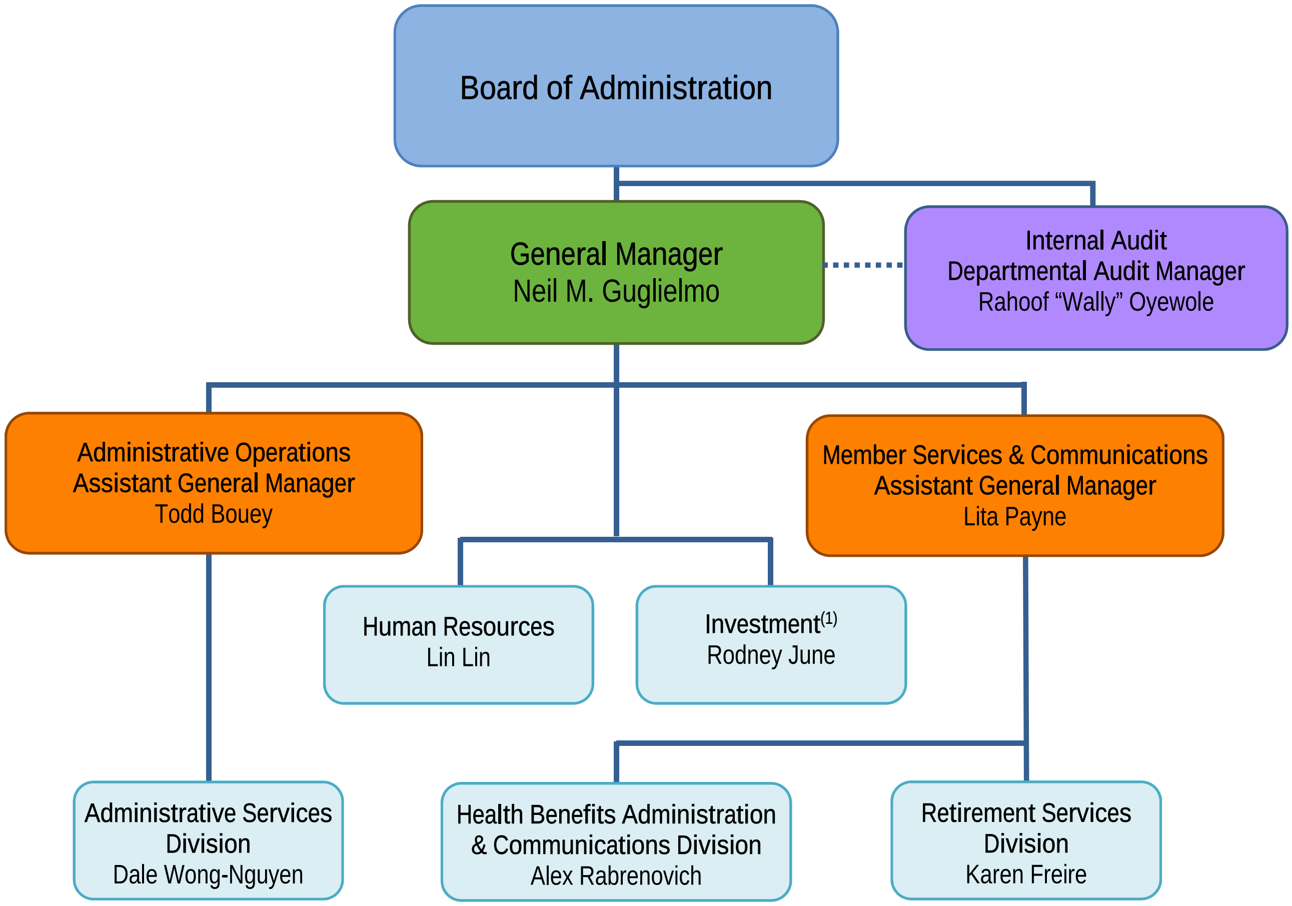
Nilza R. Serrano
Member
Appointed by the Mayor

Sung Won Sohn
Member
Appointed by the Mayor

Michael R. Wilkinson
Member
Elected by Retired Members

Annie Chao
Member
Elected by Active Members

Organization Chart
As of June 30, 2018



(1) Schedules of Fees and Commissions can be found in the Investment Section on page 73, and a list of firms managing the investment portfolio can be found in the Investment Section on pages 75 - 77.

Professional Consultants

Actuary
Segal Consulting

Independent Auditor
Brown Armstrong

Investment Consultants
NEPC
Portfolio Advisors, LLC
The Townsend Group
Wilshire Associates, Inc.

Health & Welfare Consultant
Keenan & Associates

Legal/Fiduciary Counsel
Ice Miller, LLP
Morgan, Lewis & Bockius, LLP
Nossaman, LLP
Steptoe & Johnson, LLP

Pension Administration System Consultants
Levi, Ray and Shoup, Inc.
Linea Solutions

Strategic Planning Consultant
Cortex Applied Research Inc.

Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

Los Angeles City
Employees' Retirement System
California

For its Comprehensive Annual Financial Report for the Fiscal Year Ended

June 30, 2017

Executive Director/CEO

AWARDED 19 CONSECUTIVE YEARS SINCE 1999

Public Pension Coordinating Council

Public Pension Standards Award
For Funding and Administration
2018

Presented to

Los Angeles City Employees' Retirement System (LACERS)

In recognition of meeting professional standards for
plan funding and administration as
set forth in the Public Pension Standards.

Presented by the Public Pension Coordinating Council, a confederation of

National Association of State Retirement Administrators (NASRA)
National Conference on Public Employee Retirement Systems (NCPERS)
National Council on Teacher Retirement (NCTR)

Alan H. Winkle
Program Administrator

AWARDED CONSECUTIVELY SINCE 2013

Financial

BROWN
ARMSTRONG

CERTIFIED
PUBLIC
ACCOUNTANTS

BROWN ARMSTRONG

Certified Public Accountants

INDEPENDENT AUDITOR'S REPORT

Board of Administration
Los Angeles City Employees' Retirement System
Los Angeles, California

Report on the Financial Statements

We have audited the accompanying Retirement Plan and Postemployment Health Care Plan Statement of Fiduciary Net Position of the Los Angeles City Employees' Retirement System (LACERS), a department of the Municipality of the City of Los Angeles, California, as of June 30, 2018, and the related Retirement Plan and Postemployment Health Care Plan Statement of Changes in Fiduciary Net Position for the year then ended, and the related notes to the financial statements, which collectively comprise LACERS basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements 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 financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, 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 financial statements 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 financial statements.

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

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FRESNO OFFICE
10 RIVER PARK PLACE EAST
SUITE 208
FRESNO, CA 93720
TEL 559.476.3592

LAGUNA HILLS OFFICE
23272 MILL CREEK DRIVE
SUITE 255
LAGUNA HILLS, CA 92653
TEL 949.652.5422

STOCKTON OFFICE
1919 GRAND CANAL BLVD
SUITE C6
STOCKTON, CA 95207
TEL 888.565.1040

WWW.BACPAS.COM

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the Retirement Plan and Postemployment Health Care Plan of LACERS as of June 30, 2018, and the changes in fiduciary net position for the year then ended in conformity with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and required supplementary information, as listed in the table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the GASB who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements of LACERS that collectively comprise LACERS basic financial statements. The supplemental schedules, as listed in the table of contents, are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The supplemental schedules are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the financial statements. Such information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used in the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the financial statements as a whole.

The introductory, investment, actuarial and statistical sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

Report on Summarized Comparative Information

We have previously audited LACERS June 30, 2017 financial statements, and our report dated November 21, 2017, expressed an unmodified opinion on those audited financial statements. In our opinion, the summarized comparative information presented herein as of and for the year ended June 30, 2017, is consistent in all material respects, with the audited financial statements from which it has been derived.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated November 27, 2018, on our consideration of LACERS internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering LACERS internal control over financial reporting and compliance.

BROWN ARMSTRONG
ACCOUNTANCY CORPORATION

Brown Armstrong
Accountancy Corporation

Bakersfield, California
November 27, 2018

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Management's Discussion and Analysis

As management of the Los Angeles City Employees' Retirement System (LACERS), we are pleased to provide this overview and analysis of the financial activities of LACERS for the fiscal year ended June 30, 2018. We encourage readers to consider the information presented here in conjunction with additional information included in our letter of transmittal in the Introductory Section of LACERS Comprehensive Annual Financial Report.

Financial Highlights

- The Los Angeles City Employees' Retirement System (LACERS, the Plan, or the System) fiduciary net position as of June 30, 2018 was $16,989,616,000, an increase of $1,300,046,000 or 8.3% over the prior fiscal year.
- The total additions to the fiduciary net position of LACERS, from employer contributions made by the City of Los Angeles (the City), Member contributions, and net investment income, were $2,306,348,000, a 12.4% decrease from the prior fiscal year.
- The employer contributions to the Retirement Plan represented 100% of the Actuarially Determined Contribution of the employer as defined by the Governmental Accounting Standards Board (GASB) Statements No. 67, *Financial Reporting for Pension Plans – an amendment of GASB Statement No. 25*, and No. 68, *Accounting and Financial Reporting for Pensions – an amendment of GASB Statement No. 27*.
- The employer contributions to the Postemployment Health Care Plan represented 100% of the Actuarially Determined Contribution of the employer as defined by GASB Statements No. 74, *Financial Reporting for Postemployment Benefit Plans Other than Pension Plans*, and No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions*.
- Net investment income for this fiscal year was $1,518,879,000, representing an 18.1% decrease compared with an investment income of $1,854,901,000 for the previous reporting period.
- The total deductions from the fiduciary net position were $1,006,302,000, a 6.1% increase from the prior fiscal year, for the payment of retirement and postemployment health care benefits, refunds of Member contributions, and administrative expenses.
- The System's Net Pension Liability (NPL) for the retirement benefits was $5,709,348,000 as of June 30, 2018. NPL, an important measure required by GASB Statement No. 67 to disclose in the financial notes of a pension plan, is the difference between the Total Pension Liability (TPL) and the Plan fiduciary net position. As the Plan fiduciary net position is equal to the market value of the System's assets, NPL is determined on a market value basis, and it fully reflects the Plan's investment performance (9.2% rate of return, gross of fees) of this fiscal year. Compared with the previous fiscal year, the NPL increased by $431,676,000.
- The System's Net Other Postemployment Benefits (OPEB) Plan Liability for the postemployment health care benefits was $580,456,000 as of June 30, 2018. Net OPEB Liability (NOL) is an important measure required by GASB Statement No. 74. NOL is determined on a market value basis, and is the difference between the Total OPEB Liability (TOL) and the Plan fiduciary net position (market value of the System's assets). NOL reflects the Plan's investment performance (9.2% rate of return, gross of fees) for this fiscal year. As compared with the previous fiscal year, the NOL increased by $13,512,000.
- The Plan fiduciary net position as a percentage of TPL for the Retirement Plan, another required disclosure of GASB Statement No. 67, was 71.4%, which is the same as the funded ratio on a market value basis reported in the actuarial valuation for the retirement benefits.
- The Plan fiduciary net position as a percentage of TOL for the Postemployment Health Care Plan, another required disclosure of GASB Statement No. 74, was 82.2%, which is the same as the funded ratio on a market value basis reported in the actuarial valuation for the postemployment health care benefits.

Overview of the Financial Statements

The following discussion and analysis are intended to serve as an introduction to LACERS financial statements and the accompanying notes thereto. The required supplementary information and supplemental schedules provide additional financial data on LACERS operations.

Overview of the Financial Statements (Continued)

Financial Statements

There are two financial statements presented by LACERS. The Statement of Fiduciary Net Position on page 24 gives a snapshot of the account balances at year-end and shows the amount of the fiduciary net position (the difference between the assets plus deferred outflows of resources, and liabilities plus deferred inflows of resources) available to pay future benefits. Over time, increases or decreases in fiduciary net position may serve as a useful indicator of whether the fiduciary net position of LACERS is improving or deteriorating. The Statement of Changes in Fiduciary Net Position on page 25 provides a view of current year additions to, and deductions from, the fiduciary net position.

Notes to the Basic Financial Statements

The notes to the basic financial statements (Notes) provide additional information that is essential for a full understanding of the data provided in the financial statements. The notes to the basic financial statements can be found on pages 26 - 47 of this report.

Required Supplementary Information

In addition to the Management's Discussion and Analysis, other required supplementary information consists of the Schedule of Net Pension Liability, Schedule of Changes in Net Pension Liability and Related Ratios, Schedule of Contribution History, and Schedule of Investment Returns for the Retirement Plan, and the Schedule of Net OPEB Liability, Schedule of Changes in Net OPEB Liability and Related Ratios, Schedule of Contribution History, and Schedule of Investment Returns for the Postemployment Health Care Plan. These schedules and notes primarily present multi-year information as required by the applicable financial reporting standards of GASB Statements No. 67 and No. 74. This required supplementary information can be found on pages 50 - 58 of this report.

Supplemental Schedules

The supplemental schedules, including a Schedule of Administrative Expenses and a Schedule of Investment Fees and Expenses, are presented to provide additional financial information on LACERS operations for the current year. These can be found on pages 60 and 61 of this report.

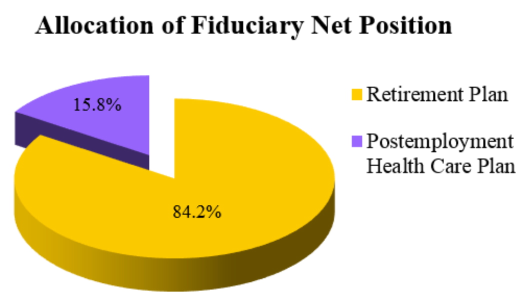
Management's Discussion and Analysis

Financial Analysis

Allocation of Fiduciary Net Position

Fiduciary net position may serve as a useful indicator of a plan's financial position. The total fiduciary net position is allocated between the Retirement Plan and Postemployment Health Care Plan, as required by the existing reporting standards. The following information provides a brief description of the asset allocation between the Retirement Plan and the Postemployment Health Care Plan as of June 30, 2018 (dollars in thousands):

	Fiduciary Net Position	Percent
Retirement Plan	$14,313,245	84.2%
Postemployment Health Care Plan	2,676,371	15.8
Fiduciary Net Position	$16,989,616	100.0%



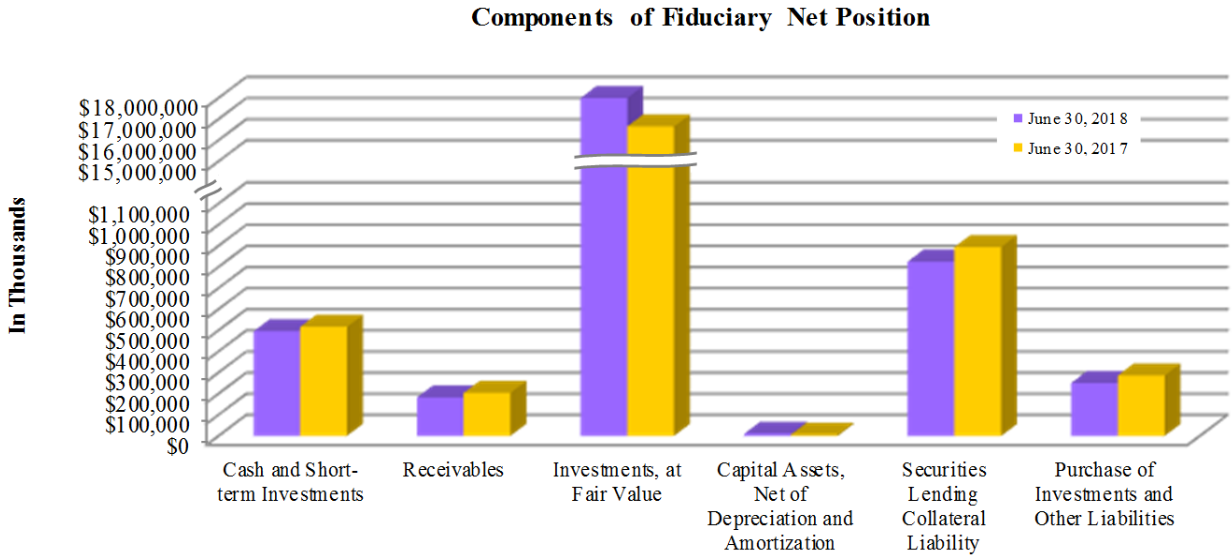
Fiduciary Net Position

The following table and graph detail the components of the fiduciary net position of LACERS as of June 30, 2018 and 2017 (dollars in thousands):

	June 30, 2018	June 30, 2017	Change	
Cash and Short-Term Investments	$ 470,390	$ 491,514	$ (21,124)	(4.3) %
Receivables	157,483	178,907	(21,424)	(12.0)
Investments, at Fair Value	17,357,845	16,122,440	1,235,405	7.7
Capital Assets, Net of Depreciation and Amortization	9,185	6,490	2,695	41.5
Total Assets	17,994,903	16,799,351	1,195,552	7.1
Securities Lending Collateral Liability	795,076	863,691	(68,615)	(7.9)
Purchase of Investments and Other Liabilities	210,211	246,090	(35,879)	(14.6)
Total Liabilities	1,005,287	1,109,781	(104,494)	(9.4)
Fiduciary Net Position Restricted for Pension Benefits and Postemployment Health Care Benefits	$ 16,989,616	$ 15,689,570	$ 1,300,046	8.3 %

Financial Analysis (Continued)

Fiduciary Net Position (Continued)



The majority of LACERS fiduciary net position is contained in its investment portfolio, which consists of cash and short-term investments, receivables, fixed income, equities, and other asset classes. Fiduciary net position increased by $1,300,046,000, or 8.3%, during this fiscal year.

Net Increase (Decrease) in Fiduciary Net Position

The increase in fiduciary net position during the reporting period was the net effect of factors that either added to or deducted from the fiduciary net position. The following table summarizes the changes in fiduciary net position during the report year, as compared with the prior year (dollars in thousands):

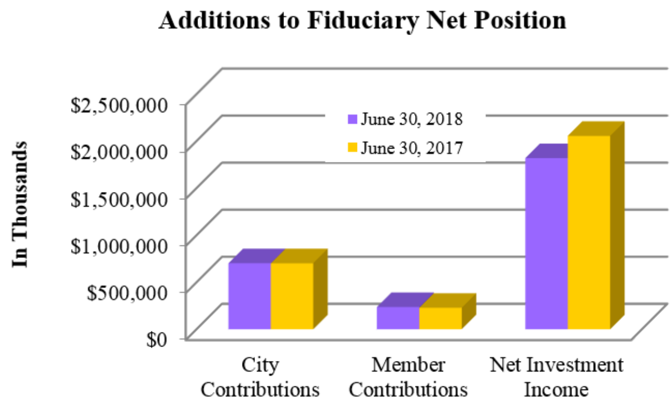
	June 30, 2018	June 30, 2017	Change	
Additions	$ 2,306,348	$ 2,633,394	$ (327,046)	(12.4) %
Deductions	1,006,302	948,883	57,419	6.1
Net Increase in Fiduciary Net Position	1,300,046	1,684,511	(384,465)	(22.8)
Fiduciary Net Position, Beginning of Year	15,689,570	14,005,059	1,684,511	12.0
Fiduciary Net Position, End of Year	$ 16,989,616	$ 15,689,570	$ 1,300,046	8.3 %

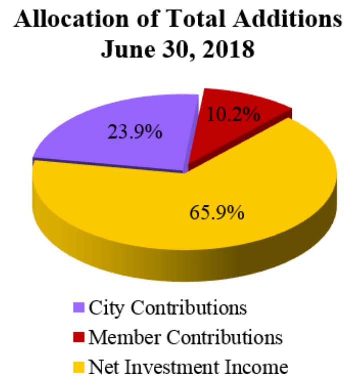
Financial Analysis (Continued)

Net Increase (Decrease) in Fiduciary Net Position – Additions to Fiduciary Net Position

The following table and graph represent the components that make up the additions to fiduciary net position for LACERS for the fiscal years ended June 30, 2018 and 2017 (dollars in thousands):

	June 30, 2018	June 30, 2017	Change
City Contributions	$ 551,247	$ 550,961	0.1 %
Member Contributions	236,222	227,532	3.8
Net Investment Income	1,518,879	1,854,901	(18.1)
Additions to Fiduciary Net Position	$ 2,306,348	$ 2,633,394	(12.4) %





The additions to LACERS fiduciary net position include three main items that constitute the funding sources of LACERS benefits: City Contributions, Member Contributions, and Net Investment Income.

City contributions to the Retirement Plan, the Postemployment Health Care Plan, and the Family Death Benefit Plan were $551,247,000 during the fiscal year. The total increase of $286,000 (or 0.1%) over the prior fiscal year was due to a higher payroll base (approximately 4.3% increase in payroll). The total City contributions include a true-up credit adjustment, a reduction from the advance payment of $23,746,000 to reconcile the difference of the City's contributions based on projected payroll against actual payroll. This true-up amount, which included accrued interest at 7.25%, was recognized as liability as of the end of the reporting period. After reflecting the true-up adjustment, the aggregate employer contribution rate for this fiscal year was 26.79% (21.88% for the Retirement Plan and 4.91% for the Postemployment Health Care Plan), which is 1.13% lower than the prior fiscal year at 27.92%. The actual contribution to the Retirement Plan in the amount of $450,195,000 was equal to 100% of the Actuarially Determined Contribution (ADC) of the employer, as defined by GASB Statement No. 67. The actual contribution to the Postemployment Health Care Plan in the amount of $100,909,000 was equal to 100% of the Actuarially Determined Contribution of the employer, as defined by GASB Statement No. 74.

Financial Analysis (Continued)

Net Increase (Decrease) in Fiduciary Net Position – Additions to Fiduciary Net Position (Continued)

In fiscal year 2017-18, Member contributions were $236,222,000, which was $8,690,000 or 3.8% greater than the prior year. The primary cause of the increased contributions was the increase in number of Members and their salaries during the fiscal year.

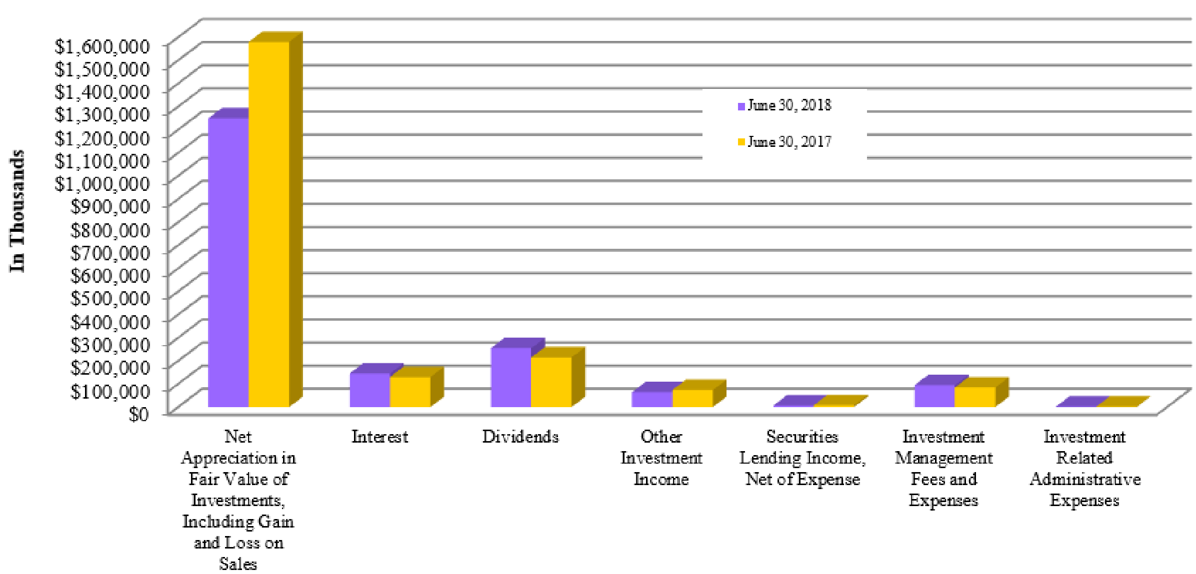
The net investment income was $1,518,879,000, which included $1,206,714,000 of net appreciation in the fair value of investments. This is discussed in more detail in the next section.

Investment Income

The following table and graph present the detail of investment income, net of investment management fees and expenses for the fiscal years ended June 30, 2018 and 2017 (dollars in thousands):

	June 30, 2018	June 30, 2017	Change
Net Appreciation in Fair Value of Investments, Including Gain and Loss on Sales	$ 1,206,714	$ 1,556,934	(22.5) %
Interest	107,942	102,138	5.7
Dividends	220,106	195,794	12.4
Other Investment Income	55,094	64,037	(14.0)
Securities Lending Income, Net of Expense	6,959	7,842	(11.3)
Sub-Total	1,596,815	1,926,745	(17.1)
Less: Investment Management Fees and Expenses	(76,213)	(69,969)	8.9
Investment Related Administrative Expenses	(1,723)	(1,875)	(8.1)
Net Investment Income	$ 1,518,879	$ 1,854,901	(18.1) %

Investment Income and Expenses



Financial Analysis (Continued)

Investment Income (Continued)

The net investment income for the current fiscal year was $1,518,879,000, as compared with the income of $1,854,901,000 for the previous fiscal year (18.1% decrease). The primary cause of the decrease of investment income was a lower net appreciation, including gain and loss on sales, in the fair value of the investments of $1,206,714,000 as compared with the previous fiscal year's amount of $1,556,934,000. Major U.S. and non-U.S. equity indices achieved strong returns during the fiscal year. The Russell 3000 Index, which tracks U.S. broad market equities, returned 14.8%; the Standard & Poor's 500 Index, a gauge of U.S. large capitalization equities, returned 14.4%. In the non-U.S. markets, the MSCI World Ex-U.S. Index, which tracks non-U.S. equities in developed markets, returned 7.3%; MSCI Emerging Markets Index returned 8.2%. With the passage of Assembly Bill No. 2833 in January 2017, private equity and real estate funds have provided more detailed disclosure on fees, expenses, and carried interest. The net appreciation as reported reflects a deduction for carried interest in the amount of $48,196,000, which represents a profit share that the general partners of these funds received as a compensation after the performance of the funds achieved agreed-upon return level.

Interest income derived from bonds and other fixed income securities increased by $5,804,000 (5.7%), which was attributed primarily to an increase in LACERS fixed income holdings relative to the previous fiscal year.

Dividend income derived from equities increased by $24,312,000 (12.4%) due to an increase in public equity holdings relative to the previous fiscal year.

Other investment income, primarily derived from private equity and private real estate partnership investments, decreased by $8,943,000 (14.0%) to $55,094,000 in the current fiscal year. This decrease was attributed to a slowdown of partnership distributions during the current fiscal year.

LACERS earns additional investment income by lending the securities to borrowers through its custodian bank. The borrowers provide cash or non-cash collateral to LACERS custodian bank. To earn income for LACERS, the custodian bank invests the cash collateral pledged by borrowers on behalf of LACERS in short-term fixed-income securities. LACERS also generates income from fees paid by borrowers that pledge non-cash collateral. In the reporting year, LACERS securities lending income (net of expense) decreased by $883,000 (11.3%) from a year ago due to lower borrower demand for securities held in the LACERS portfolio.

Investment management fees, expenses, and investment related administrative expenses increased by $6,092,000 (8.5%) from the prior fiscal year. This increase corresponded with the increase in the fair value of LACERS investments over the fiscal year.

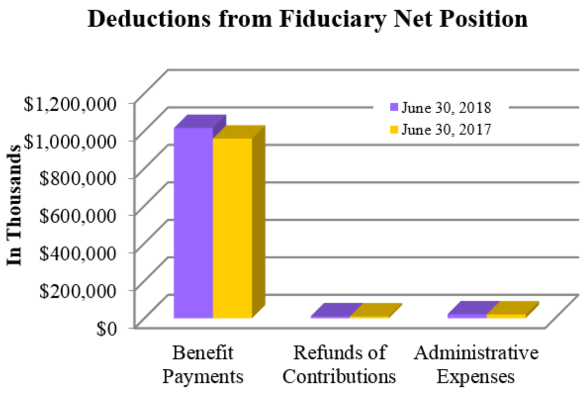
Net Increase (Decrease) in Fiduciary Net Position – Deductions from Fiduciary Net Position

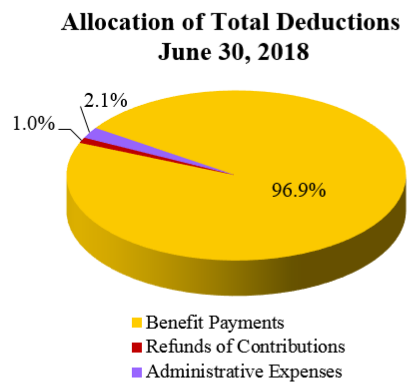
The following table and graphs provide information related to the deductions from fiduciary net position for the fiscal years ended June 30, 2018 and 2017 (dollars in thousands):

	June 30, 2018	June 30, 2017	Change
Benefit Payments	$ 975,112	$ 918,837	6.1%
Refunds of Contributions	10,412	9,803	6.2
Administrative Expenses	20,778	20,243	2.6
Deductions from Fiduciary Net Position	$ 1,006,302	$ 948,883	6.1%

Financial Analysis (Continued)

Net Increase (Decrease) in Fiduciary Net Position – Deductions from Fiduciary Net Position (Continued)





LACERS deductions from fiduciary net position in the reporting period can be summarized as Benefit Payments, Refunds of Contributions, and Administrative Expenses. These deductions represent the types of benefit delivery operations undertaken by LACERS and the costs associated with them. Total deductions increased by $57,419,000 or 6.1% from the prior fiscal year.

Compared to the prior fiscal year, benefit payments increased by $56,275,000 or 6.1%. The benefit payments for the Retirement Plan increased by $47,811,000 (6.0%) mainly due to the annual cost of living adjustments (COLA) (approximately 1.9% increase on average with a maximum of 3.0%); an increased number of retirees and beneficiaries; the average retirement allowance of newly retired Members being higher than those of the deceased Members who were removed from the retirement payroll; and a $1,335,000 one-time payment to the Los Angeles Fire and Police Pension System (LAFPP) representing Retirement Plan benefits of 42 Airport Peace Officers who opted to transfer to LAFPP in January 2018 (refer to Note 2 – Retirement Plan Description on pages 28 - 29). Payments for Postemployment Health Care Plan benefits also increased by $8,465,000 (7.1%). This increase was mainly due to the increase of the maximum health insurance subsidy from $1,737 to $1,791 per month based on the higher renewed medical premium rates for the calendar year 2018; the higher basic Medicare Part B premium reimbursement for the eligible Members; the increased number of retired Members and their dependents eligible for medical subsidy; and a $517,000 one-time payment to LAFPP for the Postemployment Health Care Plan benefits of 42 Airport Peace Officers who opted to transfer to LAFPP. However, the increase caused by these factors was lessened by the one-time defrayal of $4,010,000 from a postemployment health care provider for the return of excess premium stabilization reserves during this reporting period.

The refunds of Member contributions increased by $609,000 (6.2%) from the prior fiscal year's $9,803,000 mainly due to the refunds of $1,170,000 Member contributions of 42 Airport Peace Officers who transferred to the LAFPP (refer to Note 2 – Retirement Plan Description on pages 28 - 29).

LACERS administrative expenses increased by $535,000 or 2.6% from the prior fiscal year. This increase was primarily due to salary factors such as granted COLA increases and LACERS share of employer contributions to employee retirement and OPEB benefits. In addition, due to the amortization of capitalized costs of the LACERS Pension Administration System, much higher depreciation expenses were reported in this year's administrative expenses.

Requests for Information

This financial report is designed to provide a general overview of LACERS finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to:

LACERS
Fiscal Management Section
PO Box 512218
Los Angeles, CA 90051-0218

BASIC FINANCIAL STATEMENTS

Statement of Fiduciary Net Position
Retirement Plan and Postemployment Health Care Plan
As of June 30, 2018 with Comparative Totals
(In Thousands)

	Retirement Plan	Postemployment Health Care Plan	2018 Total	2017 Total
Assets				
Cash and Short-Term Investments	$ 396,290	$ 74,100	$ 470,390	$ 491,514
Receivables				
Accrued Investment Income	48,220	9,017	57,237	52,777
Proceeds from Sales of Investments	72,672	13,589	86,261	112,601
Other	11,782	2,203	13,985	13,529
Total Receivables	132,674	24,809	157,483	178,907
Investments, at Fair Value				
U.S. Government Obligations	988,611	184,856	1,173,467	946,935
Municipal Bonds	2,129	398	2,527	4,280
Domestic Corporate Bonds	700,560	130,995	831,555	921,082
International Bonds	460,764	86,156	546,920	561,188
Other Fixed Income	871,072	162,878	1,033,950	868,775
Bank Loans	4,547	850	5,397	6,361
Opportunistic Debts	92,614	17,317	109,931	90,404
Domestic Stocks	3,963,597	741,136	4,704,733	4,216,604
International Stocks	4,278,603	800,038	5,078,641	4,803,077
Mortgages	357,725	66,889	424,614	390,496
Government Agencies	34,593	6,469	41,062	33,690
Derivative Instruments	843	157	1,000	2,360
Real Estate	675,353	126,281	801,634	834,848
Private Equity	1,522,628	284,710	1,807,338	1,578,649
Securities Lending Collateral	669,828	125,248	795,076	863,691
Total Investments	14,623,467	2,734,378	17,357,845	16,122,440
Capital Assets				
Furniture, Computer Hardware and Software (Net of Depreciation and Amortization)	7,738	1,447	9,185	6,490
Total Assets	15,160,169	2,834,734	17,994,903	16,799,351
Liabilities				
Accounts Payable and Accrued Expenses	34,513	6,454	40,967	37,588
Accrued Investment Expenses	8,808	1,647	10,455	10,779
Purchases of Investments	133,775	25,014	158,789	197,723
Securities Lending Collateral	669,828	125,248	795,076	863,691
Total Liabilities	846,924	158,363	1,005,287	1,109,781
Fiduciary Net Position Restricted for Pension Benefits and Postemployment Health Care Benefits	**$ 14,313,245**	**$ 2,676,371**	**$ 16,989,616**	**$ 15,689,570**

The accompanying notes are an integral part of these financial statements.

Statement of Changes in Fiduciary Net Position
Retirement Plan and Postemployment Health Care Plan
For the Fiscal Year Ended June 30, 2018 with Comparative Totals
(In Thousands)

	Retirement Plan	Postemployment Health Care Plan	2018 Total	2017 Total
Additions				
Contributions				
City Contributions	$ 450,338	$ 100,909	$ 551,247	$ 550,961
Member Contributions	236,222	-	236,222	227,532
Total Contributions	686,560	100,909	787,469	778,493
Investment Income				
Net Appreciation in Fair Value of Investments, Including Gain and Loss on Sales	986,069	220,645	1,206,714	1,556,934
Interest	90,593	17,349	107,942	102,138
Dividends	184,730	35,376	220,106	195,794
Other Investment Income	46,239	8,855	55,094	64,037
Securities Lending Income	6,870	1,315	8,185	9,225
Less: Securities Lending Expense	(1,002)	(224)	(1,226)	(1,383)
Sub-Total	1,313,499	283,316	1,596,815	1,926,745
Less: Investment Management Fees and Expenses	(62,277)	(13,936)	(76,213)	(69,969)
Investment Related Administrative Expenses	(1,408)	(315)	(1,723)	(1,875)
Net Investment Income	1,249,814	269,065	1,518,879	1,854,901
Total Additions	1,936,374	369,974	2,306,348	2,633,394
Deductions				
Benefit Payments	847,031	128,081	975,112	918,837
Refunds of Contributions	10,412	-	10,412	9,803
Administrative Expenses	16,394	4,384	20,778	20,243
Total Deductions	873,837	132,465	1,006,302	948,883
Net Increase in Fiduciary Net Position	1,062,537	237,509	1,300,046	1,684,511
Fiduciary Net Position Restricted for Pension Benefits and Postemployment Health Care Benefits				
Beginning of Year	13,250,708	2,438,862	15,689,570	14,005,059
End of Year	**$ 14,313,245**	**$ 2,676,371**	**$ 16,989,616**	**$ 15,689,570**

The accompanying notes are an integral part of these financial statements.

1. Description of LACERS and Significant Accounting Policies

General Description

The Los Angeles City Employees' Retirement System (LACERS, the Plan, or the System) 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. 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 City Council. Two members shall be active employee Members of the System elected by active employee Members. One shall be a retired Member of the System elected by retired Members of the System. Elected Board members serve five-year terms in office, with no term limits. The System is a Department of the Municipality of the City of Los Angeles (the City). The System's financial statements are included in the City of Los Angeles Annual Financial Report as a pension trust fund.

The System operates a single-employer defined benefit plan (the Retirement Plan) and a single-employer Postemployment Health Care Plan. Benefits and benefit changes are established by ordinance and approved by the City Council and the Mayor. A description of each plan is located in Note 2 and Note 3 on pages 28 - 37 of this report. All Notes to the Basic Financial Statements apply to both plans unless indicated otherwise.

Members who entered the System prior to February 21, 2016 are Tier 1 Members of LACERS. On or after February 21, 2016, new Members become Members of LACERS Tier 3 (refer to Note 2 – Retirement Plan Description on pages 29 - 30, and Note 3 – Postemployment Health Care Plan Description on page 33 for each tier's eligibility requirements and benefits provided).

Basis of Accounting and Presentation

The financial statements have been prepared in accordance with the accounting principles generally accepted in the United States of America (US GAAP) as outlined by the Governmental Accounting Standards Board (GASB). The financial statements are maintained on the accrual basis of accounting. Contributions from the employer and Members were recognized when due pursuant to formal commitments and contractual requirements. Benefits, refunds, and other expenses are recognized when due and payable. The accompanying financial statements include information from the prior year summarized for comparative purpose only. Such information does not include sufficient detail to constitute a presentation in accordance with US GAAP.

Investments

Investment Policies

Funds of the System are invested pursuant to the System's investment policy, established by the Board, in compliance with Article XI Section 1106(d) of the City Charter. The System has a long-term investment horizon, and utilizes an asset allocation that encompasses a strategic, long run perspective of capital markets. The System's investment portfolio is composed of domestic and international equities, domestic and international bonds, bank loans, derivative instruments, real assets, private equity, and short-term investments. During the reporting period, there were no significant investment policy changes.

As of June 30, 2018, the Board's adopted asset allocation policy was as follows:

Asset Class	Target Allocation
Domestic and International Equities	46.00%
Domestic and International Bonds	13.75
Private Equity	14.00
Real Assets	13.00
Short-Term Investments	1.00
Credit Opportunities	12.25
Total	100.00%

Fair Value of Investments

Securities traded on national or international exchanges are valued at the last reported sales price at the current exchange rates. Short-term investments, bonds, bank loans, stocks, and private equities are reported at fair value. The fair values of real estate investment funds are provided by the individual real estate fund managers based on periodic appraisals, in the form of either annual in-house appraisals or longer-term appraisals by outside professionals, in accordance with industry practice. The fair value determined as such is also reviewed and evaluated by the Board's real estate consultant. The private equity funds ("partnership investment"), which are managed by third party investment managers, are valued on a quarterly and/or annual basis at their net asset value as reported by the investment managers under US GAAP. US GAAP requires that assets be reported at fair value in accordance with Accounting Standards Codification Topic 820 – *Fair Value Measurement and Disclosures.* The fair values of derivative instruments are determined using available market

1. Description of LACERS and Significant Accounting Policies (Continued)

Investments (Continued)

information. Debt rewrites are valued based on yields currently available on comparable securities of issuers with similar credit ratings. LACERS investment strategy, as it relates to the debt portfolio, is mainly to achieve market appreciation and not to hold bonds to their maturities.

The provisions of the GASB Statement No. 72, *Fair Value Measurement and Application*, require investments to be measured at fair value as well as to classify the inputs used to determine fair value based on a three-level fair value hierarchy. This information is presented in Note 6 on pages 42 - 44.

Investment transactions are accounted for on the date the securities are purchased or sold (trade date). Unsettled investment trades as of fiscal year-end are reported in the financial statements on an accrual basis. The corresponding proceeds due from sales are reported on the Statement of Fiduciary Net Position under Receivables and labeled as Proceeds from Sales of Investments, and amounts payable for purchases are reported under (Current) Liabilities and labeled as Purchases of Investments. Dividend income is recorded on the ex-dividend date. Interest income is reported at the stated interest rate as earned, and any premiums or discounts on debt securities are not amortized. The calculation of realized gains and losses is independent of the calculation of the net change in the fair value of LACERS pension plan investment. Realized gains and losses on investments that had been held in more than one reporting period and sold in the current period were included as a change in the fair value reported in the prior period(s) and the current period.

For the future contracts, an initial margin is required to open a position and maintain the collateral requirement until the position is closed. LACERS reports the collateral for the future contracts in the short-term investments.

Concentrations

The investment portfolio as of June 30, 2018, contained no concentration of investments in any one entity that represented 5% or more of the total investment portfolio.

Rate of Return on Investments

For the fiscal year ended June 30, 2018, the aggregate annual money-weighted rate of return for the Retirement Plan and the Postemployment Health Care Plan on LACERS investments, net of investment expenses, was 9.55%.

The money-weighted rate of return expresses investment performance, net of investment expenses, adjusted for the changing amounts actually invested. Separate schedules for the money-weighted rate of return for Retirement Plan and Postemployment Health Care Plan are presented in the Required Supplementary Information (RSI) on pages 53 and 58, respectively.

Receivables

As of June 30, 2018, LACERS held no long-term contracts for contributions receivable from the City.

Capital Assets

Prior to July 1, 2001, purchases of capital assets, consisting primarily of office furniture and computer equipment, were recorded and expensed in the year acquired. Effective July 1, 2001, these purchases were capitalized upon acquisition if the cost of purchase was $5,000 or more, and depreciated over five years using the straight-line method.

In order to comply with the requirements of GASB Statement No. 51, *Accounting and Financial Reporting for Intangible Assets*, certain costs for developing LACERS new Pension Administration System (PAS), a customized software solution critical to LACERS core operations, had been capitalized. The total capitalized cost for the PAS project up to its completion in February 2018 was $9,098,000, and it will be amortized over 15 years using the straight-line method.

Administrative Expenses

All administrative expenses are funded from LACERS fiduciary net position, which represents accumulated investment earnings and contributions from the City and the Members net of payments.

Reserves

As provided in the Los Angeles City Charter, LACERS is maintained on a reserve basis, determined in accordance with recognized actuarial methods. The Los Angeles City Charter establishes reserves for the following:

Reserves for the Retirement Plan

Member Contributions (Mandatory) – To provide for individual accounts of Members consisting of Active Member mandatory contributions to the Retirement Plan and interest credited to Members' accounts, less refunds of Members contributions and transfers to the Annuity reserve.

1. Description of LACERS and Significant Accounting Policies (Continued)

Reserves (Continued)

Reserves for the Retirement Plan (Continued)

Member Contributions (Voluntary) – To provide for individual accounts of Members participating in the larger annuity program of Active Member voluntary contributions and interest/investment return credited to Members' accounts, less refunds of Member contributions (voluntary) and transfers to the Larger Annuity reserve.

Basic Pensions – To provide for the City's guaranteed portion of retirement benefits consisting of City contributions; investment earnings (losses) including net appreciation (depreciation) in fair value of investments; less payments to retired Members.

Annuity – To provide for the Members' share of retirement benefits consisting of Members' mandatory contribution balances transferred at retirement; investment earnings (losses) excluding net appreciation (depreciation) in fair value of investments; less payments to retired Members.

Larger Annuity – To provide for the Larger Annuity benefit consisting of Members' voluntary contribution balances transferred at retirement including Internal Revenue Service (IRS) Section 457 deferred compensation and other rollovers; investment earnings (losses) including net appreciation (depreciation) in fair value of investments; less payments to participating retired Members.

Family Death Benefit Plan (FDBP) – To pay benefits under the Family Death Benefit Plan administered by LACERS consisting of Active Member voluntary contributions; matching City contributions; and investment earnings (losses) including net appreciation (depreciation) in fair value of investments; less payments to beneficiaries.

Reserve for the Postemployment Health Care Plan

To provide health care benefits for retirees consisting of City contributions; investment earnings (losses) including net appreciation (depreciation) in fair value of investments; less payments to insurance providers and reimbursements to retired Members.

Reserve balances as of June 30, 2018, were as follows (in thousands):

Reserves for the Retirement Plan		
Member Contributions:		
- Mandatory	$ 2,391,394	
- Voluntary	6,986	
Basic Pensions	11,311,879	
Annuity	531,958	
Larger Annuity	54,407	
FDBP	16,621	$ 14,313,245
Reserve for the Postemployment Health Care Plan		2,676,371
Total Reserves		$ 16,989,616

Estimates

The preparation of the financial statements in conformity with US GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting years. Actual results could differ from those estimates.

2. Retirement Plan Description

Plan Administration and Membership

LACERS administers a defined benefit pension plan that provides for service and disability retirement benefits, as well as death benefits.

The Retirement Plan 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, elected officials who elected to participate in an alternative Defined Contribution Plan, certain Port Police officers of the Harbor, and certain Airport Peace Officers of the Airports who elected to opt out of LACERS. Upon transferring all active Tier 2 Members to Tier 1 as of February 21, 2016, Membership to Tier 1 is now closed to new entrants unless a Member meets one of the exceptions allowed in the Ordinance (No. 184134). Eligible employees hired on or after February 21, 2016 become Members of Tier 3.

2. Retirement Plan Description (Continued)

Plan Administration and Membership (Continued)

As of June 30, 2018, the components of LACERS membership in both tiers (Tier 1 and Tier 3) were as follows:

Active:	
Vested	18,460
Non-vested	7,582
	26,042
Inactive:	
Non-vested	5,158
Terminated Entitled to Benefits, Not Yet Receiving Benefits	2,870
Retired	19,379
Total	53,449

Members of LACERS have a vested right to their own contributions and accumulated interest posted to their accounts. Generally, after five years of employment, Members are eligible for future retirement benefits, which increase with length of service. If a Member who has five or more years of continuous City service terminates employment, the Member has the option of receiving retirement benefits when eligible or having his or her contributions and accumulated interest refunded. Benefits are based upon age, length of service, and compensation.

Eligibility Requirement and Benefits Provided

Tier 1

Plan Members are eligible to retire with unreduced benefits if they have 10 or more years of continuous City service at age 60, or at least 30 years of City service at age 55, or with any years of City service at age 70 or older. Plan Members also are eligible to retire with age-based reduced benefits after reaching age 55 with 10 or more years of continuous City service, or at any age with 30 or more years of City service. Full (unreduced) retirement benefits are determined as 2.16% of the Member's average monthly pensionable salary during the Member's last 12 months of service, or during any other 12 consecutive months of service designated by the Member, multiplied by the Member's years of service credit. Plan Members with five years of continuous service are eligible for disability retirement, and the benefits are determined as 1/70 of the Member's final average monthly salary for each year of service or 1/3 of the Member's final average monthly salary, if greater. Upon an active Member's death, a refund of the Member's contributions and, depending on the Member's years of service, a limited pension benefit equal to 50% of monthly salary may be paid up to 12 months. Or, if such Member was eligible to retire, survivor benefits may be paid to an eligible spouse or qualified domestic partner. Upon a retired Member's death, a $2,500 funeral allowance is paid, and a modified or unmodified allowance is continued to an eligible spouse or qualified domestic partner.

Tier 1 – Enhanced Benefits

In November 2016, voters approved a ballot measure resulting in approximately 550 sworn Airport peace officers provided an election to opt-out of the LACERS Plan and transfer to the Los Angeles Fire and Police Pension (LAFPP) Plan as its Tier 6 Members.

On March 28, 2017, the City Council adopted an ordinance (No. 184853) to amend the Los Angeles Administrative Code (LAAC) authorizing certain sworn Airport Peace Officers (APO) at LACERS to elect to transfer into Tier 6 of LAFPP Plan or to remain in LACERS Plan with enhanced benefits. All new APO hired after that date would be enrolled in LAFPP Tier 6. Under the ordinance, APO Members who elect to remain in LACERS would be Tier 1 Members, and be eligible for enhanced benefits including more favorable disability benefits, death benefits, and a higher retirement factor of 2.30% (versus 2.16% for all other Tier 1 Members), contingent upon a mandatory additional contribution payment of $5,700 required by LAAC Section 4.1002(e)(2) to LACERS before January 8, 2019, or prior to the Member's retirement date, whichever is earlier.

On January 7, 2018, the enhanced benefits became effective, with 503 APO Members electing to remain Members of LACERS and 42 APO Members transferring to LAFPP. As of June 30, 2018, 116 APO Members paid their mandatory additional contribution of $5,700, inclusive of 31 APO Members who retired with the enhanced benefits.

Tier 3

Plan Members are eligible to retire with unreduced benefits if they have at least 10 or more years of City service at age 60 or at least 30 years of City service at age 55, provided that five years of service must be continuous. Full unreduced retirement benefits at age 60 with 10 years of City service are determined with a 1.5% retirement factor. Plan Members also are eligible to retire with an age-based reduced benefit before reaching age 60 with 30 or more years of City service with a retirement factor of 2.0%. If the Member is age 55 or older with 30 years of service at the time of retirement, his or her retirement

2. Retirement Plan Description (Continued)

Eligibility Requirement and Benefits Provided (Continued)

allowance will not be subject to reduction on account of age. However, if the Member is younger than age 55 with 30 years of service at the time of retirement, his or her retirement allowance will be reduced by the applicable early retirement reduction factor. In addition, the System also provides Tier 3 Members enhanced retirement benefits with a 2.0% retirement factor if the Member retires at age 63 with at least 10 years of service, or a retirement factor of 2.1% if the Member retires at age 63 with 30 years of service. Tier 3 retirement benefits are determined by multiplying the Member's retirement factor (1.5% - 2.1%), with the Member's Final Average Compensation (FAC) based on the Member's pensionable salary for the last 36 months or any other 36 consecutive months designated by the Member, and by the Member's years of service credit (SC) as follows:

Age at Retirement	Required Years of Service	Retirement Benefit(1)
Under 55	30 Years	2.0% x FAC x Yrs. of SC(2)
55 and Over	30 Years	2.0% x FAC x Yrs. of SC
60 and Over	10 Years	1.5% x FAC x Yrs. of SC
63 and Over	10 Years	2.0% x FAC x Yrs. of SC
63 and Over	30 Years	2.1% x FAC x Yrs. of SC

(1) Retirement allowance may not exceed 80% of final compensation except when benefit is based solely on the annuity component funded by the Member's contributions.

(2) A reduction factor will be applied based on age at retirement.

Plan Members with five years of continuous service are eligible for disability retirement, and the benefits are determined as 1/70 of the Member's final average monthly salary for each year of service or 1/3 of the Member's final average monthly salary, if greater. Upon an active Member's death, a refund of the Member's contributions and, depending on the Member's years of service, a limited pension benefit equal to 50% of monthly salary may be paid up to 12 months. Or, if such Member was eligible to retire, survivor benefits may be paid to an eligible spouse or qualified domestic partner. Upon a retired Member's death, a $2,500 funeral allowance is paid, and a modified or unmodified allowance is continued to an eligible spouse or qualified domestic partner.

There were no Tier 3 Members who retired during this reporting period.

Cost of Living Adjustment

Retirement allowances are indexed annually for inflation. The Board has authority to determine, no later than May 1st of each year, the average annual percentage change in the Consumer Price Index (CPI) for the purpose of providing a Cost of Living Adjustment (COLA) to the benefits of eligible Members and beneficiaries in July. The adjustment is based on the prior year's change of Los Angeles area CPI subject to a maximum of 3.0% for Tier 1 Members or 2.0% for Tier 3 Members. For Tier 1 Members, the COLA percentage greater than 3.0% is banked for future use.

Employer Contributions

The Los Angeles City Charter Sections 1158 and 1160 provide for periodic actuarially-determined employer contribution rates that, expressed as percentages of annual covered payroll, are sufficient to accumulate the required assets to pay benefits when due. For the fiscal year ended June 30, 2018, the actuarially-determined aggregate employer contribution rate to the Retirement Plan by the City was 22.21% of projected payroll, based on the June 30, 2016 actuarial valuation. Upon closing the fiscal year 2017-18, LACERS re-calculated the employer contribution rate using actual payroll incurred during the fiscal year, which was smaller than projected covered payroll used by the City to make the advance payment on July 15, 2017. As a result, employer contributions received for the Retirement Plan were $19,980,000 more than required, and this amount was credited to the employer toward employer contributions for fiscal year 2018-19. Based on actual payroll, the effective rate of employer contribution for Retirement Plan was 21.88% for fiscal year 2017-18.

Member Contributions

Tier 1

The current contribution rate for Tier 1 Members is 11% of their pensionable salary including: 1) a 1% increase in the Member contribution rate pursuant to 2009 Early Retirement Incentive Program (ERIP) ordinance for all employees for a period of 15 years (or until the ERIP Cost obligation is fully recovered, whichever comes first); and 2) 4% additional contributions in exchange for a vested right to future increases in the maximum retiree medical subsidy pursuant to a 2011 City Council ordinance.

2. Retirement Plan Description (Continued)

Member Contributions (Continued)

Tier 3

The contribution rate for Tier 3 Members is 11% of their pensionable salary including 4% additional contributions in exchange for a vested right to future increases in the maximum retiree medical subsidy. Unlike Tier 1, Tier 3 Members do not pay ERIP contribution, therefore, Tier 3 Members' contribution rate will not drop down when Tier 1 Members cease to pay the 1% ERIP contribution.

Net Pension Liability

In calculating the Plan's net pension liability, the total pension liability and the Plan fiduciary net position exclude amounts associated with Family Death and Larger Annuity Benefits. As of June 30, 2018, the components of the net pension liability were as follows (in thousands):

Total Pension Liability	$ 19,944,578
Plan Fiduciary Net Position [(1)]	14,235,230
Plan's Net Pension Liability	$ 5,709,348
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	71.4%

(1) Plan fiduciary net position was $14,313,245,000 as of June 30, 2018 without excluding amounts associated with Family Death and Larger Annuity Benefits.

Significant Assumptions

Projections of benefits for financial reporting purposes are based on the types of benefits provided to active, inactive, and retired Members at the time of each valuation, including expected future COLAs. The attribution method and significant assumptions used in the valuation year of June 30, 2018, are summarized below:

Valuation Date	June 30, 2018
Actuarial Cost Method	Entry Age Method – assuming a closed group (individual basis).
Amortization Method	Level Percent of Payroll
Actuarial Assumptions:	
Date of Experience Study	June 30, 2017 (July 1, 2014 through June 30, 2017)
Long-Term Expected Rate of Return	7.25%
Inflation	3.00%
Real Across-the-Board Salary Increase	0.50%
Projected Salary Increases	Ranges from 3.90% to 10.00% based on years of service, including inflation assumption at 3.00% and the real across-the-board salary increase assumption of 0.50%.
Annual COLAs	3.00% maximum for Tier 1 and 2.00% maximum for Tier 3.
Mortality Table for Retirees and Beneficiaries	Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table (separate tables for males and females) projected generationally with the two-dimensional mortality improvement scale MP-2017.
Mortality Table for Disabled Retirees	Headcount-Weighted RP-2014 Disabled Retiree Mortality Table (separate tables for males and females) projected generationally with the two-dimensional mortality improvement scale MP-2017.
Percent Married / Domestic Partner	76% of male participants and 50% of female participants are assumed to be married or have a qualified domestic partner.
Spouse Age Difference	Male retirees are assumed to be three years older than their female spouses. Female retirees are assumed to be two years younger than their male spouses.

2. Retirement Plan Description (Continued)

Net Pension Liability (Continued)

Discount Rate

The discount rate used to measure the total pension liability was 7.25% as of June 30, 2018 and June 30, 2017.

The projection of cash flows used to determine the discount rate assumed plan Member contributions will be made at the current contribution rates 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 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 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, 2018 and June 30, 2017.

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 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, are summarized in the following table. These values were used in the derivation of the long-term expected investment rate of return assumption for the actuarial valuation as of June 30, 2018.

Asset Class	Target Allocation	Arithmetic Long-Term Expected Real Rate of Return
U.S. Large Cap Equity	14.00%	5.3%
U.S. Small Cap Equity	5.00	6.1
Developed Int'l Large Cap Equity	17.00	6.7
Developed Int'l Small Cap Equity	3.00	7.1
Emerging Market Equity	7.00	8.9
Core Bonds	13.75	1.0
High Yield Bonds	2.00	3.1
Bank Loans	2.00	3.0
Emerging Market Debt	4.50	3.4
Private Debt	3.75	5.5
Private Real Estate	7.00	4.7
Real Estate Investment Trust (REIT)	0.50	5.9
Treasury Inflation Protected Securities (TIPS)	3.50	1.0
Commodities	1.00	3.4
Public Real Assets	1.00	4.8
Private Equity	14.00	9.0
Cash	1.00	0.0
Total	100.00%	

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability of LACERS as of June 30, 2018, calculated using the discount rate of 7.25%, as well as what LACERS net pension liability would be if it were calculated using a discount rate that is one percentage point lower (6.25%) or one percentage point higher (8.25%) than the current rate (dollar in thousands):

1% Decrease (6.25%)	Current Discount Rate (7.25%)	1% Increase (8.25%)
$8,449,879	$5,709,348	$3,451,003

3. Postemployment Health Care Plan Description

Plan Administration and Membership

LACERS administers, and provides single-employer postemployment healthcare benefits to eligible retirees and their eligible spouses/domestic partners who participate in the Retirement Plan regardless of their membership tiers. These benefits consist of subsidies which may also apply to the coverage of other eligible dependent(s).

As of June 30, 2018, the components of Membership, excluding non-participating retirees and surviving spouses of LACERS postemployment healthcare benefits were as follows:

Retired Members/Surviving Spouses(1)	15,144
Vested terminated Members entitled to, but not yet receiving benefits(2)	1,401
Active Members	26,042
Total	42,587

(1) Total participants including married dependents and dependent children currently receiving benefits are 20,288.
(2) Includes terminated Members due a refund of employee contributions.

Eligibility Requirement and Benefits Provided

To be eligible for LACERS postemployment healthcare benefits, Member must: 1) be at least age 55; 2) have at least 10 whole years of service with LACERS; and 3) be enrolled in a System-sponsored medical or dental plan or are a participant in the Medical Premium Reimbursement Program (MPRP). Retirees and surviving spouses/domestic partners can choose from the health plans that are available, which include medical, dental, and vision benefits, or participate in the MPRP if he/she resides in an area not covered by the available medical plans. Retirees and surviving spouses/domestic partners receive medical subsidies based on service years and service credit. The dental subsidies are provided to the retirees only, based on service years and service credit.

The maximum subsidies are set annually by the Board. Effective February 21, 2016, healthcare benefit eligibility requirements have changed for the Members who have periods of part-time service. Such Members are now eligible to participate in the LACERS retiree medical programs with a 10 whole years of service, even if some or all of that service was part-time, provided that the Member meets the eligibility requirements. Both Tier 1 and Tier 3 Members will be eligible for 40% of maximum medical plan premium subsidy for 1 – 10 whole years of service credit, and eligible Members earn 4% per year of service credit for their annual medical subsidy accrual after 10 years of service. Eligible spouses/domestic partners of Plan Members are entitled to the System's postemployment healthcare benefits after the retired Member's death. During the 2011 fiscal year, the City adopted an ordinance ("Subsidy Cap Ordinance") to limit the maximum medical subsidy at $1,190 for those Members who retire on or after July 1, 2011; however, Members who at any time prior to retirement made additional contributions are exempted from the subsidy cap and obtain a vested right to future increases in the maximum medical subsidy at an amount not less than the dollar increase in the Kaiser two-party non-Medicare Part A and Part B premium. As of June 30, 2018, all active Tier 1 and Tier 3 Members were making the additional contributions, and therefore will not be subject to the medical subsidy cap (refer to Member Contributions of Note 2 – Retirement Plan Description on page 30).

Employer Contributions

The Los Angeles City Charter Sections 1158 and 1160 require periodic employer contributions at actuarially determined rates that, expressed as percentages of annual covered payroll, are sufficient to accumulate the required assets to pay benefits when due. The required contribution rate for the Postemployment Health Care Plan for the fiscal year ended June 30, 2018, was 4.92% of projected payroll, based on the June 30, 2016 actuarial valuation.

Upon closing the fiscal year 2017-18, LACERS re-calculated employer contribution rate using actual payroll incurred during the fiscal year which was smaller than projected covered payroll used by the City to make the advance payment on July 15, 2017. As a result, employer contributions for Postemployment Health Care Plan were $3,766,000 more than required, and this amount was returned to the employer as a credit toward employer contribution for fiscal year 2018-19. Based on the actual payroll, the effective rate of employer contribution for Postemployment Health Care Plan was 4.90%.

3. Postemployment Health Care Plan Description (Continued)

Net OPEB Liability

As of June 30, 2018, the components of the net OPEB liability were as follows (in thousands):

Total OPEB Liability	$ 3,256,827
Plan Fiduciary Net Position	(2,676,371)
Plan's Net OPEB Liability	$ 580,456
Plan Fiduciary Net Position as a percentage of the Total OPEB Liability	82.2%

Significant Assumptions

The total OPEB liability as of June 30, 2018 was determined by actuarial valuation as of June 30, 2018. The attribution method and significant assumptions used to measure the total OPEB liability, including assumptions about inflation, and healthcare cost trend rates in the valuation year of June 30, 2018, are summarized below:

Valuation Date	June 30, 2018
Actuarial Cost Method	Entry Age Cost Method – level percent of salary.
Amortization Method:	Level Percent of Payroll – assuming a 3.50% increase in total covered payroll.
Actuarial Assumptions:	
Date of Experience Study	June 30, 2017 (July 1, 2014 through June 30, 2017)
Long-Term Expected Rate of Return	7.25%
Inflation	3.00%
Salary Increase	Range from 3.90% to 10.00% based on years of service, including inflation assumption at 3.00%.
Mortality Table for Retirees and Beneficiaries	Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table (separate tables for males and females) projected generationally with the two-dimensional mortality improvement scale MP-2017.
Mortality Table for Disabled Retirees	Headcount-Weighted RP-2014 Disabled Retiree Mortality Table (separate tables for males and females) projected generationally with the two-dimensional mortality improvement scale MP-2017.
Marital Status	60% of male and 35% of female retirees who receive a subsidy are assumed to be married or have a qualified domestic partner and elect dependent coverage.
Spouse Age Difference	Male retirees are assumed to be four years older than their female spouses. Female retirees are assumed to be two years younger than their male spouses.
Surviving Spouse Coverage	With regard to Members who are currently alive, 100% of eligible spouses or domestic partners are assumed to elect continued health coverage after the Member's death.
Participation	50% of inactive Members are assumed to receive a subsidy for a City approved health carrier. 100% of retirees becoming eligible for Medicare are assumed to be covered by both Parts A and B.

3. Postemployment Health Care Plan Description (Continued)

Net OPEB Liability (Continued)

Significant Assumptions (Continued)

Healthcare Cost Trend Rates

Medical Premium Trend Rates to be applied in the following fiscal years, to all health plans. Trend Rate is to be applied to the premium for shown fiscal year to calculate next fiscal year's projected premium.

Medical Premium Trend Rates to be applied to fiscal year 2018-2019 and later years are:

First Fiscal Year (July 1, 2018 through June 30, 2019)		
Carrier	Under Age 65	Age 65 & Over
Kaiser HMO	3.50%	4.29%
Anthem Blue Cross HMO	(1.75%)	N/A
Anthem Blue Cross PPO	3.50%	3.25%
UHC Medicare HMO	N/A	3.25%

Fiscal Year 2019 - 2020 and later	
Fiscal Year	Trend (Approx.)
2019 - 2020	6.87%
2020 - 2021	6.62%
2021 - 2022	6.37%
2022 - 2023	6.12%
2023 - 2024	5.87%
2024 - 2025	5.62%
2025 - 2026	5.37%
2026 - 2027	5.12%
2027 - 2028	4.87%
2028 - 2029	4.62%
2029 - 2030 and later	4.50%

Dental Premium Trend to be applied is 4.00% for all years.

Medicare Part B Premium Trend for the 2018-19 fiscal year will be calculated based on the actual increase in premium from 2018 to 2019. 4.00% for years following the 2019 calendar year.

3. Postemployment Health Care Plan Description (Continued)

Net OPEB Liability (Continued)

Discount Rate
The discount rate used to measure the total OPEB liability was 7.25% as of June 30, 2018 and June 30, 2017. As contributions that are required to be made by the City to amortize the Unfunded Actuarial Accrued Liability in the funding valuation are determined on an actuarial basis, the future Actuarially Determined Contributions (ADC) and current Plan assets, when projected in accordance with the method prescribed by GASB Statement No. 74, are expected to be sufficient to make all benefit payments to current plan Members.

The long-term expected rate of return on OPEB plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of 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, are summarized in the following table. These values were used in the derivation of the long-term expected investment rate of return assumption for the actuarial valuation as of June 30, 2018.

Asset Class	Target Allocation	Arithmetic Long-Term Expected Real Rate of Return
U.S. Large Cap Equity	14.00%	5.3%
U.S. Small Cap Equity	5.00	6.1
Developed Int’l Large Cap Equity	17.00	6.7
Developed Int’l Small Cap Equity	3.00	7.1
Emerging Market Equity	7.00	8.9
Core Bonds	13.75	1.0
High Yield Bonds	2.00	3.1
Bank Loans	2.00	3.0
Emerging Market Debt	4.50	3.4
Private Debt	3.75	5.5
Private Real Estate	7.00	4.7
Real Estate Investment Trust (REIT)	0.50	5.9
Treasury Inflation Protected Securities (TIPS)	3.50	1.0
Commodities	1.00	3.4
Public Real Assets	1.00	4.8
Private Equity	14.00	9.0
Cash	1.00	0.0
Total	100.00%	

3. Postemployment Health Care Plan Description (Continued)

Net OPEB Liability (Continued)

Sensitivity of the Net OPEB Liability to Changes in the Discount Rate

The following presents the net OPEB liability of LACERS as of June 30, 2018, calculated using the discount rate of 7.25%, as well as what LACERS net OPEB liability would be if it were calculated using a discount rate that is one percentage point lower (6.25%) or one percentage point higher (8.25%) than the current rate (dollar in thousands):

1% Decrease (6.25%)	Current Discount Rate (7.25%)	1% Increase (8.25%)
$ 1,048,382	$ 580,456	$ 198,029

Sensitivity of the Net OPEB Liability to Changes in the Healthcare Cost Trend Rates

The following presents the net OPEB liability of LACERS as of June 30, 2018, as well as what LACERS net OPEB liability would be if it were calculated using healthcare cost trend rates that are one percentage point lower or one percentage point higher than the current rates (dollar in thousands):

1% Decrease	Current Healthcare Cost Trend Rates(1)	1% Increase
$ 144,918	$ 580,456	$1,151,433

(1) Current healthcare cost trend rates: 6.87% graded down to 4.50% over 10 years for Non-Medicare medical plan costs, and 6.37% graded down to 4.50% over eight years for Medicare medical plan costs. The 2020-2021 premium increases include additional estimated increases of 1.00% (non-Medicare) and 0.50% (Medicare) from the impact of the Health Insurance Tax (HIT). 4.00% for all years for Dental and Medicare part B subsidy cost.

4. Contributions Required and Contributions Made

LACERS switched to the Entry Age cost method beginning from the June 30, 2012 actuarial valuation to determine the required annual contribution amount for the Retirement Plan and the Postemployment Health Care Plan. The required annual contribution amount is composed of two components: normal cost, which is the cost of the portion of the benefit that is allocated to a given year, and the payment to amortize the Unfunded Actuarial Accrued Liability (UAAL) which is the difference between LACERS actuarial liabilities and actuarial assets. The components of the UAAL are amortized as a level percent of pay. Based on LACERS funding policy, increases or decreases in the UAAL due to assumption changes are amortized over 20 years, except that healthcare cost trend and premium assumption changes are amortized over 15 years. Plan changes and experience gains and losses are amortized over 15 years, subject to adjustments to comply with GASB requirements on maximum amortization period of 30 years for all layers combined. The amortization periods are "closed" as each layer of the UAAL is systematically amortized over a "fixed" period.

The total contributions to LACERS for the year ended June 30, 2018, in the amount of $787,469,000 ($686,560,000 for the Retirement Plan and $100,909,000 for the Postemployment Health Care Plan), consisted of the following (in thousands):

	Retirement Plan	Postemployment Health Care Plan
City Contributions:		
Required Contributions	$ 450,195	$ 100,909
FDBP	143	-
Total City Contributions	450,338	100,909
Member Contributions	236,222	-
Total Contributions	$ 686,560	$ 100,909

The City contributions made for the Retirement Plan under the Required Contributions category in the amount of $450,195,000 were equal to 100% of the actuarially determined contribution of the employer. The City contributions made for the Postemployment Health Care Plan, in the amount of $100,909,000, represents 100% of the actuarially determined contribution of the employer as defined by GASB Statement No. 74. Member contributions in the amount of $236,222,000 were made toward the Retirement Plan and the voluntary Family Death Benefit Plan.

5. Historical Trend Information

Historical trend information, designed to provide information about LACERS progress made in accumulating sufficient assets to pay benefits when due, is presented on pages 50 - 53 for the Retirement Plan and pages 54 - 58 for the Postemployment Health Care Plan.

6. Cash and Short-Term Investments and Investments

The Board has the responsibility for the investment of LACERS funds, and should discharge its duties with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with these matters would use in the conduct of an enterprise of a like character and with like aims, as prescribed by Article XI Section 1106(c) of the City Charter.

LACERS considers investments with a maturity of 12 months or less to be short-term investments. The carrying value of cash and short-term investments at June 30, 2018, for the Retirement Plan and Postemployment Health Care Plan included approximately $2,509,000 held in LACERS general operating accounts with the City Treasurer and short-term investments funds (STIF) of $467,881,000 for a total of $470,390,000. The amounts held by the City Treasurer are pooled with the monies of other City agencies and invested by the City Treasurer's office. These assets are not individually identifiable. At June 30, 2018, short-term investments included collective STIF of $86,079,000, international STIF of $133,360,000, and future contracts initial margin and collaterals of $248,443,000.

The fair value of derivative instruments, including equity index, commodity, currency, and interest rate future contracts, currency forward contracts and options, and rights and warrants, are recorded in the Statement of Fiduciary Net Position with a net positive value of $1,000,000. The changes in fair value of the derivative instruments during the fiscal year are recorded in the Statement of Changes in Fiduciary Net Position as Investment Income. LACERS enters into derivative contracts for investment purposes and to manage risks associated with its investment portfolio. For financial reporting purposes, all of LACERS derivatives for the current and previous fiscal years are classified as investment derivatives.

The notional amount and the fair value of derivative instruments as of June 30, 2018, are as follows (in thousands):

Derivative Type	Notional Amount	Fair Value	Change in Fair Value
Future Contracts -			
Commodities	$ 180,587	$ 1,057	$ (1,104)
Equity Index	16,278	111	243
Foreign Exchange	(25,500)	(299)	(300)
Interest Rate	(5,064)	(173)	(181)
Currency Forward Contracts	234,346	(65)	(4)
Currency Options	N/A	198	(71)
Right / Warrants	N/A	171	57
Total Value		$ 1,000	$ (1,360)

Credit Risk – Investments

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. LACERS seeks to maintain a diversified portfolio of fixed income instruments in order to obtain the highest total return for the fund at an acceptable level of risk within this asset class. The credit quality ratings of investments in fixed income securities by Standard and Poor's (S&P), a nationally-recognized statistical rating organization, as of June 30, 2018, are as follows (dollars in thousands):

S & P Ratings	Fair Value	Percentage
AAA	$ 84,057	2.86 %
AA	1,447,300	49.25
A	147,895	5.03
BBB	488,161	16.61
BB	245,712	8.36
B	337,064	11.47
CCC	34,995	1.19
CC	-	-
C	1,079	0.04
D	607	0.02
Not Rated	152,102	5.17
	2,938,972	100.00%
U.S. Government Guaranteed Securities(1)	1,230,277	
Total Fixed Income Securities(2)	$ 4,169,249	

(1) Consists of U.S. Government Bonds and GNMA Mortgage-Backed Securities which had the AA+ rating.

(2) Derivatives instrument of $(173,000) are included.

6. Cash and Short-Term Investments and Investments (Continued)

Credit Risk – Derivatives

Derivatives are subject to credit risk that the counterparty to a contract will default. LACERS is exposed to credit risk on reported assets of the investment derivatives that are traded over the counter. The credit risk of exchange traded derivatives for future contracts is considered minimal because the exchange clearing house is the counterparty and guarantees the performance.

LACERS permits investment managers, under the terms of individual guidelines, to use derivative instruments as set forth in each manager's investment guidelines to control portfolio risk. It is the responsibility of these investment managers to actively monitor counterparties on their financial safety and ensure compliance with the investment restrictions. LACERS has no general investment policy with respect to netting arrangements or collateral requirements. However, these individual investment managers have set up the arrangements with the counterparties to net off the positive and negative contracts with the same counterparty in case of the counterparty's default.

As of June 30, 2018, without respect to netting arrangements, LACERS maximum loss on derivative instruments subject to credit risk, namely currency forward contracts, is $2,839,000. All counterparties of these investment derivatives had the credit rating of "A" or "AA" assigned by Standard & Poor's.

Custodial Credit Risk

Custodial credit risk for deposits is the risk that, in the event of a financial institution's failure of depository financial institution, LACERS would not be able to recover its deposits or would not be able to recover collateral securities that are in the possession of an outside party. Deposits are exposed to custodial credit risk if they are not insured or not collateralized. As of June 30, 2018, LACERS has exposure to such risk in the amount of $31,308,000 or 0.52% of the fair value of total international investments. The amount represents non-invested cash denominated in foreign currencies, managed by 11 different investment managers, and held outside of LACERS custodial bank. LACERS policy requires each individual publicly traded equities investment manager to hold no more than 10% of their portfolios in the form of cash. LACERS is in compliance with the policy.

Custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, LACERS would not be able to recover the value of the investment or collateral securities that are in the possession of an outside party. Investment securities are exposed to custodial credit risk if the securities are not insured, are not registered in LACERS name, and are held by the counterparty, or the counterparty's trust department or agent but not in LACERS name. As of June 30, 2018, LACERS investments were not exposed to custodial credit risk because all securities were registered in the name of the System.

Concentration of Credit Risk

The investment portfolio as of June 30, 2018, contained no concentration of investments in any one entity that represented 5% or more of the total investment portfolio.

6. Cash and Short-Term Investments and Investments (Continued)

Interest Rate Risk

Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. One of the ways LACERS manages its exposure to interest rate risk is by requiring the fixed income investment managers to maintain their portfolio effective duration within a specified range of the BC U.S. High Yield 2% Capped Index, the BC Intermediate Government Credit Index, the BC Aggregate Bond Index, or the J.P. Morgan EMBI Global Diversified Index, depending on the Board's mandates. The effective duration is a measure, in years, of interest-rate sensitivity in debt investments. The longer the effective duration, the greater the sensitivity to interest rate changes. Information about the sensitivity of the fair values of LACERS investments to market interest rate fluctuations as of June 30, 2018 is provided by the following table that shows the weighted average effective duration of LACERS fixed income securities by investment type (dollars in thousands):

Investment Type	Fair Value	Weighted Average Duration (in Years)
Asset-Backed Securities	$ 85,268	1.12
Bank Loans	5,397	0.23
Commercial Mortgage-Backed Securities	46,791	4.66
Corporate Bonds	1,031,566	5.48
Government Agencies	71,807	4.58
Government Bonds	801,489	6.74
Government Mortgage-Backed Securities	377,823	4.81
Index Linked Government Bonds	596,477	7.17
Municipal/Provincial Bonds	7,360	2.89
Non-Government Backed Collateralized Mortgage Obligations (C.M.O.s)	1,563	1.03
Opportunistic Debts	109,931	0.19
Other Fixed Income (Funds)	1,033,950	6.02
Derivative Instruments	(173)	12.60
Total Fixed Income Securities	$ 4,169,249	

Highly-Sensitive Investments

Highly-sensitive investments are certain debt investments whose terms may cause their fair value to be highly-sensitive to market interest rate changes. Terms include embedded options, coupon multipliers, benchmark indexes, and reset dates. LACERS asset-backed investments have embedded prepayment options that will typically cause prepayments by the obligees of the underlying investments when interest rates fall. Prepayments eliminate the stream of future interest payments and, therefore, diminish the fair value of the asset-backed investment. The following table shows the fair value of LACERS asset-backed investments by investment type (in thousands):

Investment Type	Fair Value
Asset-Backed Securities	$ 85,268
Commercial Mortgage-Backed Securities	46,791
Government Agencies	71,807
Government Mortgage-Backed Securities	377,823
Non-Government Backed C.M.O.s	1,563
Total Asset-Backed Investments	$ 583,252

Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or deposit. LACERS Asset Allocation policy sets a target of 27% of the total portfolio for non-U.S. investments in equities. In addition, fixed income, real estate, and private equity managers may hold non-U.S. investments depending on their individual mandates. Forward currency contracts are permitted primarily to reduce the foreign currency risk.

6. Cash and Short-Term Investments and Investments (Continued)

Foreign Currency Risk (Continued)

LACERS non-U.S. currency investment holdings as of June 30, 2018, which represent 28.5% of the fair value of total investments, are as follows (in thousands):

Foreign Currency Type	Cash and Adjustments to Cash	Equity	Fixed Income	Derivative Instruments	Other Investments	Total Fair Value in USD
Australian dollar	$ 135	$ 168,808	$ 7,170	$ (7)	$ -	$ 176,106
Brazilian real	(1,783)	60,803	214	229	-	59,463
British pound sterling	1,228	689,123	-	142	181	690,674
Canadian dollar	2,164	197,732	-	15	-	199,911
Chilean peso	(4,444)	7,748	-	250	-	3,554
Chinese yuan renminbi	(956)	-	-	23	-	(933)
Colombian peso	(1,791)	5,290	-	(4)	-	3,495
Czech koruna	418	3,085	-	82	-	3,585
Danish krone	38	63,142	-	-	-	63,180
Egyptian pound	39	3,325	-	-	-	3,364
Euro	4,009	1,211,417	21,646	755	88,825	1,326,652
Hong Kong dollar	829	423,026	-	21	-	423,876
Hungarian forint	(3,197)	2,199	-	118	-	(880)
Indian rupee	8,064	111,055	-	3	-	119,122
Indonesian rupiah	6,285	17,912	-	15	-	24,212
Israeli new shekel	(4,262)	12,822	-	104	-	8,664
Japanese yen	1,729	830,939	-	97	-	832,765
Malaysian ringgit	628	30,007	1,559	-	-	32,194
Mexican peso	2,504	28,172	523	(66)	-	31,133
New Taiwan dollar	1,568	140,800	-	293	-	142,661
New Zealand dollar	337	10,925	2,502	-	-	13,764
Norwegian krone	491	51,224	2,543	-	-	54,258
Peruvian nuevo sol	1,301	-	-	2	-	1,303
Philippine peso	(3,111)	8,293	-	34	-	5,216
Polish zloty	(1,997)	10,323	-	119	-	8,445
Qatari rial	-	4,904	-	-	-	4,904
Russian ruble	3,168	14,131	-	6	-	17,305
Singapore dollar	(1,613)	69,011	-	1	-	67,399
South African rand	(1,522)	64,309	5,422	15	-	68,224
South Korean won	(2,743)	168,508	-	83	-	165,848
Swedish krona	20	99,079	-	-	-	99,099
Swiss franc	(2,048)	260,613	-	74	-	258,639
Thai baht	(741)	31,239	-	187	-	30,685
Turkish lira	1,594	13,490	-	-	-	15,084
United Arab Emirates dirham	-	1,914	-	-	-	1,914
Total Investments Held in Foreign Currency	$ 6,341	$ 4,815,368	$ 41,579	$ 2,591	$ 89,006	$ 4,954,885

6. Cash and Short-Term Investments and Investments (Continued)

Fair Value Measurements

LACERS follows GASB Statement No. 72 (GASB 72), *Fair Value Measurements and Application*. GASB 72 addresses accounting and financial reporting issues related to fair value measurements and disclosures. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants in either a government's principal or the most advantageous market at the measurement date.

The System's investments are measured and reported within the fair value hierarchy established by US GAAP. The fair value hierarchy, which has three levels, is based on the valuation inputs used to measure an asset's fair value and gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of the fair value hierarchy are as follows:

Level 1 inputs are quoted prices (unadjusted) for identical assets or liabilities in active markets.

Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for an asset or liability, either directly or indirectly. Inputs to the valuation include: 1) quoted prices for similar assets or liabilities in active markets; 2) quoted prices for identical or similar assets or liabilities in markets that are not active; 3) inputs other than quoted prices that are observable for the asset or liability; and 4) market-corroborated inputs.

Level 3 inputs are unobservable inputs for an asset or liability where there are little market activities. The inputs into the determination of fair value are based upon the best information in the circumstances and may require management judgment or estimation.

Schedule of Investments by Fair Value Hierarchy

Equity securities classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets for those securities. Debt and equity securities classified in Level 2 or 3 of the fair value hierarchy are valued using a matrix pricing technique based on the availability of the market price, the pricing source and type, and the country of incorporation of the securities. The hierarchy levels are determined based on the level of corroborative information obtained from other market sources to assert that the prices provided represent observable data.

Private equity funds classified in Level 3 of the fair value hierarchy are valued based on the availability of market price of the underlying assets, and using either a discounted cash flow or Comparable Company Analysis with internal assumptions. Real estate funds classified in Level 2 or 3 of the fair value hierarchy are valued based on periodic appraisals in accordance with industry practice.

The exchange traded Future Contracts classified in Level 1 of the fair value hierarchy are valued using a daily settlement when available or as a daily mark to market. The Foreign Exchange Contracts classified in Level 2 of the fair value hierarchy are valued using independent pricing services including London Close mid-evaluation, WM/Reuters Company, Bloomberg, and Thomson Reuters.

Certain investments which do not have a readily determinable fair value have been valued at the Net Asset Value (NAV) per share (or its equivalent) provided that the NAV is calculated and used as a practical expedient to estimate fair value in accordance with US GAAP requirements. These investments are not categorized within the fair value hierarchy but disclosed in the Investments Measured at the NAV on page 43.

Notes to the Basic Financial Statements

6. Cash and Short-Term Investments and Investments (Continued)

Fair Value Measurements (Continued)

Schedule of Investments by Fair Value Hierarchy (Continued)

The System has the following recurring fair value measurements as of June 30, 2018 (in thousands):

		Fair Value Measurements Using		
	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Other Unobservable Inputs (Level 3)
Investments by Fair Value Level:				
Debt securities:				
Government Bonds	$ 1,397,966	$ -	$ 1,397,966	$ -
Government Agencies	71,808	-	71,808	-
Municipal/Provincial Bonds	7,360	-	7,360	-
Corporate Bonds	1,118,397	-	1,117,321	1,076
Bank Loans	5,397	-	5,397	-
Government Mortgage Bonds	377,823	-	377,823	-
Commercial Mortgage Bonds	46,791	-	46,791	-
Opportunistic Debts	13,616	-	-	13,616
Total Debt Securities	3,039,158	-	3,024,466	14,692
Equity Securities:				
Common Stock:				
Basic Industries	1,238,136	1,237,912	112	112
Capital Goods Industries	551,108	550,914	-	194
Consumer & Services	2,191,161	2,190,664	-	497
Energy	853,206	853,066	-	140
Financial Services	1,678,531	1,678,497	-	34
Health Care	1,017,635	1,017,540	-	95
Information Technology	1,756,797	1,755,023	-	1,774
Real Estate	435,519	435,460	-	59
Miscellaneous	7,026	5,020	251	1,755
Total Common Stock	9,729,119	9,724,096	363	4,660
Preferred Stock	42,317	42,317	-	-
Stapled Securities	11,938	9,809	2,129	-
Total Equity Securities	9,783,374	9,776,222	2,492	4,660
Private Equity Funds	136,552	-	-	136,552
Real Estate Funds	111,465	-	110,242	1,223
Total Investments by Fair Value Level	13,070,549	$ 9,776,222	$ 3,137,200	$ 157,127
Investments Measured at the NAV:				
Common Fund Assets	1,033,950			
Private Equity Funds	1,670,786			
Real Estate Funds	690,169			
Opportunistic Debts	96,315			
Total Investments Measured at the NAV	3,491,220			
Total Investments Measured at Fair Value(1)	$ 16,561,769			
Investment Derivative Instruments:				
Future Contracts (liabilities)	$ 696	$ 696	$ -	$ -
Foreign Exchange Contracts (liabilities)	(65)	-	(65)	-
Rights/Warrants	369	167	199	3
Total Investment Derivative Instruments	$ 1,000	$ 863	$ 134	$ 3

(1) Excluded $1,000,000 of investment derivative instruments (shown separately) and $795,076,000 of security lending collateral.

6. Cash and Short-Term Investments and Investments (Continued)

Fair Value Measurements (Continued)

Investments Measured at the NAV: (in thousands)	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Common Fund Assets (1)	$ 1,033,950	$ -	Daily	2 days
Private Equity Funds (2)	1,670,786	774,191	N/A	N/A
Real Estate Funds (3)	690,169	34,629	Daily, Quarterly	1-90 days
Opportunistic Debts (4)	96,315	-	Monthly	30 days
Total Investments Measured at the NAV	$ 3,491,220	$ 808,820		

(1) Common fund assets - This investment type includes one fund that primarily invests in U.S. bonds. The fair value of the investment has been determined using a practical expedient based on the investments' NAV per share (or its equivalent). This investment can be redeemed daily, with a two-day advance redemption notice period.

(2) Private equity funds - This investment type includes 186 closed-end commingled private equity funds that invest primarily in securities of privately held U.S. and non-U.S. companies. The fair values of these investments have been determined using a practical expedient based on the investments' NAV per share (or its equivalent). These investments are not redeemable. It is expected that these investments will be held for the entire lives of the funds and will not be sold in the secondary market. Distributions from each fund will be received as the underlying assets are liquidated by the fund managers. It is expected that the underlying assets of these funds will be liquidated over the next one to 13 years, depending on the vintage year of each fund.

(3) Real estate funds - This investment type includes 28 commingled real estate funds that invest primarily in U.S. commercial real estate. The fair values of these investments have been determined using a practical expedient based on the investments' NAV per share (or its equivalent). Seven investments, representing approximately 70.2% of the value of this investment type, are in open-end funds, which may be redeemed according to terms specific to each fund. Redemptions generally are subject to the funds' available cash and redemption queues. There is no intention to redeem any of these seven investments in the near future. Twenty-one investments, representing approximately 29.8% of the value of this investment type, are in closed-end funds and are not redeemable. It is expected that these investments will be held for the entire lives of the funds and will not be sold in the secondary market. Distributions from each fund will be received as underlying assets are liquidated by the fund managers. It is expected that the underlying assets of these funds will be liquidated over the next one to 12 years, depending on the vintage year of each fund.

(4) Opportunistic debts - This investment type includes two commingled funds: one that invests primarily in senior loans of non-investment grade companies (senior loan fund) and another one invests primarily in the securities and obligations of companies experiencing operational or financial distress (distressed investment fund). The fair values of these investments have been determined using a practical expedient based on the investments' NAV per share (or its equivalent). The senior loan fund, representing approximately 99% of the value of this investment type, can be redeemed monthly. The distressed investment fund, representing approximately 1% of the value of this investment type, is being dissolved and is no longer making new underlying investments. Distributions from this fund will be received as underlying investments are liquidated by the fund manager. It is expected that this fund will be liquidated fully over the next three years.

7. Securities Lending Agreement

Under authority granted by the City Charter, LACERS has entered into various short-term arrangements with its custodian to lend securities to various brokers. There are no restrictions on the amount of securities that may be lent, and the custodian determines which lenders' accounts to lend securities from by using an impartial sequential system that matches loan requests with various lenders' accounts. All lenders are deemed to have relatively equal opportunity to profit from the lending of securities. Therefore, should a collateral deficiency occur beyond the custodian's responsibilities, the deficiency is allocated pro rata among all lenders.

Minimum collateralization is 102% of the fair value of the borrowed U.S. securities and 105% for international securities. Collateral consists of cash, government and corporate securities, and commercial bank obligations. Cash collateral is invested in a separate account comprised of money market or high quality short-term investments. It is the responsibility of the custodian to monitor the collateralization on a daily basis. If the collateral is below the minimum collateralization level, additional collateral will be requested from the borrower to meet the requirement. Collateral requested each morning is required to be received on the same day. If the borrower fails to deliver additional collateral, the custodian would notify the borrower that they are in default under the securities lending agreement. If the borrower does not provide the necessary collateral after receiving notification, the legal agreement allows the custodian to close the contract with the borrower and buy-in the securities on behalf of LACERS.

The borrower has all incidents of ownership with respect to borrowed securities and collateral, including the right to vote and transfer or loan borrowed securities to others. LACERS is entitled to receive all distributions, which are made by the issuer of the borrowed securities, directly from the borrower. Under the agreement, the custodian will indemnify LACERS as a result of the custodian's failure to: 1) make a reasoned determination of the creditworthiness of a potential borrower before lending and, during the term of the loan or loans, the borrower files a petition of bankruptcy or similar action; 2) demand adequate collateral; or 3) otherwise maintain the securities lending program in compliance with the Federal Financial Institutions Examination Council Supervisory Policy on Securities Lending.

These agreements provide for the return of the securities and revenue determined by the type of collateral received. The cash collateral values of securities on loan to brokers are shown at their fair values on the Statement of Fiduciary Net Position.

As of June 30, 2018, LACERS had no losses on securities lending transactions resulting from default of a borrower or lending agent. Due to the nature of the securities lending program and the custodian bank's collateralization of loans at amounts greater than the fair value of the loaned securities, it is deemed that there were no material credit risks to LACERS as defined in GASB Statement No. 28 and GASB Statement No. 40 by its participation in the securities lending program. However, similar to any other investment portfolio, there is risk associated with investing cash collateral in securities. The value of the invested collateral may fall below the value of the cash collateral pledged by the borrowers, and may impair LACERS ability to return cash collateral to the borrowers upon the redemption of loans. In this event, LACERS would be required to make up the deficiency in collateral and would incur a loss.

All securities loans can be terminated on demand by either LACERS or the borrower. Because of this nature, their duration did not generally match the duration of the investment made with the cash collateral. LACERS cannot pledge or sell non-cash collateral unless the borrower defaults.

The following table represents the fair value of securities on loan and cash/non-cash collateral received as of June 30, 2018 (in thousands):

Securities on Loan	Fair Value of Securities on Loan	Cash/Non-Cash Collateral Received
U.S. Government and Agency Securities	$ 426,027	$ 435,948
Domestic Corporate Fixed Income Securities	137,145	140,723
International Fixed Income Securities	97,385	103,495
Domestic Stocks	426,234	437,096
International Stocks	563,588	600,872
Total	$ 1,650,379	$ 1,718,134

7. Securities Lending Agreement (Continued)

As of June 30, 2018, the fair value of the securities on loan was $1,650,379,000. The fair value of associated collateral was $1,718,134,000 ($795,076,000 of cash collateral and $923,058,000 of non-cash collateral). Non-cash collateral, which LACERS does not have the ability to sell unless the borrower defaults, is not reported in the Statement of Fiduciary Net Position. LACERS income and expenses related to securities lending were $8,185,000 and $1,226,000, respectively, for the year ended June 30, 2018.

8. Future and Forward Contracts

LACERS uses derivative financial instruments, primarily to manage portfolio risk. Future and forward contracts are marked to market and are recorded in the Statement of Fiduciary Net Position at fair value. Future contracts have little credit risk, as organized exchanges are the guarantors. Forward agreements are subject to the creditworthiness of the counterparties, which are principally large financial institutions (refer to Note 6 – Credit Risk - Derivatives on page 39).

As of June 30, 2018, LACERS had outstanding commodities, equity index, and interest rate future contracts with an aggregate notional amount of $191,801,000, and foreign exchange future contract with a negative notional amount of $25,500,000 due to its short position. In addition, at June 30, 2018, LACERS had outstanding forward purchase commitments with a notional amount of $234,346,000 and offsetting forward sales commitments with notional amounts of $234,346,000, which expire through February 2019. LACERS maintains margin collateral on the positions with brokers, consisting of cash and U.S. Treasury Bills. The total collateral margin was $248,443,000 as of June 30, 2018.

9. Operating Lease

The System leases building facilities under a non-cancelable operating lease that expires in March 2023, at which time a three-year renewal option is available. This lease also contains provisions for the System to pay its prorated share of subsequent increases in operating costs and taxes over the base rate established during the initial year of the lease.

The future minimum lease commitments are as follows as of June 30, 2018:

Fiscal Year 2019	$ 775,000
Fiscal Year 2020	806,000
Fiscal Year 2021	1,003,000
Fiscal Year 2022	1,043,000
Fiscal Year 2023	813,000

10. Commitments and Contingencies

As of June 30, 2018, LACERS was committed to future purchases of real estate and private equity investments at an aggregate cost of approximately $1,159,053,000, including agreements for acquisition not yet initiated.

The Patient Protection and Affordable Care Act (PPACA) of 2010 contains a provision that would impose a 40% excise tax on the annual value of high-cost health plans that exceed certain dollar thresholds beginning in 2022 (deferred from year 2020). If there is no change in the law or LACERS plan provisions between now and 2022, and if the current medical cost trend stays substantially the same during the same period, some of LACERS postemployment health care benefits will be subject to the excise tax in 2022 and thereafter. Recently released GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, requires the inclusion of the excise tax in the liability. The Statement No. 75 is effective for fiscal years beginning after June 15, 2017 for employer reporting. The impact of potential excise tax imposed by the Affordable Care Act (ACA) and related statutes on certain health plans in calculating the contribution rates for the employer have been reflected in the valuation for fiscal year June 30, 2018. However, due to the deferred starting date for projected ACA excise tax, the previous year's projected amount was recalculated, and the net impact lowered the Unfunded Actuarial Accrued Liability (UAAL) by 0.02% of pay.

11. Subsequent Events

Date of Management's Review

The potential for subsequent events was evaluated through November 27, 2018, which was the date of management's review.

11. Subsequent Events (Continued)

Establishment of LACERS Health Care Fund

On November 9, 2018, the City Council approved Ordinance No. 185829 to amend Article 1 of Chapter 11, Division 4 of the Los Angeles Administrative Code to establish the LACERS Health Care Fund for the sole purpose of funding the retiree healthcare benefits for eligible LACERS retirees and beneficiaries.

The City and the Board of LACERS shall enter into a written trust agreement for the LACERS Health Care Fund sometime on or before July 15, 2019. The LACERS Health Care Fund shall provide an alternative funding mechanism, in addition to or in lieu of the existing 401 (h) account described in LAAC Section 4.1102 for funding benefits under the health and welfare programs. The LACERS Health Care Fund is intended to qualify for federal tax exemption under Section 115 of the Internal Revenue Code. Because health benefits paid out of the LACERS Health Care Fund are not required to be subordinate to the Plan retirement benefits, the LACERS Health Care Fund would not become taxable if the Plan health benefits surpass the 25% threshold. Second, the LACERS Health Care Fund gives LACERS more flexibility to invest premium surpluses to provide for smoothing should healthcare premiums considerably increase in the future. Currently, the Health Care Coverage Account cannot receive full refunds of excess premiums from insurance providers. However, the LACERS Health Care Fund can receive full premium surplus refunds from insurance providers; therefore, the System can invest these funds at a higher rate of return than the insurance providers’ reserve account interest rate.

Establishment of Self-Funded LACERS Dental PPO Plan

Effective January 1, 2019, LACERS existing fully-insured Delta Dental PPO Plan will be replaced with LACERS self-funded Delta Dental PPO Plan. Although, Delta will continue to administer the plan for a fee, LACERS will set and collect premiums from enrolled Members and pay billed claims to Delta. With this arrangement, LACERS bears financial risk if claims cost exceed collected premiums. This change does not affect the maximum dental subsidy amount to the eligible retired Members.

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REQUIRED SUPPLEMENTARY INFORMATION

Required Supplementary Information
Retirement Plan

The schedules included in the Required Supplementary Information for the Retirement Plan are intended to show information for 10 years. However, the following schedules do not have a full 10-year trend, and therefore, Los Angeles City Employees' Retirement System (LACERS, the Plan, or the System) presented information only for those years for which information is available:

1) Schedule of Net Pension Liability
2) Schedule of Changes in Net Pension Liability and Related Ratios
3) Schedule of Investment Returns

Additional years will be displayed in the future as they become available.

Schedule of Net Pension Liability (1)
For the Fiscal Years Ended June 30
(Dollars in Thousands)

	2018	2017	2016	2015	2014	2013
Total Pension Liability	$ 19,944,578	$ 18,458,188	$ 17,424,996	$ 16,909,996	$ 16,248,853	$ 14,881,663
Plan Fiduciary Net Position	(14,235,230)	(13,180,516)	(11,809,329)	(11,920,570)	(11,791,079)	(10,154,486)
Plan's Net Pension Liability	$ 5,709,348	$ 5,277,672	$ 5,615,667	$ 4,989,426	$ 4,457,774	$ 4,727,177
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	71.4%	71.4%	67.8%	70.5%	72.6%	68.2%

(1) In calculating the Plan's net pension liability, the total pension liability and the Plan fiduciary net position exclude amounts associated with non-pension related benefits (Family Death and Larger Annuity Benefits).

Note to Schedule:

Refer to the notes to the Schedule of Changes in Net Pension Liability and Related Ratios.

Schedule of Changes in Net Pension Liability and Related Ratios [1]
For the Fiscal Years Ended June 30
(Dollars in Thousands)

	2018	2017	2016	2015	2014	2013
Total Pension Liability						
Service cost	$ 352,283	$ 340,759	$ 322,574	$ 322,380	$ 317,185	$ 312,372
Interest	1,332,878	1,302,278	1,263,556	1,215,151	1,149,966	1,112,561
Changes of benefit terms	25,173	-	-	-	-	-
Differences of expected and actual experience	144,224	(146,474)	(300,813)	(135,821)	(164,247)	(235,829)
Changes of assumptions	483,717	340,718	-	-	785,439	-
Benefit payments, including refunds of Member contributions	(851,885)	(804,089)	(770,317)	(740,567)	(721,153)	(701,400)
Net change in total pension liability	1,486,390	1,033,192	515,000	661,143	1,367,190	487,704
Total pension liability-beginning	18,458,188	17,424,996	16,909,996	16,248,853	14,881,663	14,393,959
Total pension liability-ending (a)	$ 19,944,578	$ 18,458,188	$ 17,424,996	$ 16,909,996	$ 16,248,853	$ 14,881,663
Plan fiduciary net position						
Contributions-employer	$ 450,195	$ 453,356	$ 440,546	$ 381,141	$ 357,649	$ 346,181
Contributions-Member	230,757	221,829	206,377	202,463	203,975	197,722
Net investment income	1,243,817	1,517,545	29,358	306,980	1,810,782	1,268,939
Benefit payments, including refunds of Member contributions	(851,885)	(804,089)	(770,318)	(740,567)	(721,153)	(701,400)
Administrative expenses	(17,699)	(17,454)	(17,204)	(15,860)	(12,372)	(13,281)
Others [2]	(471)	-	-	(4,666)	(2,288)	(2,514)
Net change in Plan fiduciary net position	1,054,714	1,371,187	(111,241)	129,491	1,636,593	1,095,647
Plan fiduciary net position-beginning	13,180,516	11,809,329	11,920,570	11,791,079	10,154,486	9,058,839
Plan fiduciary net position-ending (b)	$ 14,235,230	$ 13,180,516	$ 11,809,329	$ 11,920,570	$ 11,791,079	$ 10,154,486
Plan's net pension liability-ending (a)-(b)	$ 5,709,348	$ 5,277,672	$ 5,615,667	$ 4,989,426	$ 4,457,774	$ 4,727,177
Plan fiduciary net position as a percentage of the total pension liability (b)/(a)	71.4%	71.4%	67.8%	70.5%	72.6%	68.2%
Covered payroll	$ 2,057,565	$ 1,973,049	$ 1,876,946	$ 1,835,637	$ 1,802,931	$ 1,736,113
Plan's net pension liability as a percentage of covered payroll	277.5%	267.5%	299.2%	271.8%	247.3%	272.3%

(1) In calculating the Plan's net pension liability, the total pension liability and the Plan fiduciary net position exclude amounts associated with non-pension related benefits (Family Death and Larger Annuity Benefits).

(2) On July 1, 2015, the System segregated Members' voluntary larger annuity contributions into the (non-pension related) Reserve for Larger Annuity Contributions pursuant to a suggestion made by the System's actuarial consultant. The Reserve balance for Larger Annuity Contributions as of June 30, 2015 was $5,200,000. On July 1, 2017, the System reallocated $471,000 of interest from the Reserve for Mandatory Member Contributions into the Reserve for Voluntary Member Contributions.

Notes to Schedule:

Changes of Benefit Terms: The June 30, 2018 calculation reflected the newly adopted enhanced benefits for Airport Peace Officers (APO) who elected to stay at LACERS Plan (refer to Note 2 – Retirement Plan Description, Tier 1 – Enhanced Benefits on page 29). Enhanced benefits became effective as of January 7, 2018.

Schedule of Changes in Net Pension Liability and Related Ratios (Continued)

Change of Assumptions: The June 30, 2014 calculations reflected various assumption changes based on the triennial experience study for the period from July 1, 2011 through June 30, 2014. The increase of total pension liability for fiscal years ended on June 30, 2014 is primarily due to the lowered assumed investment rate of return from 7.75% to 7.50%, and longer assumed life expectancies for Members and beneficiaries while the June 30, 2017 increase is primarily due to the lowered assumed investment rate of return from 7.50% to 7.25%.

The June 30, 2018 calculations reflected changes in the actuarial assumptions adopted by the Board on August 14, 2018 based on the triennial experience study for the period from July 1, 2014 through June 30, 2017, including revising the mortality tables from static to generational to reflect future mortality improvement, contributing to increased total pension liability.

Schedule of Contribution History
(Dollars in Thousands)

Fiscal Year	Actuarially Determined Contributions (ADC)	Contributions in Relation to ADC	Contribution Deficiency	Covered Payroll	Contributions as a Percentage of Covered Payroll
2009	$274,555	$274,555	$ -	$1,832,796	15.0%
2010	258,643	258,643	-	1,827,864	14.2
2011	303,561	303,561	-	1,678,059	18.1
2012	308,540	308,540	-	1,715,197	18.0
2013	346,181	346,181	-	1,736,113	19.9
2014	357,649	357,649	-	1,802,931	19.8
2015	381,141	381,141	-	1,835,637	20.8
2016	440,546	440,546	-	1,876,946	23.5
2017	453,356	453,356	-	1,973,049	23.0
2018	450,195	450,195	-	2,057,565	21.9

Notes to Schedule:

Valuation Date Actuarially determined contribution rates are calculated as of June 30, two years prior to the end of the fiscal year in which the contributions are reported.

Methods and Assumptions Used to Determine Contribution Rates:

Actuarial Cost Method: Entry Age Actuarial Cost Method (individual basis).

Amortization Method: Level Percent of Payroll.

Amortization Period: Multiple layers – closed amortization period.
Actuarial gains/losses are amortized over 15 years. Assumption or method changes are amortized over 20 years. Plan changes, including the 2009 Early Retirement Incentive Program (ERIP), are amortized over 15 years. Future ERIPs will be amortized over five years. Any actuarial surplus is amortized over 30 years. The existing layers on June 30, 2012, except those arising from the 2009 ERIP and the two Governmental Accounting Standards Board (GASB) Statements No. 25/27 layers, were combined and amortized over 30 years.

Asset Valuation Method: Fair 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. An Ad Hoc change was made in 2018 to combine the unrecognized returns and losses of prior years as of June 30, 2017 into one layer and recognize it evenly over six years from fiscal year 2017-18 through fiscal year 2022-23.

Schedule of Contribution History (Continued)

Notes to Schedule (Continued)

Methods and Assumptions Used to Determine Contribution Rates (Continued)

Actuarial Assumptions:

Investment Rate of Return	7.25%
Inflation	3.00%
Real Across-the-Board Salary Increase	0.50%
Projected Salary Increases[1]	Ranges from 3.90% to 10.00% based on years of service.
Cost of Living Adjustment[2]	Tier 1: 3.00% Tier 3: 2.00%
Mortality	Healthy: Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table (separate tables for males and females) projected generationally with the two-dimensional mortality improvement scale MP-2017. Disabled: Headcount-Weighted RP-2014 Disabled Retiree Mortality Table (separate tables for males and females) projected generationally with the two-dimensional mortality improvement scale MP-2017.

(1) Includes inflation at 3.00% as of June 30, 2018, plus across-the-board salary increase of 0.50% plus merit and promotional increases.

(2) 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.

Schedule of Investment Returns
For the Fiscal Years Ended June 30

	2018	2017	2016	2015	2014
Annual money-weighted rate of return, net of investment expenses	9.3%	12.6%	0.2%	2.6%	18.2%

Note to Schedule:

The rates of investment returns for the fiscal years 2015 and 2016 were much lower compared to other fiscal years. It reflected the impact of divergent and volatile global markets on LACERS investment portfolio over these reporting periods.

Required Supplementary Information
Postemployment Health Care Plan

The schedules included in the Required Supplementary Information for the Postemployment Health Care Plan are intended to show information for 10 years. However, the following schedules do not have a full 10-year trend, and therefore, Los Angeles City Employees' Retirement System (LACERS, the Plan, or the System) presented information only for those years for which information is available:

1) Schedule of Net OPEB Liability
2) Schedule of Changes in Net OPEB Liability and Related Ratios
3) Schedule of Investment Returns

Additional years will be displayed in the future as they become available.

Schedule of Net OPEB Liability
For the Fiscal Years Ended June 30
(Dollars in Thousands)

	2018	2017	2016
Total OPEB Liability	$ 3,256,827	$ 3,005,806	$ 2,793,689
Plan Fiduciary Net Position	(2,676,371)	(2,438,862)	(2,134,877)
Plan's Net OPEB Liability	$ 580,456	$ 566,944	$ 658,812
Plan Fiduciary Net Position as a percentage of the Total OPEB Liability	82.2%	81.1%	76.4%

Note to Schedule:

Refer to the note to the Schedule of Changes in Net OPEB Liability and Related Ratios.

Schedule of Changes in Net OPEB Liability and Related Ratios
For the Fiscal Years Ended June 30
(Dollars in Thousands)

	2018	2017	2016
Total OPEB Liability			
Service cost	$ 74,611	$ 68,385	$ 62,360
Interest	218,686	210,170	199,078
Changes of benefit terms	948	-	17,215
Differences between expected and actual experience[1]	(7,321)	19,666	(22,013)
Changes of assumptions	92,178	33,512	-
Benefit payments	(128,081)	(119,616)	(109,940)
Net change in total OPEB liability	251,021	212,117	146,700
Total OPEB liability-beginning	3,005,806	2,793,689	2,646,989
Total OPEB liability-ending (a)	$ 3,256,827	$ 3,005,806	$ 2,793,689
Plan fiduciary net position			
Contributions-employer	$ 100,909	$ 97,457	$ 105,983
Net investment income (loss)	269,380	330,708	(344)
Benefit payments	(128,081)	(119,616)	(109,940)
Administrative expense	(4,699)	(4,564)	(4,528)
Net change in Plan fiduciary net position	237,509	303,985	8,829
Plan fiduciary net position-beginning	2,438,862	2,134,877	2,143,706
Plan fiduciary net position-ending (b)	$ 2,676,371	$ 2,438,862	$ 2,134,877
Plan's net OPEB liability-ending (a)-(b)	$ 580,456	$ 566,944	$ 658,812
Plan fiduciary net position as a percentage of the total OPEB liability (b)/(a)	82.2%	81.1%	76.4%
Covered payroll	$ 2,057,565	$ 1,973,049	$ 1,876,946
Plan's net OPEB liability as a percentage of covered payroll	28.2%	28.7%	35.1%

(1) After the GASB Statement No. 74 valuation report was issued for the fiscal year June 30, 2017, the System's consulting actuary reclassified $12,450,000 of OPEB liability from the *Changes of Assumption* (revised from $45,962,000 to $33,512,000) to the *Differences Between Expected and Actual Experience* (revised from $7,216,000 to $19,666,000). However, this reclassification did not affect the recommended employer contribution rates or results of the OPEB valuation in total.

Schedule of Changes in Net OPEB Liability and Related Ratios (Continued)

Notes to Schedule:

Changes of Benefit Terms: The OPEB liability from the changes of benefit terms for the fiscal year ended June 30, 2016 is primarily due to providing retiree healthcare benefits to part-time employees who retired with 10 years of service but less than 10 years of service credit (refer to Note 3 – Postemployment Health Care Plan Description, Eligibility Requirement and Benefits Provided on page 33) while the June 30, 2018 increase is primarily as a result of the newly adopted enhanced benefits for Airport Peace Officers (APO) who elected to stay at LACERS Plan (refer to Note 2 – Retirement Plan Description, Tier 1 – Enhanced Benefits on page 29) as some APO Members may retire earlier than expected. Enhanced benefits became effective as of January 7, 2018.

Changes of Assumptions: The OPEB liability from the changes of assumptions for the fiscal year ended June 30, 2017 is primarily due to the lowered assumed investment rate of return, from 7.50% to 7.25%, while the June 30, 2018 increase is primarily due to the new actuarial assumptions adopted in the triennial experience study (July 1, 2014 through June 30, 2017), including revising the mortality tables from static to generational.

Schedule of Contribution History
(Dollars in Thousands)

Fiscal Year	Actuarially Determined Contributions (ADC)	Contributions in Relation to ADC	Contribution Deficiency	Covered Payroll	Contributions as a Percentage of Covered Payroll
2009	$ 95,122	$ 95,122	$ -	$1,832,796	5.2%
2010	96,511	96,511	-	1,827,864	5.3
2011	107,396	107,396	-	1,678,059	6.4
2012	115,209	115,209	-	1,715,197	6.7
2013	72,916	72,916	-	1,736,113	4.2
2014	97,841	97,841	-	1,802,931	5.4
2015	100,467	100,467	-	1,835,637	5.5
2016	105,983	105,983	-	1,876,946	5.7
2017	97,457	97,457	-	1,973,049	4.9
2018	100,909	100,909	-	2,057,565	4.9

Notes to Schedule:

Valuation Date Actuarially determined contribution rates are calculated as of June 30, two years prior to the end of the fiscal year in which the contributions are reported.

Methods and Assumptions Used to Determine Contribution Rates:

Actuarial Cost Method: Entry Age Actuarial Cost Method (level percent of payroll).

Amortization Method: Level Percent of Payroll.

Amortization Period: Multiple layers – closed amortization period.
Actuarial gains/losses are amortized over 15 years. Non-health related assumptions or method changes are amortized over 20 years. Health related assumptions or method changes are amortized over 15 years. Plan changes, including the 2009 Early Retirement Incentive Program (ERIP), are amortized over 15 years. Future ERIPs will be amortized over five years. Any actuarial surplus is amortized over 30 years. The existing layers on June 30, 2012, except those arising from the 2009 ERIP and the two Governmental Accounting Standards Board (GASB) Statements No. 25/27 layers, were combined and amortized over 30 years.

Asset Valuation Method: Fair 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. An Ad Hoc change was made in 2018 to combine the unrecognized returns and losses of prior years as of June 30, 2017 into one layer and recognize it evenly over six years from fiscal year 2017-18 through fiscal year 2022-23.

Actuarial Assumptions:

- Investment Rate of Return: 7.25%
- Inflation: 3.00%
- Real Across-the-Board Salary Increase: 0.50%

Schedule of Contribution History (Continued)

Notes to Schedule (Continued)

Methods and Assumptions Used to Determine Contribution Rates (Continued)

Projected Salary Increases[1]	Ranges from 3.90% to 10.00% based on years of service.
Mortality	Healthy: Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table (separate tables for males and females) projected generationally with the two-dimensional mortality improvement scale MP-2017.
	Disabled: Headcount-Weighted RP-2014 Disabled Retiree Mortality Table (separate tables for males and females) projected generationally with the two-dimensional mortality improvement scale MP-2017.

(1) Includes inflation at 3.00% as of June 30, 2018, plus across-the-board salary increase of 0.50% plus merit and promotional increases.

Schedule of Investment Returns
For the Fiscal Years Ended June 30

	2018	2017
Annual money-weighted rate of return, net of investment expenses	10.8%	15.2%

Note to Schedule:

The required disclosure about factors that significantly affect trends in the money-weighted rate of return is not provided as the rate was not available prior to fiscal year 2017. As additional years' money-weighted rate of return become available, the System will disclose factors that significantly affect trends in the rate of return.

SUPPLEMENTAL SCHEDULES

Schedule of Administrative Expense
For the Fiscal Year Ended June 30, 2018
(In Thousands)

	Retirement Plan	Postemployment Health Care Plan	Total
Personnel Services:			
Salaries	$ 9,571	$ 2,141	$ 11,712
Employee Benefits and Development	3,729	834	4,563
Total Personnel Services	13,300	2,975	16,275
Professional Services:			
Actuarial	280	63	343
Audit	76	17	93
Legal Counsel	482	108	590
Disability Evaluation	143	32	175
Retirees' Health Admin Consulting	-	715	715
Benefit Payroll Processing	203	45	248
Total Professional Services	1,184	980	2,164
Information Technology:			
Computer Hardware and Software	325	73	398
Computer Maintenance and Support	191	43	234
Total Information Technology	516	116	632
Leases:			
Office Space	696	156	852
Office Equipment	34	8	42
Total Leases	730	164	894
Other Expenses:			
Fiduciary Insurance	28	6	34
Educational and Due Diligence Travel	47	11	58
Office Expenses	276	62	338
Depreciation	313	70	383
Total Other Expenses	664	149	813
Total Administrative Expenses	$ 16,394	$ 4,384	$ 20,778

Schedule of Investment Fees and Expenses
For the Fiscal Year Ended June 30, 2018
(In Thousands)

	Assets Under Management	Fees and Expenses
Retirement Plan		
Investment Management Fees:		
Fixed Income Managers	$ 3,512,761	$ 4,840
Equity Managers	8,242,897	21,029
Subtotal Investment Management Fees	11,755,658	25,869
Other Investment Fees and Expenses:		
Private Equity Consulting Fees	N/A	654
Real Estate Consulting Fees	N/A	176
Other Consulting Fees	N/A	388
Investment Related Administrative Expenses	N/A	1,408
Subtotal Other Investment Fees and Expenses	N/A	2,626
Postemployment Health Care Plan		
Investment Management Fees:		
Fixed Income Managers	656,835	1,083
Equity Managers	1,541,304	4,704
Subtotal Investment Management Fees	2,198,139	5,787
Other Investment Fees and Expenses:		
Private Equity Consulting Fees	N/A	146
Real Estate Consulting Fees	N/A	39
Other Consulting Fees	N/A	87
Investment Related Administrative Expenses	N/A	315
Subtotal Other Investment Fees and Expenses	N/A	587
Total Investment Fees and Expenses excluding Private Equity and Real Estate	$ 13,953,797	$ 34,869
Private Equity Managers' Fees and Expenses:		
Retirement Plan	$ 1,522,628	$ 28,311
Postemployment Health Care Plan	284,710	6,333
Total Private Equity Managers' Fees and Expenses	$ 1,807,338	$ 34,644
Real Estate Managers' Fees and Expenses:		
Retirement Plan	$ 675,353	$ 6,883
Postemployment Health Care Plan	126,281	1,540
Total Real Estate Managers' Fees and Expenses	$ 801,634	$ 8,423
Total Assets Under Management and Fees and Expenses	$ 16,562,769 (1)	$ 77,936 (2)

(1) Excluding Security Lending Collateral assets of $795,076,000. Total Investments including Security Lending Collateral was $17,357,845,000.

(2) Included Investment Management Fees and Expenses of $76,213,000 and Investment Related Administrative Expenses of $1,723,000.

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Investment

LACERS
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

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Report on Investment Activity

December 3, 2018

Dear Members of the Board:

Presented below is a summary report of the Fund's investment activities for the fiscal year 2017-2018.

Market Overview

The 2018 fiscal year was another favorable period for the LACERS investment portfolio, characterized by strong global equity market returns and heightened volatility. For the one-year period ending June 30, 2018, the LACERS investment portfolio returned 9.2% (gross of fees).

The first quarter of the fiscal year continued a bullish trend across equity markets as anticipation for U.S. tax reform, which would benefit corporate earnings, increased. U.S. equities produced positive performance, with small cap equities leading the way. Non-U.S. equities, particularly in emerging markets, fared even better than U.S. equities with the assistance of a depreciating U.S. dollar and strong returns in China.

Global equity markets continued to produce positive performance during the second quarter of the fiscal year. The performance of U.S. equities received a boost by the approval of the U.S. tax reform bill. A strong U.S. labor market and better-than-expected economic growth provided support for the U.S. Federal Reserve to hike the federal funds rate a quarter-point to a range of 1.25% to 1.50%. Non-U.S. equities also performed well amid upbeat economic and corporate earnings data in certain developed European and Asian countries, as well as the broad emerging markets. Market volatility remained subdued while the U.S. dollar continued to depreciate.

With the start of the third quarter of the fiscal year and a new calendar year, the market faced a potential trade war between the U.S. and China and concerns over rising U.S. interest rates, which contributed to a spike in market volatility and downward pressure on investment returns. The Federal Reserve increased the federal funds rate another quarter-point to a range of 1.50% to 1.75% -- the highest since September 2008. Global markets experienced negative returns; particularly, the U.S. equities market produced its first negative quarter in over two years. Emerging markets were an exception and continued to produce positive performance due to strong earnings and GDP growth. Meanwhile, the U.S. dollar continued its downward slide relative to other currencies.

The U.S. equities market rebounded in the last quarter of the fiscal year, supported by strong corporate earnings growth. Solid U.S. economic data gave the Federal Reserve confidence to increase the federal funds rate another quarter-point to a range of 1.75% to 2.00%. Despite an appreciating U.S. dollar and the escalating trade war tension between the U.S. and China, non-U.S. equities managed to produce a slightly positive return.

While the 2018 fiscal year was a period of strong returns and volatility in the markets, LACERS' investment portfolio is constructed based on a long-term investment horizon and is well diversified in order to weather increases in market volatility in the future.

Investment Performance

LACERS primary investment objective is to maximize the return of the portfolio at a prudent level of risk to meet the obligations of the System. The Fund is managed on a total return basis over a long-term investment horizon. While the System recognizes the importance of capital preservation, it also recognizes that varying degrees of investment risk are generally rewarded with commensurate returns. Consequently, prudent risk-taking is warranted within the context of overall portfolio diversification, which is achieved through the System's strategic asset allocation policy.

LACERS investments are reported at fair value. The total portfolio was $17.0 billion on June 30, 2018, an increase of $1.3 billion over the prior fiscal year. The Fund realized a 9.2% (gross of fees) return for the fiscal year. Individual asset class gross returns were: U.S. equity, 15.4%; non-U.S. equity, 9.9%; core fixed income, -0.3%; credit opportunities, 1.8%; private equity, 13.9%; and real assets, 5.9%.

The total portfolio outperformed its policy benchmark by 60 basis points (gross of fees) for the fiscal year, mainly attributed to the relative outperformance of U.S. and non-U.S. equities, which outperformed their benchmarks by 60 and 260 basis points, respectively.

The Investment Results table presented on page 67 provides a summary of time-weighted rates of return based on fair value of assets by asset classes and for the total fund.

Policies, Procedures and Guidelines

During the fiscal year, the Board of Administration continued a comprehensive review of the LACERS Investment Policy that began in fiscal year 2014-2015. The Board approved most of the policy revisions on October 24, 2017, but deferred action on two specific sections: Private Equity Investment Policy and Emerging Investment Manager Policy. These two sections will be reviewed at the next annual review of the Investment Policy. Additionally, the Board, with the assistance of staff and the General Fund Consultant, conducted an asset-liability study, resulting in the adoption of a new asset allocation policy on April 10, 2018. The new asset allocation targets are presented in the pie chart on page 70.

Investment Manager Contract Awards and Renewals

As presented in the table on page 68, contracts with seven investment managers of publicly traded securities were awarded or renewed during the fiscal year: two with active U.S. equity managers, a U.S. index manager, a core fixed income manager, a credit opportunities manager, a real estate investment trust securities (REITS) manager, and a long-only commodities manager.

Private Investments

LACERS approved 10 private equity and venture capital partnerships totaling $207.5 million of committed capital as presented in the table on page 68.

Respectfully submitted,

Rodney L. June
Chief Investment Officer

Outline of Investment Policies
Fiscal Year 2017-2018

The Los Angeles City Employees' Retirement System's (LACERS, or the System) general investment goals are consistent with the City Charter citations and State Constitution and are stated below:

- The overall goal of the System's investment assets is to provide plan participants with post-retirement benefits as set forth in the System documents. This will be accomplished through a carefully planned and executed investment program.
- The System's investment program shall comply, at all times, with existing and future applicable City, state and federal regulations. Investment performance data is calculated in conformance with Global Investment Performance Standards (GIPS).
- All transactions undertaken will be for the sole benefit of the System's participants and beneficiaries and for the exclusive purpose of providing benefits to them and defraying reasonable administrative expenses associated with the System.
- The System has a long-term investment horizon, and utilizes an asset allocation that encompasses a strategic, long run perspective of capital markets. It is recognized that a strategic long-run asset allocation plan implemented in a consistent and disciplined manner will be the major determinant of the System's investment performance.
- Investment actions are expected to comply with "prudent person" standards as described: "…with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent man acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims."

Investment Results

Annualized asset class investment returns compared to policy benchmarks:

Asset Class / Benchmark	Annualized[1] (gross of fees)		
	1 Yr. (%)	3 Yrs. (%)	5 Yrs. (%)
U.S. Equity	**15.4**	**11.7**	**13.4**
Russell 3000	14.8	11.6	13.3
Non-U.S. Equity	**9.9**	**7.0**	**7.7**
MSCI ACWI ex U.S.	7.3	5.1	6.0
Private Equity	**13.9**	**10.5**	**11.9**
Russell 3000 plus 300 bps	18.2	14.9	16.7
Core Fixed Income[2]	**-0.3**	**2.1**	**2.8**
Bloomberg Barclays U.S. Aggregate	-0.4	1.7	2.3
Credit Opportunities	**1.8**	**4.8**	**5.2**
Credit Opportunities Blend[3]	1.1	5.3	5.4
Real Assets	**5.9**	**6.2**	**7.7**
CPI plus 5%	8.0	6.9	6.6
LACERS Total Fund	**9.2**	**7.6**	**8.7**
LACERS Policy Benchmark	8.6	7.4	8.4

(1) Time-weighted rate of return based on fair value of assets for all asset classes.
(2) Fixed income mandate changed from core-plus to core on July 1, 2012. Returns reflect core mandate only.
(3) 65% Bloomberg Barclays U.S. Corp High Yield 2% Capped/35% JP Morgan EMBI-Global Diversified.

Investment Contract Activity

Contracts with investment managers of publicly traded securities awarded/renewed/extended:

Firms	Mandate
AJO, LP	Active U.S. Large Cap Value Equities
Bain Capital Credit, L.P.	Active U.S. Bank Loan
Blackrock Institutional Trust Company, N.A.	Multi-Passive Index
CenterSquare Investment Management, LLC	U.S. REIT
CoreCommodity Management, LLC	Active Long-Only Commodities
Neuberger Berman Investment Advisers LLC	Active Core Fixed Income
PanAgora Asset Management, Inc.	Active U.S. Small Cap Value Equities

New private equity and real estate partnerships:

Investment Funds	Mandate
American Securities Fund VIII, L.P.	Private Equity – Buyout
Ascribe Opportunities IV	Private Equity – Distressed Debt
Astra Partners I	Private Equity – Buyout
GTCR Fund XII, L.P.	Private Equity – Buyout
Mill Point Capital Partners, L.P.	Private Equity – Buyout
New Mainstream (NMS) Fund III, L.P.	Private Equity – Buyout
Platinum Equity Small Cap Fund, L.P.	Private Equity – Special Situations
Thoma Bravo Discover Fund II, L.P.	Private Equity – Buyout
Thomas Bravo Fund XIII	Private Equity – Buyout
1315 Capital Fund II, L.P.	Private Equity – Growth Equity

Investment Contract Activity

Contracts with consultants awarded/renewed/extended:

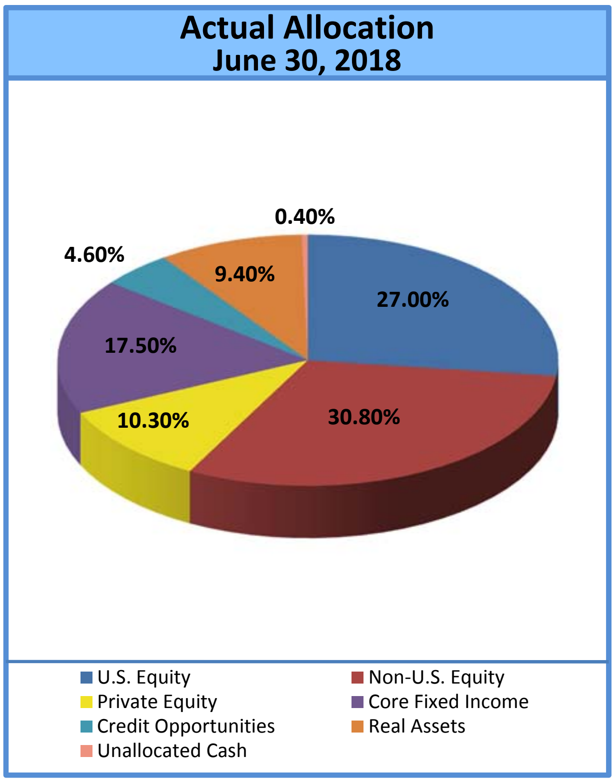
Firms	Mandate
Abel Noser LLC	Transition Management Services
BlackRock Institutional Trust Company, N.A.	Transition Management Services
Citigroup Global Markets Inc.	Transition Management Services
Institutional Shareholder Services Inc. (ISS)	Proxy Voting Services
Loop Capital Markets	Transition Management Services
Macquarie Capital (USA) Inc.	Transition Management Services
Penserra Transition Management LLC	Transition Management Services
Portfolio Advisors, LLC	Private Equity Consulting Services
The Northern Trust Company	Master Custody Services, Securities Lending Services, Compliance Analyst Services, Risk Services, Integrated Disbursement Services, Private Monitor Analytical, and Fair Value Reporting Tool

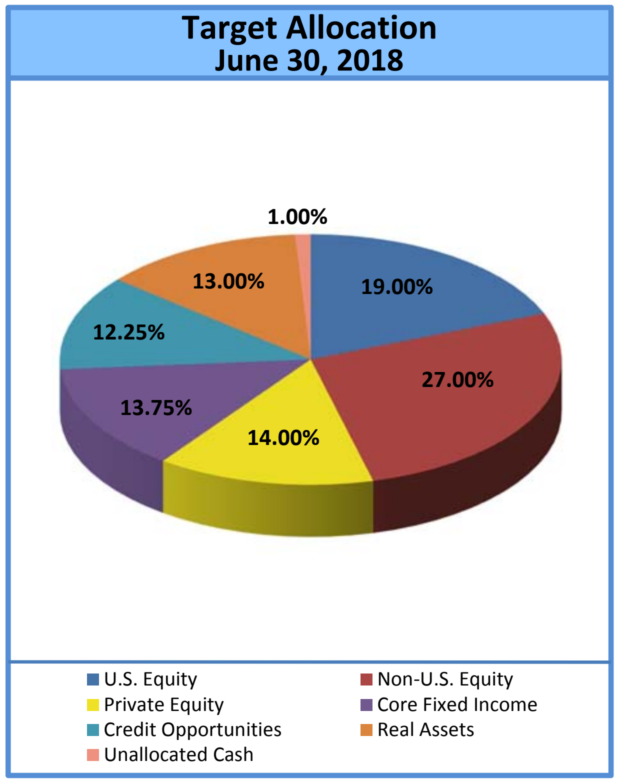
Asset Allocation[1]
For the Fiscal Years Ended June 30

	Actual Allocation			Target Allocation	
	2018	2017		2018	2017
U.S. Equity	27.00%	26.20%	U.S. Equity	19.00%	24.00%
Non-U.S. Equity	30.80	31.30	Non-U.S. Equity	27.00	29.00
Private Equity[2]	10.30	10.00	Private Equity	14.00	12.00
Core Fixed Income	17.50	17.40	Core Fixed Income	13.75	19.00
Credit Opportunities	4.60	5.00	Credit Opportunities	12.25	5.00
Real Assets	9.40	9.70	Real Assets	13.00	10.00
Unallocated Cash	0.40	0.40	Unallocated Cash	1.00	1.00
Total	100.00%	100.00%	**Total**	100.00%	100.00%

(1) A new Asset Allocation policy was adopted on April 10, 2018 (refer to policies, procedures, and guidelines on page 66).

(2) The underweight to Private Equity is allocated to U.S. Equity. Private Equity cannot be rebalanced on demand since the general partners control the timing of funding and distributions.





List of Largest Assets Held by Fair Value

Displayed below are the ten largest holdings in each asset class along with their fair and share/par values as of June 30, 2018. A complete listing of the System's top 100 holdings is available on www.LACERS.org.

Largest U.S. Equity Holdings

	Shares	Asset Description	Fair Value (in US$)
1.	767,604	Apple Inc.	$ 142,091,176
2.	1,197,725	Microsoft Corp.	118,107,662
3.	62,951	Amazon Inc.	107,004,110
4.	374,247	Facebook Inc.	72,723,677
5.	658,565	Exxon Mobil Corp.	54,483,082
6.	507,927	JP Morgan Chase & Co.	52,925,993
7.	47,423	Alphabet Inc. Class C	52,907,470
8.	434,852	Johnson & Johnson	52,764,942
9.	46,640	Alphabet Inc. Class A	52,665,422
10.	274,748	Bershire Hathaway Class B	51,281,714
		Total	$ 756,955,248

Largest Non-U.S. Equity Holdings

	Shares	Asset Description	Fair Value (in US$)
1.	993,800	Tencent Hldgs Ltd.	$ 49,883,492
2.	610,595	Nestle SA	47,288,137
3.	240,470	Alibaba Group Holding Ltd.	44,614,399
4.	4,383,303	AIA Group Ltd.	38,327,258
5.	885,662	Samsung Electronic	37,071,451
6.	333,284	Bayer AG	36,714,016
7.	1,000,658	Diageo PLC	35,960,852
8.	154,711	Roche Holding AG	34,363,776
9.	36,658,952	China Construction Bank	33,876,629
10.	1,689,152	DBS Group Holdings	32,965,409
		Total	$ 391,065,419

List of Largest Assets Held by Fair Value

Largest U.S. Fixed Income Holdings(1)

	Par Value	Asset Description	Fair Value (in US$)
1.	70,000,000	United States Treas Bills 0.00% Due 09/06/2018	$ 69,759,060
2.	60,472,000	United States Treas Notes Inflation Index 0.25% Tb Due 01/15/2025	62,223,739
3.	54,420,000	FHLB Disc NT 07/02/2018 0.00% Dic NTS Due 02/07/2018	54,420,000
4.	51,118,000	United States Treas Notes Inflation Index 0.125% Tb Due 07/15/2024	52,437,723
5.	48,060,000	United States Treas Bills 2.75% Due 04/30/2023	48,106,955
6.	33,662,000	United States Treas Bds Index Linked 2.00% Due 01/15/2026	46,569,010
7.	43,900,000	United States Treas Bds Inflation Note 0.375% Due 07/15/2025	45,562,395
8.	42,750,000	United States Treas Bds Note 0.125% Inflation Index Due 07/15/2026	42,813,652
9.	41,500,000	United States Treas Bill Due 09/20/2018	41,327,070
10.	41,135,000	United States Treas Note 2.75% Due 05/31/2023	41,186,419
		Total	$ 504,406,023

Largest Non-U.S. Fixed Income Holdings(1)

	Par Value (in local currency)	Asset Description	Fair Value (in US$)
1.	11,850,000	Government of Spain 2.90% Due 10/31/2046	$ 15,108,152
2.	9,885,000	Australia Commonwealth Sr Nt 3.00% Due 03/21/2047	7,170,346
3.	6,245,000	Anheuser-Busch 4.75% Due 04/15/2058	6,099,929
4.	104,150,000	Republic of South Africa 6.50% Due 02/28/2041	5,422,479
5.	5,365,000	Vodafone Group PLC 3.75% Due 01/16/2024	5,319,151
6.	4,955,000	Royal Bank of Scotland Group PLC 3.498% Due 05/15/2023	4,799,948
7.	4,793,322	Anheuser-Busch 3.65% Due 02/21/2026	4,692,463
8.	4,575,000	Barclay PLC 4.972% Due 05/16/2029	4,532,526
9.	4,624,620	Santander UK PLC 2.125% Due 11/03/2020	4,489,531
10.	2,510,000	Federation of Russia 12.75% Due 06/24/2028	4,101,491
		Total	$ 61,736,016

(1) The U.S. Fixed Income and Non-U.S. Fixed Income holdings represent the fair value of LACERS separate accounts and the fair value of LACERS ownership in mutual fund-like accounts.

Schedules of Fees and Commissions

Schedule of Fees

(In Thousands)

	2018		2017	
	Assets Under Management	Fees	Assets Under Management	Fees
Investment Manager Fees:				
Fixed Income Managers	$ 4,169,249	$ 5,923	$ 3,823,219	$ 5,790
Equity Managers	9,784,548	25,734	9,022,033	21,759
Real Estate Managers	801,634	8,422	834,848	9,137
Private Equity Managers	1,807,338	34,644	1,578,649	31,837
Total	$ 16,562,769	$ 74,723	$ 15,258,749	$ 68,523
Investment Consulting Fees	N/A	$ 1,490	N/A	$ 1,446
Investment Related Administrative Expense	N/A	1,723	N/A	1,875
Total	N/A	$ 3,213	N/A	$ 3,321

Schedule of Top Ten Brokerage Commissions

	Broker	Shares Traded	Commissions	Commission per Share
1.	Morgan Stanley and Co., LLC	177,138,513	$ 251,276	$ 0.001
2.	J.P. Morgan Securities Plc	32,735,945	180,835	0.006
3.	Goldman, Sachs and Co.	44,148,078	158,224	0.004
4.	Merrill Lynch International Limited	68,051,412	153,333	0.002
5.	Citigroup Global Markets Inc.	36,324,961	114,562	0.003
6.	Daiwa Capital Markets America Inc.	5,527,200	112,291	0.020
7.	Societe Generale London Branch	15,830,927	109,839	0.007
8.	Liquidnet Inc.	8,560,229	105,149	0.012
9.	C.L. King & Associates, Inc.	4,440,529	88,811	0.020
10.	Deutsche Bank Securities Inc.	76,374,439	83,861	0.001
	Total	469,132,233	1,358,181	0.003
	Total - Other Brokers(1)	700,402,985	2,450,615	0.003
	Grand Total	1,169,535,218	$ 3,808,796	$ 0.003

(1) Over-the-counter (OTC) Brokers excluded because there is no stated commission.

LACERS has commission recapture arrangements with brokerage firms. For the current fiscal year, LACERS recaptured a total of $9,220 commission credit from Cowen, which was rebated to LACERS in cash.

Investment Summary
As of June 30, 2018

Type of investment	Fair Value	% of Total Fair Value	Domestic Fair Value	Foreign Fair Value
Fixed Income				
Government bonds	$ 1,397,966,190	8.06%	$ 1,173,467,413	$ 224,498,777
Government agencies	71,806,823	0.41	41,061,602	30,745,221
Municipal / provincial bonds	7,360,492	0.04	2,526,536	4,833,956
Corporate bonds	1,118,396,718	6.44	834,099,135	284,297,583
Bank loans	5,397,039	0.03	5,397,039	-
Government mortgage bonds	377,823,234	2.18	377,823,234	-
Commercial mortgage bonds	46,791,352	0.27	46,791,352	-
Opportunistic debts	109,930,875	0.63	96,314,887	13,615,988
Other fixed income (Common Funds Assets)	1,033,949,908	5.96	1,033,949,908	-
Derivative Instruments	(173,390)	-	(33,344)	(140,046)
Total Fixed Income	**4,169,249,241**	**24.02**	**3,611,397,762**	**557,851,479**
Equities				
Common stock				
Basic industries	1,238,135,532	7.13	486,384,938	751,750,594
Capital goods industries	551,108,430	3.18	134,494,326	416,614,104
Consumer & services	2,191,161,257	12.62	957,156,901	1,234,004,356
Energy	853,206,155	4.92	416,123,342	437,082,813
Financial services	1,678,531,232	9.67	667,771,107	1,010,760,125
Health care	1,017,634,570	5.86	654,193,702	363,440,868
Information technology	1,756,797,022	10.12	1,116,137,530	640,659,492
Real Estate	435,519,141	2.51	263,900,594	171,618,547
Miscellaneous	7,026,082	0.04	4,529,579	2,496,503
Total Common Stock	**9,729,119,421**	**56.05**	**4,700,692,019**	**5,028,427,402**
Preferred stock	42,316,896	0.24	4,040,758	38,276,138
Stapled securities	11,937,343	0.07	-	11,937,343
Derivative Instruments	1,173,656	0.01	(1,585,541)	2,759,197
Total Equities	**9,784,547,316**	**56.37**	**4,703,147,236**	**5,081,400,080**
Real Estate	**801,634,029**	**4.62**	**777,908,778**	**23,725,251**
Private Equity				
Buyout	982,279,386	5.66	716,713,746	265,565,640
Distressed debt	116,511,690	0.67	84,247,654	32,264,036
Mezzanine	1,060,691	0.01	1,060,691	-
Special Situations	210,490,618	1.21	158,279,383	52,211,235
Venture capital	496,995,670	2.86	441,033,629	55,962,041
Total Private Equity	**1,807,338,055**	**10.41**	**1,401,335,103**	**406,002,952**
Security Lending Collateral	**795,076,743**	**4.58**	**734,976,280**	**60,100,463**
Total Fund[(1)]	**$ 17,357,845,384**	**100.00%**	**$11,228,765,159**	**$ 6,129,080,225**

(1) Total Fund includes securities lending collateral, but excludes cash and cash equivalents and adjustments to cash.

Advisory/Consulting/Custody Services

Investment Advisors

U.S. Equity

AJO
EAM Investors
PanAgora Asset Management
Principal Global Investors
RhumbLine Advisers

Non-U.S. Equity

AQR Capital Management
Axiom International Investors
Barrow, Hanley, Mewhinney & Strauss
Dimensional Fund Advisors
Lazard Asset Management
MFS Institutional Advisors
Oberweis Asset Management
Quantitative Management Associates
State Street Global Advisors

Fixed Income

LM Capital Group
Loomis Sayles & Company
Neuberger Berman
Robert W. Baird & Co.
State Street Global Advisors

Credit Opportunities

Aegon USA Investment Management
Prudential Investment Management
Bain Capital Credit

Public Real Assets

CenterSquare Investment Management
CoreCommodity Management
Dimensional Fund Advisors

Cash & Short-Term

The Northern Trust Company

Real Estate

Almanac Realty
Apollo Global Real Estate
Asana Partners
Berkshire Group
Bristol Group
Bryanston Realty Partners
Buchanan Street Partners
Canyon-Johnson Urban Funds
CIM Group
CityView
Clarion Partners
Colony Investors
Cornerstone Real Estate Advisors
DLJ Real Estate Capital Partners
DRA Advisors
Gerrity Group
Hancock Timber Resource Group
Heitman Asia-Pacific Property Investors
Hunt Realty Investments
Integrated Capital
Invesco Real Estate
Jamestown
JP Morgan
LaSalle Investment Management
Lone Star Funds
Mesa West Capital
Morgan Stanley
Pacific Coast Capital Partners
Paladin Realty Partners
Phoenix Realty Group
Principal Real Estate Investors
Realty Associates
Standard Life Investments
Stockbridge Real Estate
Torchlight Investors
Walton Street Real Estate

Private Equity

1315 Capital Management
ABRY Partners
Acon-Bastion Partners
Advent International
AION Capital Partners
Alchemy Partners
American Securities
Angeleno Group
Angeles Equity
Apollo Management
Ascribe Capital
Astorg
Austin Ventures

Advisory/Consulting/Custody Services

Investment Advisors (Continued)

Private Equity (Continued)

Avenue Capital Group
Bain Capital
Baring Private Equity Asia Limited
Black Diamond Capital Management
Blackstone
Blue Sea Capital
Brentwood Associates
Cardinal Health Partners
Carlyle Group
Carpenter & Company
CenterGate Capital
Charterhouse Capital Partners
CHS Capital
CIE Management IX Ltd
Coller International Partners
Craton Equity Investors
CVC Capital Partners
Defy Partners
DFJ
EIG Global Energy Partners
Element Partners
Encap Energy Capital
Energy Capital Partners
Enhanced Equity
Essex Woodland Health Ventures
First Israel Mezzanine Investors
First Reserve Corporation
Gilde Buy Out Partners
Glendon Capital Management
GTCR
Halifax Capital
Harvest Partners
Hellman & Friedman Investors
High Road Capital Partners
Hony Capital
Incline Equity
Insight Venture
Institutional Venture Partners
The Jordan Company
JH Whitney & Co.
Kelso & Company
Khosla Ventures
KKR
KPS Investors
Leonard Green & Partners
Levine Leichtman Capital Partners
Lindsay Goldberg & Bessemer
Longitude Capital Partners
Madison Dearborn Partners
Newbridge Asia
NGEN Partners
New Water Capital Partners
NGP Natural Resources
NMS Capital
Nogales Investors
Menlo Ventures
Mill Point Capital
Nautic Partners
New Enteprise Associates
New Mountain Partners
Nordic Capital
Oak HC/FT Partners
Oak Investment Partners
Oaktree Capital Management
Onex Partners
Palladium Equity Partners
Permira
Pharos Capital Partners
Platinum Equity
Polaris Venture Partners
Providence Equity Partners
Rustic Canyon/Fontis Partners
Saybrook Capital
Searchlight Capital Partners
Spark Capital
Spire Capital
SSG Capital Partners
St. Cloud Capital
StarVest Partners
StepStone Group
Sterling Partners
Stripes Group
Sunstone Partners (Formerly TC Growth Partners)
TA Associates
Technology Crossover Ventures
TCW/Crescent Mezzanine
Texas Pacific Group
Thoma Bravo
Trident Capital
Upfront Ventures
VantagePoint Venture Partners
Vestar Capital Partners
Vicente Capital Partners
Vista Equity Partners
Weston Presidio
Wynnchurch Capital
Yucaipa American Alliance

Advisory/Consulting/Custody Services

Investment Advisors (Continued)

Consultants

NEPC, LLC
Portfolio Advisors
The Townsend Group

Custodian

The Northern Trust Company

Transition Managers

Abel Noser LLC
Blackrock Institutional Trust Company, N.A.
Citigroup Global Markets Inc.
Loop Capital Markets
Macquarie Capital (USA) Inc.
Penserra Transition Management LLC

Proxy Voting Services

Institutional Shareholder Services Inc. (ISS)

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Actuarial

Actuarial Valuation Summary

Summary of Significant Valuation Results

	June 30, 2018	June 30, 2017	Change
I. Total Membership			
a. Active Members	26,042	25,457	2.3 %
b. Pensioners and Beneficiaries	19,379	18,805	3.1 %
II. Valuation Salary			
a. Total Annual Projected Payroll	$ 2,177,687,102	$ 2,062,316,129	5.6 %
b. Average Projected Monthly Salary	6,969	6,751	3.2 %
III. Benefits to Current Retirees and Beneficiaries[1]			
a. Total Annual Benefits	$ 880,071,707	$ 819,515,912	7.4 %
b. Average Monthly Benefit Amount	3,784	3,632	4.2 %
IV. Total System Assets[2]			
a. Actuarial Value	$ 16,687,907,767	$ 15,686,973,131	6.4 %
b. Market Value	16,989,616,344	15,689,570,310	8.3 %
V. Unfunded Actuarial Accrued Liability (UAAL)			
a. Retirement Benefits	$ 5,962,143,593[3]	$ 5,279,854,069[4]	12.9 %
b. Health Subsidy Benefits	627,984,336[3]	567,348,102[4]	10.7 %

(1) Includes July COLA.

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

(3) Includes liabilities for enhanced benefits for Airport Peace Officers (APO) effective January 7, 2018.

(4) Excludes liabilities for enhanced benefits for APO effective January 7, 2018.

	FY 2019-20[1],[2]		FY 2018-19[1],[2]		Difference	
VI. Budget Items	Tier 1	Tier 3	Tier 1	Tier 3	Tier 1	Tier 3
a. Retirement Benefits						
1. Normal Cost as a Percent of Pay	6.72%	3.78%	6.70%	3.65%	0.02 %	0.13 %
2. Amortization of UAAL	18.34%	18.34%	16.55%	16.55%	1.79 %	1.79 %
3. Total Retirement Contribution	25.06%	22.12%	23.25%	20.20%	1.81 %	1.92 %
b. Health Subsidy Benefits						
1. Normal Cost as a Percent of Pay	3.36%	4.11%	3.59%	4.21%	(0.23)%	(0.10)%
2. Amortization of UAAL	1.47%	1.47%	1.47%	1.47%	0.00 %	0.00 %
3. Total Health Subsidy Contribution	4.83%	5.58%	5.06%	5.68%	(0.23)%	(0.10)%
c. Total Contribution (a+b)	29.89%	27.70%	28.31%	25.88%	1.58 %	1.82 %

(1) Contributions are assumed to be received by LACERS on July 15.

(2) After reflecting enhanced benefits for APO effective January 7, 2018.

	June 30, 2018[1]	June 30, 2017	Difference
VII. Funded Ratio			
(Based on Valuation Value of Assets)			
a. Retirement Benefits	70.1%	71.4%	(1.3)%
b. Health Subsidy Benefits	80.7%	81.1%	(0.4)%
c. Total	71.6%	72.8%	(1.2)%
(Based on Market Value of Assets)			
d. Retirement Benefits	71.4%	71.4%	0.0%
e. Health Subsidy Benefits	82.2%	81.1%	1.1%
f. Total	72.9%	72.8%	0.1%

(1) After reflecting enhanced benefits for APO effective January 7, 2018.

Summary of Significant Valuation Results (Continued)

	June 30, 2018	June 30, 2017	Change
VIII. Net Pension Liability[1]			
Total Pension Liability	$ 19,944,579,058	$ 18,458,187,953	8.1 %
Plan Fiduciary Net Position	(14,235,230,528)	(13,180,515,725)	8.0 %
Net Pension Liability	$ 5,709,348,530	$ 5,277,672,228	8.2 %
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	71.4%	71.4%	0.0 %

(1) Refer to the Schedule of Changes in Net Pension Liability and Related Ratios on page 88.

	June 30, 2018	June 30, 2017	Change
IX. Net OPEB Liability[1]			
Total OPEB Liability	$ 3,256,827,847	$ 3,005,806,234	8.4%
Plan Fiduciary Net Position	(2,676,371,615)	(2,438,861,850)	9.7%
Net OPEB Liability	$ 580,456,232	$ 566,944,384	2.4%
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	82.2%	81.1%	1.1%

(1) Refer to the Schedule of Changes in Net OPEB Liability and Related Ratios on page 104.

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Actuarial Certification

November 7, 2018

This is to certify that Segal Consulting (Segal) has conducted an actuarial valuation of the Los Angeles City Employees' Retirement System (LACERS or the System) retirement program as of June 30, 2018, in accordance with generally accepted actuarial principles and practices. In particular, it is our understanding that the assumptions and methods used for funding purposes meet the parameters set by the Actuarial Standards of Practice (ASOPs). Actuarial valuations are performed annually for this retirement program with the last valuation completed on June 30, 2017. The actuarial calculations presented in this report have been made on a basis consistent with our understanding of the historical funding methods used in determination of the liability for retirement benefits.

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

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

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

Segal prepared all of the supporting schedules in the Actuarial Section of the Comprehensive Annual Financial Report (CAFR) and certain supporting schedules in the Financial Section, based on the results of the June 30, 2018 actuarial valuation. A listing of the supporting schedules Segal prepared for inclusion in the Financial Section as Required Supplementary Information prescribed by GASB, and in the Actuarial Section, is provided below:

<u>Financial Section</u>
1) Schedule of Net Pension Liability*
2) Schedule of Changes in Net Pension Liability and Related Ratios*
3) Schedule of Contribution History*

<u>Actuarial Section</u>
4) Summary of Significant Valuation Results
5) Active Member Valuation Data
6) Retirees and Beneficiaries Added to and Removed from Retiree Payroll
7) Schedule of Funded Liabilities by Type
8) Schedule of Funding Progress
9) Actuarial Analysis of Financial Experience
10) Actuarial Balance Sheet
11) Schedule of Changes in Net Pension Liability and Related Ratios*
12) Projection of Pension Plan's Fiduciary Net Position for Use in Calculation of Discount Rate of 7.25% and Preparation of GASB 67 Report as of June 30, 2018*

* Source: Segal's GASB Statement No. 67 valuation report as of June 30, 2018.

Actuarial Certification (Continued)

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

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

Andy Yeung

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

Retirement Benefits Valuation

Active Member Valuation Data

Member Population

Valuation Date	Active Members[1]	Covered Payroll[2]	Annual Average Pay[2]	Change in Annual Average Pay (%)
06/30/2009	30,065[3]	$1,816,171,212[4]	$65,632[4]	0.3
06/30/2010	26,245	1,817,662,284	69,257	5.5
06/30/2011	25,449	1,833,392,381	72,042	4.0
06/30/2012	24,917	1,819,269,630	73,013	1.3
06/30/2013	24,441	1,846,970,474	75,569	3.5
06/30/2014	24,009	1,898,064,175	79,056	4.6
06/30/2015	23,895	1,907,664,598	79,835	1.0
06/30/2016	24,446	1,968,702,630	80,533	0.9
06/30/2017	25,457	2,062,316,129	81,012	0.6
06/30/2018	26,042	2,177,687,102	83,622	3.2

(1) Includes non-vested Members.
(2) Reflects annualized salaries for part-time Members.
(3) Before reclassifying the 2,393 Early Retirement Incentive Program (ERIP) electing active Members as retired under the program.
(4) After ERIP.

Retirees and Beneficiaries Added to and Removed from Retiree Payroll[1]

Valuation Date	No. of New Retirees/ Beneficiaries	Annual Allowances Added[2]	No. of Retirees/ Beneficiaries Removed	Annual Allowances Removed	No. of Retirees/ Beneficiaries at 6/30	Annual Allowances at 6/30	Percent Increase in Annual Allowances	Average Annual Allowance
06/30/2009	632	$36,887,854	616	$17,386,042	14,991	$521,859,396	3.9%	$34,812
06/30/2010	2,893[3]	144,594,918[3]	620	17,604,486	17,264	648,849,828	24.3	37,584
06/30/2011	528	24,282,965	595	16,585,589	17,197	656,547,204	1.2	38,178
06/30/2012	620	38,314,256	594	17,986,700	17,223	676,874,760	3.1	39,301
06/30/2013	772	40,966,952	633	18,776,770	17,362	699,064,942	3.3	40,264
06/30/2014	831	38,666,905	661	21,175,777	17,532	716,556,070	2.5	40,871
06/30/2015	1,083	55,849,106	683	22,013,426	17,932	750,391,750	4.7	41,847
06/30/2016	1,082	51,056,286	657	23,092,610	18,357	778,355,426	3.7	42,401
06/30/2017	1,142	65,583,105	694	24,422,619	18,805	819,515,912	5.3	43,580
06/30/2018	1,312	86,917,553	738	26,361,758	19,379	880,071,707	7.4	45,414

(1) Does not include Family Death Benefit Plan beneficiaries. Table is based on valuation data.
(2) Includes the COLA granted in July.
(3) Large increase primarily due to accelerated retirements stimulated by the City's Early Retirement Incentive Program (ERIP).

Schedule of Funded Liabilities by Type

For Years Ended June 30
(Dollars in Thousands)

	Aggregate Actuarial Accrued Liabilities For				Portion of Aggregate Accrued Liabilities Covered by Reported Assets		
Valuation Date	Active Member Contributions	Retirees, Beneficiaries & Inactive/Vested	Active Members	Valuation Value of Assets	Active Member Contributions	Retirees, Beneficiaries & Inactive/Vested	Active Members
06/30/2009[1]	$1,282,663	$7,356,302	$3,403,019	$9,577,747	100.0%	100.0%	27.6%
06/30/2010	1,379,098	7,507,945	3,707,982	9,554,027	100.0	100.0	18.0
06/30/2011	1,474,824	7,765,071	4,151,809	9,691,011	100.0	100.0	10.9
06/30/2012	1,625,207	7,893,684	4,875,068	9,934,959	100.0	100.0	8.5
06/30/2013	1,757,195	8,066,564	5,057,904	10,223,961	100.0	100.0	7.9
06/30/2014	1,900,068	8,700,896	5,647,889	10,944,751	100.0	100.0	6.1
06/30/2015	2,012,378	9,118,166	5,779,452	11,727,161	100.0	100.0	10.3
06/30/2016	2,137,269	9,439,001	5,848,726	12,439,250	100.0	100.0	14.8
06/30/2017	2,255,048	10,164,403	6,038,737	13,178,334	100.0	100.0	12.6
06/30/2018	2,354,026	11,079,053	6,511,500	13,982,435	100.0	100.0	8.4

[1] Based on revised June 30, 2009 valuation.

Schedule of Funding Progress

For Years Ended June 30
(Dollars in Thousands)

Valuation Date	Valuation Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b)-(a)	Funded Ratio (a)/(b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b)-(a)]/(c)
06/30/2009[1]	$9,577,747	$12,041,984	$2,464,237	79.5%	$1,816,171	135.7%
06/30/2010	9,554,027	12,595,025	3,040,998	75.9	1,817,662	167.3
06/30/2011	9,691,011	13,391,704	3,700,693	72.4	1,833,392	201.9
06/30/2012	9,934,959	14,393,959	4,459,000	69.0	1,819,270	245.1
06/30/2013	10,223,961	14,881,663	4,657,702	68.7	1,846,970	252.2
06/30/2014	10,944,751	16,248,853	5,304,102	67.4	1,898,064	279.5
06/30/2015	11,727,161	16,909,996	5,182,835	69.4	1,907,665	271.7
06/30/2016	12,439,250	17,424,996	4,985,746	71.4	1,968,703	253.3
06/30/2017	13,178,334	18,458,188	5,279,854	71.4	2,062,316	256.0
06/30/2018	13,982,435	19,944,579	5,962,144	70.1	2,177,687	273.8

[1] Based on revised June 30, 2009 valuation.

Actuarial Analysis of Financial Experience

Development of Unfunded Actuarial Accrued Liability
for Year Ended June 30, 2018

1. Unfunded actuarial accrued liability at beginning of year	$ 5,279,854,069
2. Normal cost at beginning of year	352,282,612
3. Expected contributions at beginning of year[1]	(684,971,324)
4. Interest	358,669,488
5. Expected unfunded actuarial accrued liability	5,305,834,845
6. Changes due to net experience loss[2]	147,418,362
7. Changes due to new actuarial assumptions	483,717,164
8. Changes due to APO Enhanced Tier 1	25,173,222
9. Unfunded actuarial accrued liability at end of year	$ 5,962,143,593

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

[2] The breakdown of the net experience loss is as follows:

Loss due to actual contributions less than expected (with interest to end of year)	$ 14,035,442
Investment gain on smoothed value of assets	(11,346,787)
Loss due to higher than expected salary increases for continuing actives	132,619,617
Gain due to lower than expected COLAs granted to retirees and beneficiaries	(19,600,829)
Other losses on demographic experience	31,710,919
Net loss	$ 147,418,362

Actuarial Balance Sheet

June 30, 2018

Assets		
1. Valuation value of assets ($16,989,616,344 at market value as reported by LACERS and $16,687,907,767 at actuarial value[1])		$ 13,982,435,465
2. Present value of future normal costs		
Employee	$1,791,352,447	
Employer	1,091,131,372	
Total		2,882,483,819
3. Unfunded actuarial accrued liability		5,962,143,593
4. Present value of current and future assets		$ 22,827,062,877
Liabilities		
5. Present value of future benefits		
Retired Members and beneficiaries		$ 10,778,202,813
Inactive Members		485,374,682
Active Members		11,563,485,382
Total		$ 22,827,062,877

[1] Market and actuarial values of assets include assets for Retirement, Health, Family Death, and Larger Annuity Benefits.

Schedule of Changes in Net Pension Liability and Related Ratios(1)

For Years Ended June 30
(Dollars in Thousands)

	2018	2017	2016	2015	2014	2013
Total Pension Liability						
Service cost	$ 352,283	$ 340,759	$ 322,574	$ 322,380	$ 317,185	$ 312,372
Interest	1,332,878	1,302,278	1,263,556	1,215,151	1,149,966	1,112,561
Changes of benefit terms	25,173	-	-	-	-	-
Differences between expected and actual experience	144,224	(146,474)	(300,813)	(135,821)	(164,247)	(235,829)
Changes of assumptions	483,717	340,718	-	-	785,439	-
Benefit payments, including refunds of Member contributions	(851,885)	(804,089)	(770,317)	(740,567)	(721,153)	(701,400)
Net change in total pension liability	1,486,390	1,033,192	515,000	661,143	1,367,190	487,704
Total pension liability-beginning	18,458,188	17,424,996	16,909,996	16,248,853	14,881,663	14,393,959
Total pension liability-ending (a)	$ 19,944,578	$ 18,458,188	$ 17,424,996	$ 16,909,996	$ 16,248,853	$ 14,881,663
Plan fiduciary net position						
Contributions-Employer	$ 450,195	$ 453,356	$ 440,546	$ 381,141	$ 357,649	$ 346,181
Contributions-Member	230,757	221,829	206,377	202,463	203,975	197,722
Net investment income	1,243,817	1,517,545	29,358	306,980	1,810,782	1,268,939
Benefit Payments, including refunds of Member contributions	(851,885)	(804,089)	(770,318)	(740,567)	(721,153)	(701,400)
Administrative expense	(17,699)	(17,454)	(17,204)	(15,860)	(12,372)	(13,281)
Other(2)	(471)	-	-	(4,666)	(2,288)	(2,514)
Net change in Plan fiduciary net position	1,054,714	1,371,187	(111,241)	129,491	1,636,593	1,095,647
Plan fiduciary net position-beginning	13,180,516	11,809,329	11,920,570	11,791,079	10,154,486	9,058,839
Plan fiduciary net position-ending (b)	$ 14,235,230	$ 13,180,516	$ 11,809,329	$ 11,920,570	$ 11,791,079	$ 10,154,486
Plan's net pension liability-ending (a)-(b)	$ 5,709,348	$ 5,277,672	$ 5,615,667	$ 4,989,426	$ 4,457,774	$ 4,727,177
Plan fiduciary net position as a percentage of the total pension liability (b)/(a)	71.4%	71.4%	67.8%	70.5%	72.6%	68.2%
Covered payroll	$ 2,057,565	$ 1,973,049	$ 1,876,946	$ 1,835,637	$ 1,802,931	$ 1,736,113
Plan's net pension liability as a percentage of covered payroll	277.5%	267.5%	299.2%	271.8%	247.3%	272.3%

(1) In calculating the Plan's net pension liability, total pension liability and the Plan fiduciary net position, exclude amounts associated with Family Death and Larger Annuity Benefits.

(2) For the year ended June 30, 2018, $471,000 represents a correction made by LACERS to beginning of year interest posted to member reserves. For the year ended June 30, 2015, $4,666,000 represents the segregation of Members' voluntary larger annuity contributions from the (pension-related) Reserve for Members' Contributions into the (non-pension related) Reserve for Larger Annuity Contributions pursuant to a suggestion made by the actuarial consultant. The Reserve balance for Larger Annuity Contributions as of June 30, 2015 was $5,200,000. For the years ended June 30, 2014 and 2013, these amounts are transfers related to Larger Annuity.

Notes to Schedule:

Changes of Benefit Terms: The June 30, 2018 calculation reflects enhanced benefits for Airport Peace Officers effective January 7, 2018.

Schedule of Changes in Net Pension Liability and Related Ratios (Continued)

Notes to Schedule: (Continued)

Changes of Assumptions: The June 30, 2018 calculations reflected various non-economic assumption changes based on the triennial experience study for the period from July 1, 2014 through June 30, 2017. The increase in the total pension liability for the fiscal year ended on June 30, 2018 resulting from the assumption changes is primarily due to the mortality assumption change.

The June 30, 2017 calculations reflected various economic assumption changes based on the Review of Economic Actuarial Assumptions report dated June 30, 2017 and on the Supplemental Information report dated August 10, 2017. The increase in the total pension liability for the fiscal year ended on June 30, 2017 is primarily due to the lowered assumed investment rate of return from 7.50% to 7.25%, offset somewhat by the decrease in the inflation assumption from 3.25% to 3.00%, and the decrease in the across-the-board salary increase assumption from 0.75% to 0.50%.

The June 30, 2014 calculations reflected various assumption changes based on the triennial experience study for the period from July 1, 2011 through June 30, 2014. The increase in the total pension liability for the fiscal year ended on June 30, 2014 is primarily due to the lowered assumed investment rate of return from 7.75% to 7.50%, and longer assumed life expectancies for Members and beneficiaries.

Projection of Pension Plan's Fiduciary Net Position for Use in Calculation of Discount Rate of 7.25% and Preparation of GASB 67 Report as of June 30, 2018

(Dollars in Millions)

Year Beginning July 1	Projected Beginning Plan Fiduciary Net Position (a)	Projected Total Contributions (b)	Projected Benefit Payments (c)	Projected Admin. Expenses (d)	Projected Investment Earnings (e)	Projected Ending Plan Fiduciary Net Position (a)+(b)-(c)-(d)+(e)
2017	$13,181	$681	$852	$18	$1,243	$14,235
2018	14,235	757	991	19	1,019	15,000
2019	15,000	752	1,023	20	1,073	15,783
2020	15,783	750	1,085	21	1,127	16,553
2021	16,553	750	1,149	22	1,180	17,312
2022	17,312	750	1,214	23	1,232	18,057
2023	18,057	750	1,279	24	1,284	18,787
2024	18,787	704	1,347	25	1,332	19,452
2025	19,452	709	1,413	26	1,378	20,100
2044	27,268	115[1]	2,404	37	1,883	26,826
2045	26,826	110[1]	2,414	36	1,850	26,336
2046	26,336	105[1]	2,421	35	1,814	25,799
2047	25,799	99[1]	2,426	35	1,775	25,212
2048	25,212	93[1]	2,429	34	1,732	24,573
2081	2,526	16[1]	501	3	163	2,201
2082	2,201	15[1]	450	3	142	1,904
2083	1,904	13[1]	401	3	122	1,636
2084	1,636	12[1]	355	2	105	1,395
2085	1,395	11[1]	313	2	89	1,181
2101	22	1[1]	10	0	1	14
2102	14	1[1]	7	0	1	9
2103	9	1[1]	5	0	0	6
2104	6	1[1]	3	0	0	3
2105	3	0[1],[2]	2	0	0	2
2106	2	0[1],[2]	1	0	0	1
2107	1	0[1],[2]	1	0	0	0
2108	0	0[1],[2]	1	0	0	0
2109	0	0[1],[2]	0[2]	0	0	0
2110	0	0[1],[2]	0[2]	0	0	0
2111	0	0[1],[2]	0[2]	0	0	0
2112	0	0[1],[2]	0[2]	0	0	0
2113	0	0[1],[2]	0[2]	0	0	0
2114	0	0[1],[2]	0[2]	0	0	0
2115	0	0[1],[2]	0[2]	0	0	0
2116	0	0[1],[2]	0[2]	0	0	0

(1) Mainly attributable to employer contributions to fund each year's annual administrative expenses.

(2) 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.

Projection of Pension Plan's Fiduciary Net Position for Use in Calculation of Discount Rate of 7.25% and Preparation of GASB 67 Report as of June 30, 2018 (Continued)

Notes to Schedule:

1. Amounts may not total exactly due to rounding.

2. Amounts shown for the year beginning July 1, 2017 row are actual amounts, based on the unaudited financial statements provided by LACERS.

3. Years 2026-2043, 2049-2080, and 2086-2100 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, 2018); plus employer contributions to the unfunded actuarial accrued liability; plus contributions to fund each year's annual administrative expenses reflecting a 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 GASB Statement No. 67, and are based on the closed group of active, inactive vested, retired Members, and beneficiaries as of June 30, 2018. The projected benefit payments reflect the cost of living increase assumptions used in the June 30, 2018 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 7.25% was applied to all periods of projected benefit payments to determine the discount rate.

7. Column (d): Projected administrative expenses are calculated as approximately 0.13% of the projected beginning Plan Fiduciary Net Position amount. The 0.13% portion was based on the actual fiscal year 2017-18 administrative expenses as a percentage of the beginning Plan Fiduciary Net Position amount as of July 1, 2017. 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 7.25% per annum.

9. As illustrated in this Schedule, 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 7.25% per annum was applied to all periods of projected benefit payments to determine the Total Pension Liability as of June 30, 2018 shown in the GASB 67 report, pursuant to paragraph 44 of GASB Statement No. 67.

Summary of Actuarial Assumptions and Actuarial Cost Method

Rationale for Assumptions

The information and analysis used in selecting each assumption that has a significant effect on this actuarial valuation is shown in the July 1, 2014 through June 30, 2017 Actuarial Experience Study dated June 29, 2018, the Review of Economic Actuarial Assumptions report dated June 30, 2017, and in the Supplemental Information report dated August 10, 2017. Unless otherwise noted, all actuarial assumptions and methods shown below apply to both Tier 1 and Tier 3 Members. The following assumptions used to value the Plan liabilities for funding purposes and for financial reporting purposes have been adopted by the Board.

Net Investment Return

7.25%[1]

[1] Net of investment and administrative expenses for funding purposes, and net of investment expenses only for financial reporting purposes.

Discount Rate

7.25%

Consumer Price Index (CPI)

Increase of 3.00% 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 3.00% is used to approximate that crediting rate in this valuation.

Salary Increases

Inflation: 3.00%; plus additional 0.50% “across the board” salary increases (other than inflation); plus the following merit and promotional increases:

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

Mortality Rates

After Service Retirement and all Beneficiaries

Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table (separate tables for males and females) projected generationally with the two-dimensional mortality improvement scale MP-2017.

After Disability Retirement

Headcount-Weighted RP-2014 Disabled Retiree Mortality Table (separate tables for males and females) projected generationally with the two-dimensional mortality improvement scale MP-2017.

The RP-2014 mortality tables and adjustments as shown above reflect the mortality experience as of the measurement date. The generational projection is a provision for future mortality improvement.

Termination Rates before Retirement

Pre-Retirement Mortality

Headcount-Weighted RP-2014 Employee Mortality Table (separate tables for males and females) times 90%, projected generationally with the two-dimensional mortality improvement scale MP-2017.

Rates of termination for Members with less than five years of service are as follows:

Years of Service	Rate (%) Termination (Based on Service)
0	12.00
1	10.00
2	9.00
3	8.25
4	7.75

Age	Rate (%)	
	Disability	Termination[1]
25	0.01	7.00
30	0.02	7.00
35	0.05	5.50
40	0.07	3.90
45	0.13	3.20
50	0.19	2.70
55	0.20	2.50
60	0.20	2.50

[1] Rates for Members with five or more years of service. Termination rates are zero for Members eligible to retire.

Summary of Actuarial Assumptions and Actuarial Cost Method (Continued)

Retirement Rates

	Rate (%)					
	Tier 1		APO Tier 1[1]		Tier 3	
Age	Non-55/30	55/30	Non-55/30	55/30	Non-55/30	55/30
50	6.0	0.0	7.0	0.0	6.0	0.0
51	3.0	0.0	4.0	0.0	3.0	0.0
52	3.0	0.0	4.0	0.0	3.0	0.0
53	3.0	0.0	4.0	0.0	3.0	0.0
54	17.0	0.0	18.0	0.0	16.0	0.0
55	6.0	24.0	7.0	25.0	0.0[2]	23.0
56	6.0	16.0	7.0	17.0	0.0[2]	15.0
57	6.0	16.0	7.0	17.0	0.0[2]	15.0
58	6.0	16.0	7.0	17.0	0.0[2]	15.0
59	6.0	16.0	7.0	17.0	0.0[2]	15.0
60	7.0	16.0	8.0	17.0	6.0	15.0
61	7.0	16.0	8.0	17.0	6.0	15.0
62	7.0	16.0	8.0	17.0	6.0	15.0
63	7.0	16.0	8.0	17.0	6.0	15.0
64	7.0	16.0	8.0	17.0	6.0	15.0
65	13.0	20.0	14.0	21.0	12.0	19.0
66	13.0	20.0	14.0	21.0	12.0	19.0
67	13.0	20.0	14.0	21.0	12.0	19.0
68	13.0	20.0	14.0	21.0	12.0	19.0
69	13.0	20.0	14.0	21.0	12.0	19.0
70	100.0	100.0	100.0	100.0	100.0	100.0

(1) Consistent with the cost study prepared for the adoption of enhanced Tier 1 benefits, the rates above are estimated by increasing the retirement rates for Tier 1 by a flat 1%.
(2) Not eligible to retire under the provisions of the Tier 3 plan.

Retirement Age and Benefit for Inactive Vested Participants

Pension benefit will be paid at the later of age 59 or the current attained age. For reciprocals, compensation increases of 3.90% per annum are assumed.

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 three years older than their female spouses. Female retirees are assumed to be two 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 credit per year.

Other Reciprocal Service

5% of future inactive vested Members will work at a reciprocal system.

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. An Ad Hoc change was made in 2018 to combine the unrecognized net gains of prior years as of June 30, 2017 into one layer and recognize it evenly over six years from fiscal year 2017-18 through fiscal year 2022-23.

Actuarial Cost Method

Entry Age Cost Method, level percent of salary.

Funding Policy

The plan sponsor of the City of Los Angeles Employees' Retirement System makes contributions equal to the normal cost adjusted by an amount to amortize any surplus or unfunded actuarial accrued liability (UAAL) (refer to the Schedule of Contribution History on page 52). The amortization method for the UAAL is a level percentage 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 employment service.

Summary of Actuarial Assumptions and Actuarial Cost Method (Continued)

Funding Policy (Continued)

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 five 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 contribution under the current funding policy plus an additional contribution due to the application of the 40-year minimum amortization requirement for both fiscal year 2003-04 and 2004-05. The amortization of the 40-year minimum for 2003-04 and 2004-05 will be fully completed in the next two valuations.

One of the goals of LACERS' funding policy is to achieve long-term full funding of the cost of benefits provided by LACERS. To achieve that goal, the future actuarially determined contributions, together with current assets and expected investment income, are expected to be sufficient to provide all projected future benefit payments for current plan members.

Assumption Changes Since Prior Valuation

The actuarial assumptions described above have been updated as a result of the July 1, 2014 through June 30, 2017 Actuarial Experience Study.

Summary of Plan Provisions

LACERS administers a single-employer defined benefit Retirement Plan. The following summarizes the major provisions of LACERS included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

Plan Year

July 1 through June 30

Census Date

June 30

Membership Eligibility

Tier 1 (§ 4.1002(a))

All employees who became Members of LACERS before July 1, 2013, and certain employees who became Members of LACERS on or after July 1, 2013. In addition, pursuant to Ordinance No. 184134, all Tier 2 employees who became Members of LACERS between July 1, 2013 and February 21, 2016 were transferred to Tier 1 effective February 21, 2016 (refer to Note 2 – Retirement Plan Description on pages 29 - 30 regarding the membership).

Tier 1 Enhanced (§ 4.1002(e))

All Tier 1 Airport Peace Officers (including certain fire fighters) appointed to their positions before January 7, 2018 who elected to remain at LACERS after January 6, 2018.

Tier 3 (§ 4.1080.2(a))

All employees who became Members of LACERS on or after February 21, 2016, except as provided otherwise in Section 4.1080.2(b) of the Los Angeles Administrative Code.

Normal Retirement Benefit

Tier 1 & Tier 1 Enhanced

Age & Service Requirement (§ 4.1005(a))

- Age 70; or
- Age 60 with 10 years of continuous City service; or
- Age 55 with at least 30 years of City service.

Tier 1

Amount (§ 4.1007(a))

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

Tier 1 Enhanced

Amount (§ 4.1007(a))

2.30% per year of service credit (not greater than 100%) of the Final Average Monthly Compensation.

Tier 3

With less than 30 Years of Service (§ 4.1080.5(a)(2)(i))

Age & Service Requirement

Age 60 with 10 years of service, including 5 years of continuous City service.

Amount

1.50% per year of service credit at age 60 (not greater than 80%[1]) of the Final Average Monthly Compensation.

Summary of Plan Provisions (Continued)

Normal Retirement Benefit (Continued)

Tier 3 (Continued)

With 30 or more Years of Service (§ 4.1080.5(a)(2)(ii))

Age & Service Requirement

Age 60 with 30 years of service, including 5 years of continuous City service.

Amount

2.00% per year of service credit at age 60 (not greater than 80%[(1)]) of the Final Average Monthly Compensation.

(1) Except when benefit is based solely on the annuity component funded by the Member's contributions.

Early Retirement Benefit

Tier 1 & Tier 1 Enhanced

Age & Service Requirement (§ 4.1005(b))

- Age 55 with 10 years of continuous City service; or
- Any age with 30 years of City service.

Amount (§ 4.1007(a) & (b))

2.16% and 2.30% per year of service credit for Tier 1 and Tier 1 Enhanced, respectively, (not greater than 100%) of the Final Average Monthly Compensation, reduced for retirement ages below age 60 using the following Early Retirement benefit adjustment factors:

Age	Factor	Age	Factor
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

Tier 3

Age & Service Requirement (§ 4.1080.5(a)(1))

Prior to age 60 with 30 years of service, including 5 years of continuous City service.

Amount (§ 4.1080.5(a)(1))

2.00% per year of service credit (not greater than 80%[(1)]) of the Final Average Monthly Compensation, reduced for retirement ages below age 55 using the following Early Retirement benefit adjustment factors:

Age	Factor	Age	Factor
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

(1) Except when benefit is based solely on the annuity component funded by the Member's contributions.

Enhanced Retirement Benefit

Tier 1 & Tier 1 Enhanced

Age & Service Requirement

Not applicable – see Normal Retirement age and service requirement.

Amount

Not applicable – see Normal Retirement amount.

Tier 3

With less than 30 Years of Service (§ 4.1080.5(a)(3)(i))

Age & Service Requirement

Age 63 with 10 years of service, including 5 years of continuous City service.

Amount

2.00% per year of service credit at age 63 (not greater than 80%[(1)]) of the Final Average Monthly Compensation.

With 30 or more Years of Service (§ 4.1080.5(a)(3)(ii))

Age & Service Requirement

Age 63 with 30 years of service, including 5 years of continuous City service.

Amount

2.10% per year of service credit at age 63 (not greater than 80%[(1)]) of the Final Average Monthly Compensation.

(1) Except when benefit is based solely on the annuity component funded by the Member's contributions.

Service Credit

Tier 1, Tier 1 Enhanced & Tier 3 (§ 4.1001(a) & § 4.1080.1(a))

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

Final Average Monthly Compensation

Tier 1 & Tier 1 Enhanced (§ 4.1001(b))

Equivalent of monthly average salary of highest continuous 12 months (one year); includes base salary plus regularly assigned pensionable bonuses or premium pay. [(1)]

Summary of Plan Provisions (Continued)

Final Average Monthly Compensation (Continued)

Tier 3 (§ 4.1080.1(b))

Equivalent of monthly average salary of highest continuous 36 months (three years); limited to base salary and any items of compensation that are designated as pension based. (1)

(1) IRC Section 401(a)(17) compensation limit would apply to all employees who began membership in LACERS after June 30, 1996.

Cost of Living Benefit

Tier 1 & Tier 1 Enhanced (§ 4.1022)

Based on changes to Los Angeles area Consumer Price Index, to a maximum of 3% per year; excess banked.

Tier 3 (§ 4.1080.17)

Based on changes to Los Angeles area Consumer Price Index, to a maximum of 2% per year; excess not banked.

Death after Retirement

Tier 1 & Tier 3
(§ 4.1010(c), § 4.1080.10(c), & § 4.1012(c))

- 50% of retiree's unmodified allowance continued to an eligible spouse or a domestic partner; or a modified continuance to an eligible spouse or a domestic partner at the time of Member's death (or a designated beneficiary selected by Member at the time of retirement)(1); and
- $2,500 lump sum death benefit paid to a designated beneficiary; and
- Any unused contributions if the Member has elected the cash refund annuity option.

(1) The retiree may elect at the time of retirement to take a reduced allowance in order to provide for a higher continuance percentage pursuant to the provisions of either Section 4.1015 (Tier 1) or Section 4.1080.14 (Tier 3).

Tier 1 Enhanced
(§ 4.1010.1(b), § 4.1010.1(i), & § 4.1010.1(j))

While on service-connected disability

- 80% of retiree's unmodified allowance continued to an eligible spouse or a domestic partner; or a modified continuance to an eligible spouse or a domestic partner at the time of Member's death (or a designated beneficiary selected by Member at the time of retirement)(1), (2); and
- $2,500 lump sum death benefit paid to a designated beneficiary; and
- Any unused contributions if the Member has elected the cash refund annuity option.

(1) If the death occurs within three years of the retiree's retirement, the eligible survivor shall receive 80% of the Final Average Monthly Compensation (adjusted with Cost of Living benefit).

(2) The retiree may elect at the time of retirement to take a reduced allowance in order to provide for a higher continuance percentage pursuant to the provisions of Section 4.1010.1(c).

While on nonservice-connected disability

- 70% of retiree's unmodified allowance continued to an eligible spouse or a domestic partner; or a modified continuance to an eligible spouse or a domestic partner at the time of Member's death (or a designated beneficiary selected by Member at the time of retirement)(3); and
- $2,500 lump sum death benefit paid to a designated beneficiary; and
- Any unused contributions if the Member has elected the cash refund annuity option.

(3) The retiree may elect at the time of retirement to take a reduced allowance in order to provide for a higher continuance percentage pursuant to the provisions of Section 4.1010.1(c).

Death before Retirement

Tier 1, Tier 1 Enhanced, & Tier 3
(§ 4.1010(a), § 4.1010.1(b), & § 4.1080.10(a))

Greater of:

Option #1:

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

Service Credit	Total Number of Monthly Payments
Less than 1 year	0
1 year	2
2 years	4
3 years	6
4 years	8
5 years	10
6+ years	12

Tier 1 & Tier 3

Option #2:

- Eligibility – Duty-related death or after five years of continuous service.
- Benefit – Continuance of service or disability benefit payable under 100% joint and survivor option to an eligible spouse or qualified domestic partner.

Summary of Plan Provisions (Continued)

Death before Retirement (Continued)

Tier 1 Enhanced

Service-Connected Death

Option #2:

- Eligibility – None.
- Benefit – 80% of Member's Final Average Monthly Compensation.

Nonservice-Connected Death

Option #2:

- Eligibility – 5 years of service (unless on military leave and killed while on military duties).
- Benefit – 50% of Member's Final Average Monthly Compensation.

Member Contributions

Tier 1 & Tier 1 Enhanced (§ 4.1003)

Effective July 1, 2011, the Member contribution rate became 7% for all employees. Of the 7% rate, 0.5% is the survivor contribution portion and 6.5% is the normal contribution. The 7% Member rate shall be paid until June 30, 2026 or until the ERIP Cost Obligation (defined in ERIP Ordinance No. 180926) is fully paid, whichever comes first[(1)].

Beginning January 1, 2013, all non-represented Members and Members in certain bargaining groups are required to pay an additional 4% Member contribution rate to defray the cost of providing a Retiree Medical Plan premium subsidy (this now applies to all Tier 1 and Tier 1 Enhanced Members and this additional rate has increased to 4.5% for certain Members).

For Tier 1, members with no eligible spouse or domestic partner at retirement can request a refund of the survivor portion of the Member contributions (i.e., generally based on a contribution rate of 0.5% of pay).

(1) The Member contribution rate will drop down to 6% afterwards.

Tier 3 (§ 4.1080.3)

The Member contribution rate is 7% for all employees. Of the 7% rate, 0.5% is the survivor contribution portion and 6.5% is the normal contribution.

All Members are required to pay an additional 4% Member contribution rate to defray the cost of providing a Retiree Medical Plan premium subsidy.

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

Disability

Tier 1 & Tier 3

Service Requirement (§ 4.1008(a) & § 4.1080.8(a))

5 years of continuous service.

Amount[(1)] (§ 4.1008(c) & § 4.1080.8(c))

1/70 (1.43%) of the Final Average Monthly Compensation per year of service or 1/3 of the Final Average Monthly Compensation, if greater.

Tier 1 Enhanced

Service Requirement (§ 4.1008.1)

Service-Connected Disability: None.

Nonservice-Connected Disability: 5 years of continuous service.

Amount[(1)] (§ 4.1008.1)

Service-Connected Disability: 30% to 90% of the Final Average Monthly Compensation depending on severity of disability, with a minimum of 2% of the Final Average Monthly Compensation per year of service.

Nonservice-Connected Disability: 30% to 50% of the Final Average Monthly Compensation depending on severity of disability.

(1) The benefit calculated using the service retirement formula will be paid if the Member is eligible and that benefit is greater than that calculated under the disability retirement formula.

Deferred Retirement Benefit (Vested)

Tier 1 & Tier 1 Enhanced (§ 4.1006)

Age & Service Requirement

- Age 70 with 5 years of continuous City service; or
- Age 60 with 5 years of continuous City service and at least 10 years elapsed from first date of membership; or
- Age 55 with at least 30 years of service.
- Deferred employee who meets part-time eligibility: age 60 and at least 10 years elapsed from first date of membership.

Amount

Normal Retirement Benefit (or refund of contributions and accumulated interest).

Age & Service Requirement

- Age 55 with 5 years of continuous City service and at least 10 years elapsed from first date of membership; or
- Age 55 with 10 years of continuous City service.
- Deferred employee who meets part-time eligibility: age 55 and at least 10 years elapsed from first date of membership.

Summary of Plan Provisions (Continued)

Deferred Retirement Benefit (Vested) (Continued)

Amount

Early Retirement Benefit (or refund of contributions and accumulated interest), using the following Early Retirement benefit adjustment factors:

Age	Factor
55	0.9250
56	0.9400
57	0.9550
58	0.9700
59	0.9850

Tier 3 (§ 4.1080.6)

Age & Service Requirement

- Age 60 with 5 years of continuous City service and at least 10 years elapsed from first date of membership; or
- Age 70 with 5 years of continuous City service, regardless of the number of years that have elapsed from first date of membership.

Amount

Normal retirement benefit (based on a Retirement Factor of 1.50%; or refund of contributions and accumulated interest).

Age & Service Requirement

- Age 60 with 30 years of continuous City service and at least 10 years elapsed from first date of membership; or
- Age 63 with 10 years of service, including 5 years of continuous City Service.

Amount

Normal retirement benefit (based on a Retirement Factor of 2.00%; or refund of contributions and accumulated interest).

Age & Service Requirement

Age 63 with 30 years of continuous City service and at least 10 years elapsed from first date of membership.

Amount

Enhanced retirement (benefit based on a Retirement Factor of 2.10%; or refund of contributions and accumulated interest).

Age & Service Requirement

Age 55 (but not yet 60) with 5 years of continuous City service and at least 10 years elapsed from first date of membership.

Amount

Early retirement benefit (based on a Retirement Factor of 1.50% instead of 2.00%; or refund of contributions and accumulated interest), using the following Early Retirement benefit adjustment factors:

Age	Factor
55	0.9250
56	0.9400
57	0.9550
58	0.9700
59	0.9850

Withdrawal of Contributions Benefit (Ordinary Withdrawal)

Refund of employee contributions with interest.

Changes in Plan Provisions

Effective January 7, 2018, Tier 1 enhanced benefits are available to APO members who elected to remain at LACERS. The Plan Provisions shown above reflect these enhanced benefits.

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Actuarial Certification

November 7, 2018

This is to certify that Segal Consulting (Segal) has conducted an actuarial valuation of certain benefit obligations of Los Angeles City Employees' Retirement System's other postemployment benefit programs as of June 30, 2018, in accordance with generally accepted actuarial principles and practices. In particular, it is our understanding that the assumptions and methods used for funding purposes meet the parameters set by the Actuarial Standards of Practice (ASOPs). Actuarial valuations are performed annually for this other postemployment benefit program with the last valuation completed as of June 30, 2017.

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

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

The actuarial computations made are for purposes of funding plan benefits. Accordingly, additional determinations will be needed for other purposes, such as satisfying financial accounting requirements under Governmental Accounting Standards Board (GASB) Statement No. 74 and judging benefit security at termination of the plan.

Segal prepared all of the supporting schedules in the Actuarial Section of the Comprehensive Annual Financial Report (CAFR) and certain supporting schedules in the Financial Section, based on the results of the June 30, 2018 actuarial valuation. A listing of the supporting schedules Segal prepared for inclusion in the Financial Section, and in the Actuarial Section, is provided below:

Financial Section
1) Schedule of Net Other Postemployment Benefits (OPEB) Liability*
2) Schedule of Changes in Net OPEB Liability and Related Ratios*
3) Schedule of Contribution History*

Actuarial Section
4) Summary of Significant Valuation Results
5) Active Member Valuation Data
6) Retirees and Beneficiaries Added to and Removed from Health Benefits
7) Member Benefit Coverage Information
8) Schedule of Funding Progress
9) Actuarial Analysis of Financial Experience
10) Actuarial Balance Sheet
11) Schedule of Changes in Net OPEB Liability and Related Ratios*
12) Projection of OPEB Plan's Fiduciary Net Position for Use in Calculation of Discount Rate of 7.25% and Preparation of GASB 74 Report as of June 30, 2018

* Source: Segal's GASB Statement No. 74 valuation report as of June 30, 2018.

Actuarial Certification (Continued)

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

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

Thomas Bergman, ASA, MAAA, EA	Andy Yeung, ASA, MAAA, FCA, EA
Retiree Health Actuary	Vice President and Actuary

Active Member Valuation Data

Member Population

Valuation Date	Active Members[1]	Covered Payroll	Annual Average Pay[2]	Change in Annual Average Pay (%)
06/30/2009	30,065[3]	$1,816,171,212[4]	$65,632[4]	0.3
06/30/2010	26,245	1,817,662,284	69,257	5.5
06/30/2011	25,449	1,833,392,381	72,042	4.0
06/30/2012	24,917	1,819,269,630	73,013	1.3
06/30/2013	24,441	1,846,970,474	75,569	3.5
06/30/2014	24,009	1,898,064,175	79,056	4.6
06/30/2015	23,895	1,907,664,598	79,835	1.0
06/30/2016	24,446	1,968,702,630	80,533	0.9
06/30/2017	25,457	2,062,316,129	81,012	0.6
06/30/2018	26,042	2,177,687,102	83,622	3.2

(1) Includes non-vested Members.
(2) Reflects annualized salaries for part-time Members.
(3) Before reclassifying the 2,393 Early Retirement Incentive Program (ERIP) electing active Members as retired under the program.
(4) After ERIP.

Retirees and Beneficiaries Added to and Removed from Health Benefits

Valuation Date	No. of New Retirees/ Beneficiaries	Annual Subsidies Added[1]	No. of Retirees/ Beneficiaries Removed	Annual Subsidies Removed	No. of Retirees/ Beneficiaries at 6/30	Annual Subsidies at 6/30	Percent Increase in Annual Subsidies	Average Annual Subsidy
06/30/2009	376	$5,542,283	487	$2,697,150	11,893	$73,868,501	4.0%	$6,211
06/30/2010	2,104[2]	23,010,841[2]	555	2,670,987	13,442	94,208,355	27.5	7,009
06/30/2011	431	5,670,390	437	2,774,684	13,436	97,104,061	3.1	7,227
06/30/2012	433	(540,583)	438	2,516,835	13,431	94,046,643	(3.1)	7,002
06/30/2013	635	9,263,844	474	2,463,967	13,592	100,846,520	7.2	7,420
06/30/2014	616	7,160,148	522	3,047,436	13,686	104,959,232	4.1	7,669
06/30/2015	860	10,844,333	534	3,174,045	14,012	112,629,520	7.3	8,038
06/30/2016	837	2,185,058	536	3,102,492	14,313	111,712,086	(0.8)	7,805
06/30/2017	913	13,706,185	574	3,316,380	14,652	122,101,891	9.3	8,333
06/30/2018	1,104	17,413,241	612	3,649,382	15,144[3]	135,865,750	11.3	8,972

(1) Also reflects changes in subsidies for continuing retirees and beneficiaries.
(2) Large increase primarily due to accelerated retirements stimulated by the City's Early Retirement Incentive Program (ERIP).
(3) Total participants including married dependents currently receiving benefits are 20,288.

Member Benefit Coverage Information

For Years Ended June 30
(Dollars in Thousands)

Valuation Date	Aggregate Actuarial Accrued Liabilities For: Inactive/ Vested Members	Retirees, Beneficiaries & Dependents	Active Members	Valuation Value of Assets	Portion of Aggregate Accrued Liabilities Covered by Reported Assets: Inactive/ Vested Members	Retirees, Beneficiaries & Dependents	Active Members
06/30/2009[1]	$26,182	$1,118,520[2]	$913,475	$1,342,497	100%	100%	22%
06/30/2010	34,455	1,124,254	1,075,166	1,425,726	100	100	25
06/30/2011	19,964	1,066,351	882,393	1,546,884	100	100	52
06/30/2012	24,454	1,083,168	1,184,778	1,642,374	100	100	45
06/30/2013	26,869	1,104,833	1,280,783	1,734,733	100	100	47
06/30/2014	41,188	1,196,769	1,424,896	1,941,225	100	100	49
06/30/2015	42,943	1,210,067	1,393,980	2,108,925	100	100	61
06/30/2016	50,413	1,275,604	1,467,671	2,248,753	100	100	63
06/30/2017	62,252	1,379,357	1,564,197	2,438,458	100	100	64
06/30/2018	67,138	1,497,370	1,692,320	2,628,844	100	100	63

(1) Based on revised June 30, 2009 valuation.
(2) Includes liabilities for the 2,393 ERIP-electing Members.

Schedule of Funding Progress

For Years Ended June 30
(Dollars in Thousands)

Valuation Date	Valuation Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b)-(a)	Funded Ratio (a)/(b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b)-(a)]/(c)
06/30/2009	$1,342,497	$2,058,177	$715,680	65.2 %	$1,816,171	39.4 %
06/30/2010	1,425,726	2,233,874	808,148	63.8	1,817,662	44.5
06/30/2011	1,546,884	1,968,708	421,824	78.6	1,833,392	23.0
06/30/2012	1,642,374	2,292,400	650,026	71.6	1,819,270	35.7
06/30/2013	1,734,733	2,412,484	677,751	71.9	1,846,970	36.7
06/30/2014	1,941,225	2,662,853	721,628	72.9	1,898,064	38.0
06/30/2015	2,108,925	2,646,989	538,064	79.7	1,907,665	28.2
06/30/2016	2,248,753	2,793,688	544,935	80.5	1,968,703	27.7
06/30/2017	2,438,458	3,005,806	567,348	81.1	2,062,316	27.5
06/30/2018	2,628,844	3,256,828	627,984	80.7	2,177,687	28.8

Actuarial Analysis of Financial Experience

Development of Unfunded Actuarial Accrued Liability
for Year Ended June 30, 2018

1.	Unfunded actuarial accrued liability as of June 30, 2017	$ 567,348,102
2.	Employer normal cost as of June 30, 2017	74,610,881
3.	Expected employer contributions during 2017-18 fiscal year	(104,840,996)
4.	Interest	38,941,054
5.	Adjustment due to prior year's UAAL payment limited to reflect a 30-year effective amortization period	1,797,364
6.	Expected unfunded actuarial accrued liability as of June 30, 2018 (1 + 2 + 3 + 4 + 5)	577,856,405
7.	Change due to investment gain, after smoothing	(38,401,014)
8.	Change due to actual contributions less than expected	4,521,884
9.	Change due to miscellaneous demographic gains and losses	32,375,587
10.	Change due to reallocation between Present Value of Future Normal Cost and AAL as part of adjustment to Entry Age cost methodology[(1)]	43,428,951
11.	Change due to updated 2018-19 premium and subsidy levels	(90,960,346)
12.	Change due to adopted future medical trend rates and HIT after 2018-19[(2)]	(17,704,919)
13.	Effect of new actuarial assumptions adopted in triennial experience study	109,882,560
14.	Change due to new enrollment and spouse coverage assumptions	11,754,340
15.	Change due to reflecting deferred starting date for projected Affordable Care Act (ACA) excise tax on high-cost health plan	(4,769,112)
16.	Unfunded actuarial accrued liability as of June 30, 2018 (6 + 7 + 8 + 9 + 10 + 11 + 12 + 13 + 14 + 15)	$ 627,984,336

(1) This is done as part of an adjustment to Entry Age cost methodology. There is a small contribution rate decrease of 0.07% of payroll as a result of this adjustment.

(2) The 2020-21 premium increases include additional estimated increases of 1.0% (non-Medicare) and 0.5% (Medicare) from the impact of the Health Insurance Tax (HIT).

Actuarial Balance Sheet

June 30, 2018

Assets	
1. Actuarial value of assets	$ 2,628,843,511
2. Present value of future normal costs	623,590,859
3. Unfunded actuarial accrued liability	627,984,336
4. Present value of current and future assets	$ 3,880,418,706
Liabilities	
5. Actuarial present value of total projected benefits	$ 3,880,418,706

Health Benefits Valuation

Schedule of Changes in Net OPEB Liability and Related Ratios

For Years Ended June 30
(Dollars in Thousands)

	2018	2017	2016
Total OPEB Liability			
Service cost	$ 74,611	$ 68,385	$ 62,360
Interest	218,686	210,170	199,078
Changes of benefit terms	948	-	17,215
Differences between expected and actual experience[1]	(7,321)	19,666	(22,013)
Changes of assumptions	92,178	33,512	-
Benefit payments	(128,081)	(119,616)	(109,940)
Net change in total OPEB liability	251,021	212,117	146,700
Total OPEB liability- beginning	3,005,806	2,793,689	2,646,989
Total OPEB liability- ending (a)	$ 3,256,827	$ 3,005,806	$ 2,793,689
Plan fiduciary net position			
Contributions- employer	$ 100,909	$ 97,457	$ 105,983
Net investment income (loss)	269,380	330,708	(344)
Benefit Payments	(128,081)	(119,616)	(109,940)
Administrative expense	(4,699)	(4,564)	(4,528)
Net change in Plan fiduciary net position	237,509	303,985	(8,829)
Plan fiduciary net position - beginning	2,438,862	2,134,877	2,143,706
Plan fiduciary net position - ending (b)	$ 2,676,371	$ 2,438,862	$ 2,134,877
Plan's net OPEB liability - ending (a)-(b)	$ 580,456	$ 566,944	$ 658,812
Plan fiduciary net position as a percentage of the total OPEB liability (b)/(a)	82.2%	81.1%	76.4%
Covered payroll	$ 2,057,565	$ 1,973,049	$ 1,876,946
Plan's net OPEB liability as a percentage of covered payroll	28.2%	28.7%	35.1%

(1) The June 30, 2018 calculation includes a reallocation of liability between service cost and TOL as a result of an adjustment to the Entry Age cost method. This adjustment does not change the total Present Value of Benefits.

Notes to Schedule:

Changes of Benefit Terms: The June 30, 2018 calculation reflected changes in the retirement rates for Enhanced Tier 1.

The June 30, 2016 calculation is primarily due to providing retiree health benefits to current and future part-time employees who retire with 10 or more years of eligibility service but less than 10 years of benefit service.

Changes of Assumptions: The June 30, 2018 calculations reflected various non-economic assumption changes based on the triennial experience study for the period from July 1, 2014 through June 30, 2017 and certain health care related actuarial assumptions in our September 18, 2018 letter.

The June 30, 2017 calculations reflected the lowered assumed investment rate of return from 7.50% to 7.25% based on the Review of Economic Actuarial Assumptions report dated June 30, 2017 and on the Supplemental Information report dated August 10, 2017.

Projection of OPEB Plan's Fiduciary Net Position for Use in Calculation of Discount Rate of 7.25% and Preparation of GASB 74 Report as of June 30, 2018

(Dollars in Millions)

Year Beginning July 1	Projected Beginning OPEB Plan Fiduciary Net Position (a)	Projected Total Contributions (b)	Projected Benefit Payments (c)	Projected Admin. Expenses (d)	Projected Investment Earnings (e)	Projected Ending OPEB Plan Fiduciary Net Position (a)+(b)-(c)-(d)+(e)
2017	$2,439	$101	$128	$5	$269	$2,676
2018	2,676	103	139	5	193	2,828
2019	2,828	102	147	5	203	2,981
2020	2,981	101	160	6	214	3,130
2021	3,130	100	174	6	224	3,274
2022	3,274	99	189	6	234	3,412
2023	3,412	97	203	7	243	3,544
2024	3,544	88	216	7	252	3,661
2025	3,661	87	229	7	260	3,773
2044	5,522	32	443	11	385	5,485
2045	5,485	31	447	11	382	5,440
2046	5,440	29	454	10	379	5,384
2047	5,384	28	460	10	375	5,317
2048	5,317	26	467	10	369	5,236
2081	939	7(1)	167	2	62	840
2082	840	6(1)	154	2	56	747
2083	747	6(1)	141	1	49	660
2084	660	6(1)	128	1	43	579
2085	579	5(1)	117	1	38	505
2101	18	1(1)	7	0(2)	1	13
2102	13	1(1)	5	0(2)	1	9
2103	9	1(1)	4	0(2)	1	6
2104	6	0(1),(2)	3	0(2)	0(2)	4
2105	4	0(1),(2)	2	0(2)	0(2)	3
2106	3	0(1),(2)	1	0(2)	0(2)	2
2107	2	0(1),(2)	1	0(2)	0(2)	1
2108	1	0(1),(2)	1	0(2)	0(2)	1
2109	1	0(1),(2)	0(2)	0(2)	0(2)	0(2)
2110	0(2)	0(1),(2)	0(2)	0(2)	0(2)	0(2)
2111	0(2)	0(1),(2)	0(2)	0(2)	0(2)	0(2)
2112	0(2)	0(1),(2)	0(2)	0(2)	0(2)	0(2)
2113	0(2)	0(1),(2)	0(2)	0(2)	0(2)	0(2)
2114	0(2)	0(1),(2)	0(2)	0(2)	0(2)	0(2)
2115	0(2)	0(1),(2)	0(2)	0(2)	0(2)	0(2)
2116	0(2)	0(1),(2)	0(2)	0(2)	0(2)	0(2)

(1) Mainly attributable to employer contributions to fund each year's annual administrative expenses.

(2) 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.

Projection of OPEB Plan's Fiduciary Net Position for Use in Calculation of Discount Rate of 7.25% and Preparation of GASB 74 Report as of June 30, 2018 (Continued)

Notes to Schedule:

1. Amounts may not total exactly due to rounding.

2. Amounts shown for the year beginning July 1, 2017 row are actual amounts, based on the unaudited financial statements provided by LACERS.

3. Years 2026-2043, 2049-2080, and 2086-2100 have been omitted from this table.

4. Column (a): None of the projected beginning OPEB Plan Fiduciary Net Position amounts shown have been adjusted for the time value of money.

5. Column (b): Projected total contributions include employer normal cost contributions based on closed group projections (based on covered active Members as of June 30, 2018); plus employer contributions to the unfunded actuarial accrued liability; plus contributions to fund each year's annual administrative expenses reflecting a 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 43 of GASB Statement No. 74, and are based on the closed group of active, inactive vested, retired Members, and beneficiaries as of June 30, 2018. The projected benefit payments reflect the excise tax as imposed by the ACA and related statutes reflected in the June 30, 2018 funding valuation report. Benefit payments are assumed to occur halfway through the year, on average. In accordance with paragraph 49 of GASB Statement No. 74, the long-term expected rate of return on Plan investments of 7.25% was applied to all periods of projected benefit payments to determine the discount rate.

7. Column (d): Projected administrative expenses are calculated as approximately 0.19% of the projected beginning OPEB Plan Fiduciary Net Position amount. The 0.19% portion was based on the actual fiscal year 2017-18 administrative expenses as a percentage of the beginning OPEB Plan Fiduciary Net Position amount as of July 1, 2017. 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 7.25% per annum.

9. As illustrated in this Schedule, the OPEB 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 7.25% per annum was applied to all periods of projected benefit payments to determine the Total OPEB Liability as of June 30, 2018 shown in the GASB 74 report, pursuant to paragraph 49 of GASB Statement No. 74.

Summary of Actuarial Assumptions and Actuarial Cost Method

Rationale for Assumptions

The information and analysis used in selecting each assumption that has a significant effect on this actuarial valuation is shown in the July 1, 2014 through June 30, 2017 Actuarial Experience Study dated June 29, 2018, the Review of Economic Actuarial Assumptions dated June 30, 2017, the Supplemental Information report dated August 10, 2017, and the retiree health assumptions letter dated September 18, 2018. Unless otherwise noted, all actuarial assumptions and methods shown below apply to both Tier 1 and Tier 3 Members. These assumptions have been adopted by the Board.

Data

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

Post-Retirement Mortality Rates

Healthy Members and all Beneficiaries

Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table (separate tables for males and females) projected generationally with the two-dimensional mortality improvement scale MP-2017.

Disabled Members

Headcount-Weighted RP-2014 Disabled Retiree Mortality Table (separate tables for males and females) projected generationally with the two-dimensional mortality improvement scale MP-2017.

The RP-2014 mortality tables and adjustments as shown above reflect the mortality experience as of the measurement date. The generational projection is a provision for future mortality improvement.

Termination Rates before Retirement

Pre-Retirement Mortality

Headcount-Weighted RP-2014 Employee Mortality Table (separate tables for males and females) times 90%, projected generationally with the two-dimensional mortality improvement scale MP-2017.

Rates of termination for Members with less than five years of service are as follows:

Years of Service	Rate (%)
0	12.00
1	10.00
2	9.00
3	8.25
4	7.75

	Rate (%)	
Age	Disability	Termination[1]
25	0.01	7.00
30	0.02	7.00
35	0.05	5.50
40	0.07	3.90
45	0.13	3.20
50	0.19	2.70
55	0.20	2.50
60	0.20	2.50

[1] Rates for Members with five or more years of service. Termination rates are zero for Members eligible to retire.

Retirement Rates

	Rate (%)					
	Tier 1		APO Tier 1[1]		Tier 3	
Age	Non-55/30	55/30	Non-55/30	55/30	Non-55/30	55/30
50	6.0	0.0	7.0	0.0	6.0	0.0
51	3.0	0.0	4.0	0.0	3.0	0.0
52	3.0	0.0	4.0	0.0	3.0	0.0
53	3.0	0.0	4.0	0.0	3.0	0.0
54	17.0	0.0	18.0	0.0	16.0	0.0
55	6.0	24.0	7.0	25.0	0.0[2]	23.0
56	6.0	16.0	7.0	17.0	0.0[2]	15.0
57	6.0	16.0	7.0	17.0	0.0[2]	15.0
58	6.0	16.0	7.0	17.0	0.0[2]	15.0
59	6.0	16.0	7.0	17.0	0.0[2]	15.0
60	7.0	16.0	8.0	17.0	6.0	15.0
61	7.0	16.0	8.0	17.0	6.0	15.0
62	7.0	16.0	8.0	17.0	6.0	15.0
63	7.0	16.0	8.0	17.0	6.0	15.0
64	7.0	16.0	8.0	17.0	6.0	15.0
65	13.0	20.0	14.0	21.0	12.0	19.0
66	13.0	20.0	14.0	21.0	12.0	19.0
67	13.0	20.0	14.0	21.0	12.0	19.0
68	13.0	20.0	14.0	21.0	12.0	19.0
69	13.0	20.0	14.0	21.0	12.0	19.0
70	100.0	100.0	100.0	100.0	100.0	100.0

[1] Consistent with the cost study prepared for the adoption of enhanced Tier 1 benefits, the rates above are estimated by increasing the retirement rates for Tier 1 by a flat 1%.
[2] Not eligible to retire under the provisions of the Tier 3 plan.

Retirement Age and Benefit for Inactive Vested Participants

Assume retiree health benefit will be paid at the later of age 59 or the current attained age.

Exclusion of Inactive Vested

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

Summary of Actuarial Assumptions and Actuarial Cost Method (Continued)

Unknown Data for Members

Same as those exhibited by Members with similar known characteristics. If not specified, Members are assumed to be male.

Service

Employment service is used for eligibility determination purposes. Benefit service is used for benefit calculation purposes.

Future Benefit Accruals

1.0 year of service credit per year

Net Investment Return

7.25%[1]

[1] Net of investment and administrative expenses for funding purposes, and net of investment expenses only for financial reporting purposes.

Discount Rate

7.25%

Salary Increases

Inflation: 3.00%; plus additional 0.50% "across the board" salary increases (other than inflation); plus the following merit and promotional increases:

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

Per Capita Cost Development

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

2018-19 Fiscal Year

Carrier	Election Percent	Maximum Monthly Dental Subsidy
Delta Dental PPO	79.2%	$44.60
DeltaCare USA	20.8%	$13.19

Maximum Monthly Medical Subsidy
(Not Subject to Medical Subsidy Cap)
Participant Under Age 65 or Not Eligible for Medicare A & B
2018-19 Fiscal Year

Carrier	Observed and Assumed Election Percent	Single Party Subsidy	Married/with Domestic Partner Subsidy	Eligible Survivor Subsidy
Kaiser HMO	62.4%	$853.39	$1,706.78	$853.39
Anthem BC PPO	21.9%	$1,270.81	$1,790.80	$853.39
Anthem BC HMO	15.7%	$1,003.40	$1,790.80	$853.39

Maximum Monthly Medical Subsidy
(Not Subject to Medical Subsidy Cap)
Participant Eligible for Medicare A & B
2018-19 Fiscal Year

Carrier	Observed and Assumed Election Percent	Single Party Subsidy	Married/with Domestic Partner Subsidy	Eligible Survivor Subsidy
Kaiser Senior Adv. HMO	58.1%	$259.86	$519.72	$259.86
Anthem BC Medicare Supplement	30.6%	$542.51	$1,062.50	$542.51
UHC Medicare Adv. HMO for California[1]	11.3%	$273.69	$542.78	$273.69

[1] Rates for CA plan.

Summary of Actuarial Assumptions and Actuarial Cost Method (Continued)

Per Capita Cost Development (Continued)

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

Maximum Monthly Medical Subsidy (Subject to Medical Subsidy Cap)

	Single Party Subsidy	Married/With Domestic Partner Subsidy	Eligible Survivor Subsidy
Under Age 65:			
All Plans	$1,190.00	$1,190.00	$593.62
Age 65 and Over:			
Kaiser HMO	$203.27	$406.54	$203.27
Blue Cross Medicare Supplement	$478.43	$478.43	$478.43
UHC Medicare Adv. HMO for California	$219.09	$396.47	$219.09

These rates only apply to a small number of deferred vested members, retirees and beneficiaries. No active members are subject to the retiree medical subsidy cap.

Adjustments to per-capita costs based on age, gender, and status are as follows:

	Retiree		Spouse	
Age	Male	Female	Male	Female
55	0.9037	0.9330	0.7112	0.8055
60	1.0732	1.0056	0.9521	0.9342
64	1.2312	1.0668	1.2019	1.0515
65	0.9193	0.7814	0.9193	0.7814
70	1.0655	0.8421	1.0655	0.8421
75	1.1482	0.9064	1.1482	0.9064
80+	1.2365	0.9772	1.2365	0.9772

Spouse/Domestic Partner Coverage

60% of male and 35% of female retirees who receive a subsidy are assumed to be married or have a qualified domestic partner and elect dependent coverage. Of these covered spouses/domestic partners, 100% are assumed to continue coverage if the retiree predeceases the spouse/domestic partner.

Spouse Age Difference

Male retirees are assumed to be four years older than their female spouses. Female retirees are assumed to be two years younger than their male spouses.

Participation

Retiree Medical and Dental Coverage Participation:

Years of Service Range	Percent Covered[1]
10 – 14	60%
15 – 19	80%
20 – 24	90%
25 and Over	95%

[1] Inactive Members are assumed to elect coverages at 50% of the rates shown above.

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

Health Care Cost Subsidy Trend Rates

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

First Fiscal Year (July 1, 2018 through June 30, 2019)

Plan	Trend to be applied to 2018-19 Fiscal Year premium
Anthem BC HMO, Under Age 65	(1.75)%
Anthem BC PPO, Under Age 65	3.50 %
Kaiser HMO, Under Age 65	3.50 %
Anthem BC Medicare Supplement	3.25 %
Kaiser Senior Advantage	4.29 %
UHC Medicare HMO	3.25 %

The fiscal year trend rates are based on the following calendar year trend rates:

Fiscal Year	Trend (Approx.) Non-Medicare	Trend (Approx.) Medicare	Calendar Year	Trend (applied to calculate following year premium) Non-Medicare	Trend (applied to calculate following year premium) Medicare
2019-20	6.87%	6.37%	2019	7.00%	6.50%
2020-21	6.62%[1]	6.12%[1]	2020	6.75%[1]	6.25%[1]
2021-22	6.37%	5.87%	2021	6.50%	6.00%
2022-23	6.12%	5.62%	2022	6.25%	5.75%
2023-24	5.87%	5.37%	2023	6.00%	5.50%
2024-25	5.62%	5.12%	2024	5.75%	5.25%
2025-26	5.37%	4.87%	2025	5.50%	5.00%
2026-27	5.12%	4.62%	2026	5.25%	4.75%
2027-28	4.87%	4.50%	2027	5.00%	4.50%
2028-29	4.62%	4.50%	2028	4.75%	4.50%
2029-30 and later	4.50%	4.50%	2029	4.50%	4.50%

[1] The fiscal year 2020-21 and calendar year 2020 premium increases will include additional estimated increases of 1.0% (non-Medicare) and 0.5% (Medicare) from the impact of the Health Insurance Tax (HIT), which have not been reflected in the trend rates shown above.

Summary of Actuarial Assumptions and Actuarial Cost Method (Continued)

Health Care Cost Subsidy Trend Rates (Continued)

Dental Premium Trend: 4.00% for all years.

Medicare Part B Premium Trend: 4.00% for all years.

Health Care Reform

As directed by LACERS, the impact of potential excise tax imposed by the Affordable Care Act (ACA) and related statutes on certain health plans was reflected in the current valuation in calculating the contribution rates for the employer. Statements No. 74 and No. 75 by the Governmental Accounting Standards Board (GASB) for financial reporting purposes require the inclusion of the excise tax in the liability.

Administrative Expenses

No administrative expenses were valued separately from the premium costs.

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. An Ad Hoc change was made in 2018 to combine the unrecognized gains of prior years as of June 30, 2017 into one layer and recognize it evenly over six years from fiscal year 2017-18 through fiscal year 2022-23.

Actuarial Cost Method

Entry Age Cost Method, level percent of salary.

Funding Policy

The plan sponsor of the City of Los Angeles Employees' Retirement System makes contributions equal to the normal cost adjusted by an amount to amortize any surplus or unfunded actuarial accrued liability (UAAL) (refer to the Schedule of Contribution History presented on page 57). The amortization method for the UAAL is a level percentage 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 employment 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 five 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, were combined and amortized over 30 years effective June 30, 2012. Health trend and premium assumption changes are amortized over 15 years.

One of the goals of LACERS' funding policy is to achieve long-term full funding of the cost of benefits provided by LACERS. To achieve that goal, the future actuarially determined contributions, together with current assets and expected investment income, are expected to be sufficient to provide all projected future benefit payments for current plan members.

Assumption Changes since Prior Valuation

The non-economic actuarial assumptions described above have been updated as a result of the July 1, 2014 through June 30, 2017 Actuarial Experience Study.

The ultimate trend rate was reduced from 4.50% to 4.00% for Medicare Part B and Dental.

Starting premium costs and first year trends were revised to reflect 2019 calendar year premium data.

Medical and dental carrier election assumptions were updated.

The spouse coverage and retiree medical participation assumptions were updated.

Summary of Plan Provisions

LACERS administers a single–employer postemployment health care plan. The following summarizes the major benefit provisions as included in the valuation. To the best of our knowledge, the summary represents the substantive plans as of the measurement date. It is not intended to be, nor should it be interpreted as, a complete statement of all benefit provisions.

Summary of Plan Provisions (Continued)

Membership Eligibility

Tier 1 (§4.1002(a))

All employees who became Members of LACERS before July 1, 2013, and certain employees who became Members of LACERS on or after July 1, 2013. In addition, pursuant to Ordinance No. 184134, all Tier 2 employees who became Members of LACERS between July 1, 2013 and February 21, 2016 were transferred to Tier 1 effective February 21, 2016 (refer to Note 3 – Postemployment Health Care Plan Description on page 33 regarding the membership).

Tier 3 (§4.1080.2(a))

All employees who became Members of LACERS on or after February 21, 2016, except as provided otherwise in Section 4.1080.2(b) of the Los Angeles Administrative Code.

Benefit Eligibility

Tier 1 (§4.1111(a)) and Tier 3 (§4.1126(a))

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

Medical Subsidy for Members Not Subject to Cap

Under Age 65 or Over Age 65 Without Medicare Part A:

Tier 1 (§4.1111(d)) and Tier 3 (§4.1126(c))

Both Tier 1 and Tier 3 Members will be eligible for 40% of maximum medical plan premium subsidy for 1 – 10 whole years of service credit, and eligible Members earn 4% per year of service credit for their annual medical subsidy accrual after 10 years of service (limited to actual premium). As of July 1, 2018, the maximum monthly health subsidy is $1,790.80, remaining unchanged in calendar year 2019. This amount includes coverage of dependent premium costs.

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

Tier 1 (§4.1111(e)) and Tier 3 (§4.1126(d))

For retirees, a maximum health subsidy shall be paid in the amount of the single-party monthly premium of the approved Medicare supplemental or coordinated plan in which the retiree is enrolled, subject to the following vesting schedule:

Completed Years of Service Credit	Vested Percentage
1-14	75%
15-19	90%
20+	100%

Subsidy Cap for Tier 1

Tier 1 (§4.1111(b))

As of the June 30, 2011 valuation, the retiree health benefits program was changed to cap the medical subsidy for non-retired Members who do not contribute an additional 4.0% or 4.5% of employee contributions to the System.

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

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

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

Dependents

Tier 1 (§4.1111(e)(4)) and Tier 3 (§4.1126(d)(4))

An additional amount is added for coverage of dependents which shall not exceed the amount provided to a retiree not enrolled in Medicare Parts A and B and covered by the same medical plan with the same years of service credit. The combined Member and dependent subsidy shall not exceed the actual premium. This refers to dependents of retired Members with Medicare Parts A and B. It does not apply to those without Medicare or Part B only.

Summary of Plan Provisions (Continued)

Dental Subsidy for Members

Tier 1 (§4.1114(b)) and Tier 3 (§4.1129(b))

The System will pay 4% of the maximum dental subsidy (limited to actual premium) for each year of Service Credit, up to 100% of the maximum dental subsidy. As of July 1, 2018, the maximum dental subsidy is $44.60 per month; remaining unchanged in calendar year 2019.

There is no subsidy available to spouses or domestic partners or for dependent coverage. There is also no reimbursement for dental plans not sponsored by the System.

Medicare Part B Reimbursement for Members

Tier 1 (§4.1113) and Tier 3 (§4.1128)

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

Medical Subsidy for Surviving Spouse

Tier 1 (§4.1115) and Tier 3 (§4.1129.1)

The surviving spouse or domestic partner will be entitled to a health subsidy based on the Member's years of service credit and the surviving dependent's eligibility for Medicare.

Under Age 65 or Over Age 65 Without Medicare Part A

The maximum health subsidy available for survivors is the lowest cost plan available (currently Kaiser) single-party premium ($853.39 per month as of July 1, 2018, remaining unchanged in calendar year 2019).

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

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

Completed Years of Service Credit	Vested Percentage
1-14	75%
15-19	90%
20+	100%

Changes in Plan Provisions

A new Tier 1 Enhanced Plan providing a higher retirement benefit was adopted pursuant to Ordinance No. 184853. However, other than the actuary applying higher retirement rate assumptions to anticipate somewhat earlier retirement, there are no differences between the retiree health benefits paid by LACERS to those members.

Statistical

Statistical Section

The Statistical Section of the System's Comprehensive Annual Financial Report provides additional historical trend information to assist the reader in gaining a more comprehensive understanding of the current fiscal year's financial statements, note disclosures, and required supplementary information, which cover the System's Retirement Plan and the Postemployment Health Care Plan. This section also provides multi-year trending of financial and operating information to facilitate comprehensive understanding of how the System's financial position and performance has changed over time. More specifically, the financial and operating information provides contextual data for the System's revenues (additions), expenses (deductions), net increase or decrease in fiduciary net position, benefit expenses by type, number of retirees by different types of benefits, and average monthly benefit payments.
The financial and operating trend information is as follows:

Schedule of Additions by Source - Retirement Plan

(Dollars in Thousands)

Fiscal Year	Member Contributions	Employer Contributions[1] Amounts	Employer Contributions[1] As a % of Annual Covered Payroll[2]	Net Investment Income (Loss)[3]	Total Additions
2009	$ 118,592	$ 288,516	15.0%	$ (1,800,906)	$ (1,393,798)
2010	126,961	266,240	14.2	911,088	1,304,289
2011	114,731	306,737	18.1	1,654,824	2,076,292
2012	178,246	308,712	18.0	72,705	559,663
2013	197,881	346,350	19.9	1,275,612	1,819,843
2014	204,136	357,818	19.8	1,820,266	2,382,220
2015	207,564	381,299	20.8	308,557	897,420
2016	211,345	440,704	23.5	27,638	679,687
2017	227,532	453,504	23.0	1,524,533	2,205,569
2018	236,222	450,338	21.9	1,249,814	1,936,374

(1) Contributions received on July 15th of the fiscal year with discounted rate.
(2) Starting fiscal year 2014, when a new benefit tier was added, % of Annual Covered Payroll is an aggregate rate for all tiers and it is based on actual covered payroll.
(3) Includes unrealized gains and losses of investments. Investment related administrative expenses are included starting fiscal year 2014 pursuant to GASB Statement No. 67.

Schedule of Deductions by Type - Retirement Plan

(In Thousands)

Fiscal Year	Benefit Payments	Refunds of Contributions	Administrative Expenses[1]	Total Deductions
2009	$ 510,634	$ 21,325	$ 12,829	$ 544,788
2010	569,938	27,971	14,204	612,113
2011	654,384	18,215	13,232	685,831
2012	664,626	11,100	12,995	688,721
2013	687,362	17,697	13,352	718,411
2014	708,956	15,982	12,438	737,376
2015	734,736	10,121	15,946	760,803
2016	767,264	7,719	15,576	790,559
2017	799,221	9,803	16,019	825,043
2018	847,031	10,412	16,394	873,837

(1) Excludes investment related administrative expenses starting fiscal year 2014. Starting fiscal year 2015, the System is required to share the employer contribution for its employees' retirement benefits.

Schedule of Additions by Source - Postemployment Health Care Plan

(Dollars in Thousands)

Fiscal Year	Employer Contributions[1] Amounts	Employer Contributions[1] As a % of Annual Covered Payroll[2]	Net Investment Income (Loss)[3]	Total Additions
2009	$ 95,122	5.2 %	$ (309,334)	$ (214,212)
2010	96,511	5.3	155,745	252,256
2011	107,396	6.4	295,324	402,720
2012	115,209	6.7	10,314	125,523
2013	72,916	4.2	253,632	326,548
2014	97,841	5.4	375,504	473,345
2015	100,467	5.5	59,435	159,902
2016	105,983	5.7	(721)	105,262
2017	97,457	4.9	330,368	427,825
2018	100,909	4.9	269,065	369,974

(1) Contributions received on July 15th of the fiscal year with discounted rate.
(2) Starting fiscal year 2014, when a new benefit tier was added, % of annual covered payroll is an aggregate rate for all tiers and it is based on actual covered payroll.
(3) Includes unrealized gains and losses of investments. Investment related administrative expenses are included starting fiscal year 2014.

Schedule of Deductions by Type - Postemployment Health Care Plan

(In Thousands)

Fiscal Year	Benefit Payments	Administrative Expenses[1]	Total Deductions
2009	$ 73,839	$ 2,569	$ 76,408
2010	83,196	2,859	86,055
2011	98,156	2,786	100,942
2012	91,437	2,931	94,368
2013	97,946	3,197	101,143
2014	101,628	3,327	104,955
2015	103,599	3,932	107,531
2016	109,940	4,151	114,091
2017	119,616	4,224	123,840
2018	128,081	4,384	132,465

(1) Excludes investment related administrative expenses starting fiscal year 2014. Starting fiscal year 2015, the System is required to share the employer contribution for its employees' postemployment healthcare benefits.

Net Increase (Decrease) in Fiduciary Net Position - Retirement Plan
Last Ten Fiscal Years

(In Thousands)

	Additions				Deductions				
Fiscal Year	City Contributions	Member Contributions	Net Investment Income (Loss)	Total Additions	Benefit Payments	Refunds of Contributions	Admin. Expenses[(1)]	Total Deductions	Net In(De)crease in Fiduciary Net Position
2009	$ 288,516	$ 118,592	$(1,800,906)	$(1,393,798)	$ 510,634	$ 21,325	$ 12,829	$ 544,788	$ (1,938,586)
2010	266,240	126,961	911,088	1,304,289	569,938	27,971	14,204	612,113	692,176
2011	306,737	114,731	1,654,824	2,076,292	654,384	18,215	13,232	685,831	1,390,461
2012	308,712	178,246	72,705	559,663	664,626	11,100	12,995	688,721	(129,058)
2013	346,350	197,881	1,275,612	1,819,843	687,362	17,697	13,352	718,411	1,101,432
2014	357,818	204,136	1,820,266	2,382,220	708,956	15,982	12,438	737,376	1,644,844
2015	381,299	207,564	308,557	897,420	734,736	10,121	15,946	760,803	136,617
2016	440,704	211,345	27,638	679,687	767,264	7,719	15,576	790,559	(110,872)
2017	453,504	227,532	1,524,533	2,205,569	799,221	9,803	16,019	825,043	1,380,526
2018	450,338	236,222	1,249,814	1,936,374	847,031	10,412	16,394	873,837	1,062,537

(1) Excludes investment related administrative expenses starting fiscal year 2014. Starting fiscal year 2015, the System is required to share the employer contribution for its employees' retirement benefits.

Net Increase (Decrease) in Fiduciary Net Position - Postemployment Health Care Plan
Last Ten Fiscal Years

(In Thousands)

	Additions			Deductions			
Fiscal Year	City Contributions	Net Investment Income (Loss)	Total Additions	Benefit Payments	Admin. Expenses[(1)]	Total Deductions	Net In(De)crease in Fiduciary Net Position
2009	$ 95,122	$ (309,334)	$ (214,212)	$ 73,839	$ 2,569	$ 76,408	$ (290,620)
2010	96,511	155,745	252,256	83,196	2,859	86,055	166,201
2011	107,396	295,324	402,720	98,156	2,786	100,942	301,778
2012	115,209	10,314	125,523	91,437	2,931	94,368	31,155
2013	72,916	253,632	326,548	97,946	3,197	101,143	225,405
2014	97,841	375,504	473,345	101,628	3,327	104,955	368,390
2015	100,467	59,435	159,902	103,599	3,932	107,531	52,371
2016	105,983	(721)	105,262	109,940	4,151	114,091	(8,829)
2017	97,457	330,368	427,825	119,616	4,224	123,840	303,985
2018	100,909	269,065	369,974	128,081	4,384	132,465	237,509

(1) Excludes investment related administrative expenses starting fiscal year 2014. Starting fiscal year 2015, the System is required to share the employer contribution for its employees' postemployment healthcare benefits.

Schedule of Benefit Expenses by Type - Retirement Plan

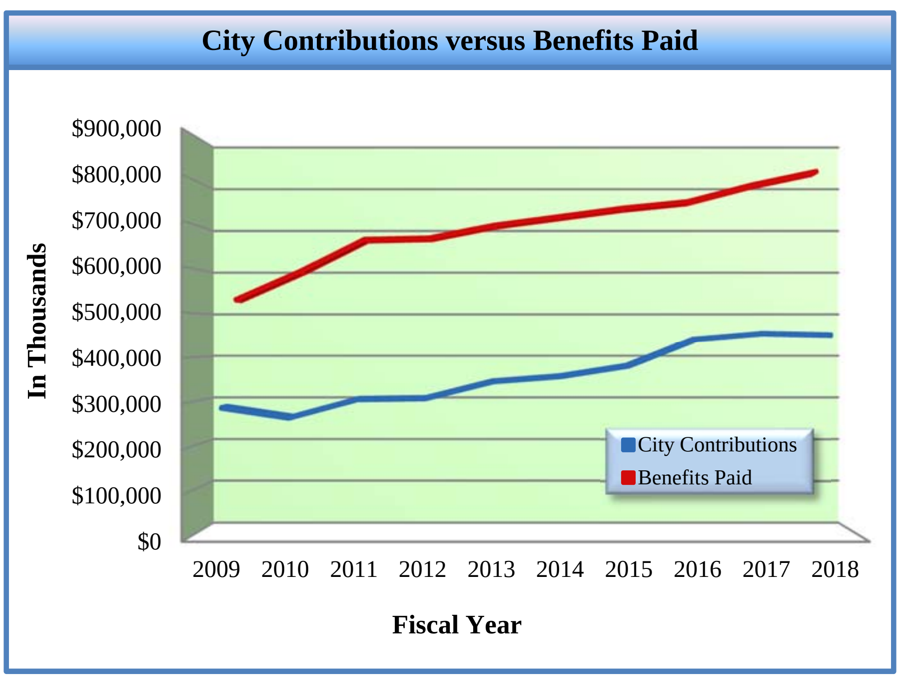
(In Thousands)

	Benefits						Refunds of Contributions					
	Age & Service Benefits			Disability Benefits								
Fiscal Year	Retirants	Survivors	Death in Service	Retirants	Survivors	Sub-total	Separation	Death in Service	Unused Contributions	Misc.	Sub-Total	Total Benefits Paid
2009	$ 428,819	$ 56,716	$ 2,735	$ 15,462	$ 6,902	$ 510,634	$ 17,081	$ 1,312	$ 1,390	$1,542	$ 21,325	$ 531,959
2010	483,295	60,299	2,699	16,268	7,377	569,938	21,814	1,269	1,094	3,794	27,971	597,909
2011	563,254	64,160	2,674	16,544	7,752	654,384	13,951	1,640	1,281	1,343	18,215	672,599
2012	570,633	66,735	2,477	16,720	8,061	664,626	6,765	2,416	965	954	11,100	675,726
2013	588,035	70,298	2,776	17,810	8,443	687,362	13,103	2,515	1,006	1,073	17,697	705,059
2014	606,135	73,477	2,669	17,657	9,018	708,956	12,295	1,509	1,184	994	15,982	724,938
2015	627,865	76,619	2,537	18,348	9,367	734,736	3,891	1,848	1,342	3,040	10,121	744,857
2016	657,810	78,441	2,315	19,001	9,697	767,264	4,241	1,231	883	1,364	7,719	774,983
2017	686,172	81,250	2,738	18,810	10,251	799,221	4,213	3,015	1,027	1,548	9,803	809,024
2018	731,954	83,387	2,402	18,850	10,438	847,031	5,686	1,653	1,588	1,485	10,412	857,443

City Contributions versus Benefits Paid - Retirement Plan

(In Thousands)

Fiscal Year	City Contributions	Benefits Paid
2009	$ 288,516	$ 531,959
2010	266,240	597,909
2011	306,737	672,599
2012	308,712	675,726
2013	346,350	705,059
2014	357,818	724,938
2015	381,299	744,857
2016	440,704	774,983
2017	453,504	809,024
2018	450,338	857,443



Schedule of Benefit Expenses by Type - Postemployment Health Care Plan

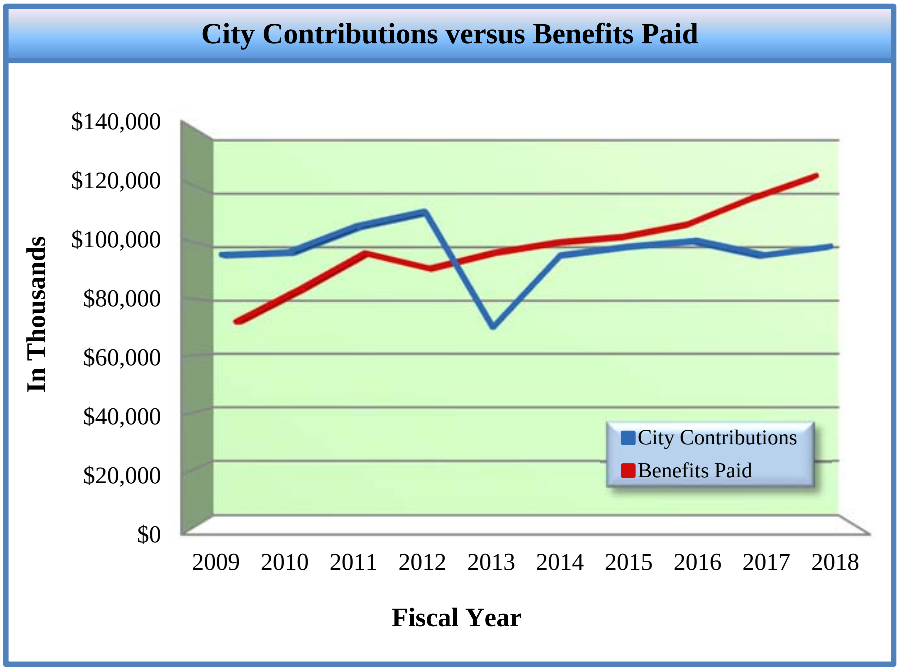
(In Thousands)

Fiscal Year	Age & Service Benefits		Death in Service Benefits	Disability Benefits		Total Benefits Paid
	Retirants	Survivors		Retirants	Survivors	
2009	$ 62,009	$ 8,201	$ 396	$ 2,236	$ 997	$ 73,839
2010	70,548	8,802	394	2,375	1,077	83,196
2011	84,487	9,624	401	2,481	1,163	98,156
2012	78,506	9,181	341	2,300	1,109	91,437
2013	83,792	10,017	396	2,538	1,203	97,946
2014	86,889	10,533	382	2,531	1,293	101,628
2015	88,530	10,803	358	2,587	1,321	103,599
2016	94,256	11,240	332	2,723	1,389	109,940
2017	102,697	12,160	410	2,815	1,534	119,616
2018	110,680	12,609	363	2,851	1,578	128,081

City Contributions versus Benefits Paid - Postemployment Health Care Plan

(In Thousands)

Fiscal Year	City Contributions	Benefits Paid
2009	$ 95,122	$ 73,839
2010	96,511	83,196
2011	107,396	98,156
2012	115,209	91,437
2013	72,916	97,946
2014	97,841	101,628
2015	100,467	103,599
2016	105,983	109,940
2017	97,457	119,616
2018	100,909	128,081



Schedule of Retired Members by Type of Benefits - Retirement Plan

Amount of Monthly Benefits	Number of Retirants[1]	Type of Benefits[2] 1	2	3	4	5	6	7	8	9	10	11
$ 1 to $1,000	1,787	370	357	8	455	74	167	91	265	-	413	15
1,001 to 2,000	3,584	1,086	872	65	500	606	85	212	158	-	74	1
2,001 to 3,000	3,169	1,950	564	83	228	196	18	69	61	-	16	-
3,001 to 4,000	3,115	2,604	256	78	120	15	3	16	23	-	3	-
4,001 to 5,000	2,730	2,483	159	32	43	3	-	1	9	-	1	-
5,001 to 6,000	1,929	1,786	104	13	22	1	-	-	3	-	-	-
6,001 to 7,000	1,193	1,120	48	6	18	-	-	-	1	-	-	-
7,001 to 8,000	663	623	22	6	12	-	-	-	-	-	-	-
8,001 to 9,000	434	401	19	7	6	-	-	-	1	-	-	-
9,001 to 10,000	267	254	9	2	2	-	-	-	-	-	-	-
Over $10,000	464	439	16	1	7	-	-	-	1	-	-	-
Total	19,335	13,116	2,426	301	1,413	895	273	389	522	-	507	16

(1) Larger Annuity and Larger Annuity Continuance type of benefits are not included in counting the total number of retirants since both benefits are voluntary supplementary benefits to the retirants.

(2) Type of Benefits

1 - Service Retirement
2 - Service Continuance
3 - Service Survivorship
4 - Vested Right Retirement
5 - Disability Retirement
6 - Disability Continuance
7 - Disability Survivorship
8 - DRO Life Time Annuity
9 - DRO Term Annuity
10 - Larger Annuity
11 - Larger Annuity Continuance

Schedule of Retired Members by Type of Benefits - Postemployment Health Care Plan

Amount of Monthly Benefits	Number of Retirants	Type of Benefits[3] 1	2	3	4	5	6	7
Medical Subsidy								
$ 1 to $ 200	489	324	41	5	40	47	19	13
201 to 400	4,538	3,269	944	81	114	56	24	50
401 to 600	4,835	4,070	400	45	190	82	18	30
601 to 800	172	93	14	14	24	12	2	13
801 to 1,000	1,125	857	92	28	95	44	3	6
1,001 to 1,200	1,844	1,773	-	-	54	17	-	-
1,201 to 1,400	880	803	-	-	54	23	-	-
1,401 to 1,791[1]	1,294	1,245	-	-	43	6	-	-
Total	15,177	12,434	1,491	173	614	287	66	112
Dental Subsidy								
$ 1 to $ 10	662	487	-	-	74	101	-	-
11 to 20	2,330	2,183	-	-	99	48	-	-
21 to 30	896	668	-	-	148	80	-	-
31 to 40	1,032	852	-	-	142	38	-	-
41 to 45[2]	8,041	7,887	-	-	135	19	-	-
Total	12,961	12,077	-	-	598	286	-	-

(1) Maximum medical subsidy for plan year 2018.
(2) Maximum dental subsidy for plan year 2018.
(3) Type of Benefits

1 - Service Retirement
2 - Service Continuance
3 - Service Survivorship
4 - Vested Right Retirement
5 - Disability Retirement
6 - Disability Continuance
7 - Disability Survivorship

Schedule of Average Benefit Payments - Retirement Plan

Retirement Effective Dates July 1, 2008 to June 30, 2018	Years of Service Credit: Under 11 yrs	11-15 yrs	16-20 yrs	21-25 yrs	26-30 yrs	Over 30 yrs
Period 7/1/08 to 6/30/09						
Average Monthly Benefit at Retirement	$ 759	$ 1,626	$ 2,348	$ 3,109	$ 4,150	$ 5,513
Average Final Monthly Salary(1)	$ 4,561	$ 5,739	$ 5,820	$ 6,078	$ 6,241	$ 6,954
Number of Retirees Added	25	21	51	63	55	121
Period 7/1/09 to 6/30/10						
Average Monthly Benefit at Retirement	$ 907	$ 1,964	$ 2,810	$ 3,911	$ 4,674	$ 5,818
Average Final Monthly Salary(1)	$ 3,755	$ 5,525	$ 6,030	$ 6,316	$ 6,514	$ 6,708
Number of Retirees Added (2)	94	140	137	365	559	1,238
Period 7/1/10 to 6/30/11						
Average Monthly Benefit at Retirement	$ 768	$ 1,414	$ 2,369	$ 3,146	$ 3,721	$ 5,920
Average Final Monthly Salary(1)	$ 5,266	$ 5,175	$ 6,141	$ 6,424	$ 6,409	$ 7,882
Number of Retirees Added	51	42	27	55	42	37
Period 7/1/11 to 6/30/12						
Average Monthly Benefit at Retirement	$ 784	$ 1,379	$ 2,362	$ 3,453	$ 4,008	$ 6,003
Average Final Monthly Salary(1)	$ 4,995	$ 5,052	$ 6,338	$ 7,165	$ 6,804	$ 8,238
Number of Retirees Added	46	37	30	70	43	48
Period 7/1/12 to 6/30/13						
Average Monthly Benefit at Retirement	$ 976	$ 1,888	$ 2,253	$ 3,355	$ 4,101	$ 5,487
Average Final Monthly Salary(1)	$ 6,025	$ 6,713	$ 6,055	$ 6,819	$ 7,007	$ 7,573
Number of Retirees Added	63	57	34	94	87	107
Period 7/1/13 to 6/30/14						
Average Monthly Benefit at Retirement	$ 708	$ 1,966	$ 2,459	$ 3,716	$ 4,520	$ 6,204
Average Final Monthly Salary(1)	$ 4,551	$ 6,868	$ 6,343	$ 7,551	$ 7,482	$ 8,350
Number of Retirees Added	60	65	47	83	120	95
Period 7/1/14 to 6/30/15						
Average Monthly Benefit at Retirement	$ 969	$ 1,875	$ 2,775	$ 3,735	$ 4,707	$ 6,307
Average Final Monthly Salary(1)	$ 5,309	$ 6,386	$ 7,040	$ 7,289	$ 7,795	$ 8,379
Number of Retirees Added	66	108	62	111	234	212
Period 7/1/15 to 6/30/16						
Average Monthly Benefit at Retirement	$ 943	$ 1,756	$ 2,514	$ 3,796	$ 4,514	$ 5,498
Average Final Monthly Salary(1)	$ 5,095	$ 6,077	$ 6,786	$ 7,656	$ 7,731	$ 7,876
Number of Retirees Added	117	116	89	77	255	228
Average Monthly Continuance Benefit(3)	$ 886	$ 1,068	$ 1,388	$ 1,521	$ 1,657	$ 2,568
Number of Continuance Benefit Added(3)	79	29	24	41	32	65
Period 7/1/16 to 6/30/17						
Average Monthly Benefit at Retirement	$ 1,076	$ 1,764	$ 2,546	$ 3,412	$ 4,789	$ 5,745
Average Final Monthly Salary(1)	$ 5,553	$ 6,326	$ 6,974	$ 7,696	$ 8,053	$ 8,204
Number of Retirees Added	105	99	104	107	263	271
Average Monthly Continuance Benefit(3)	$ 1,154	$ 1,022	$ 1,360	$ 1,949	$ 1,869	$ 2,916
Number of Continuance Benefit Added(3)	70	19	30	38	50	55
Period 7/1/17 to 6/30/18						
Average Monthly Benefit at Retirement	$ 1,291	$ 1,913	$ 2,739	$ 3,922	$ 5,037	$ 6,348
Average Final Monthly Salary(1)	$ 5,869	$ 6,707	$ 7,100	$ 7,896	$ 8,292	$ 8,758
Number of Retirees Added	115	115	136	85	247	377
Average Monthly Continuance Benefit(3)	$ 1,012	$ 1,411	$ 1,562	$ 2,076	$ 2,830	$ 3,812
Number of Continuance Benefit Added(3)	70	25	26	28	49	54

(1) Average Final Monthly Salary = Average of last or highest 12 consecutive months' salary.
(2) Large increase primarily due to accelerated retirements stimulated by the City's Early Retirement Incentive Program (ERIP).
(3) Additional information for Continuance Benefit is provided starting fiscal year 2016.

Schedule of Average Benefit Payments - Postemployment Health Care Plan

Retirement Effective Dates July 1, 2008 to June 30, 2018	Years of Service Credit: Under 10 yrs[1]	10-15 yrs	16-20 yrs	21-25 yrs	Over 25 yrs
Period 7/1/08 to 6/30/09					
Health Insurance Subsidy					
Average Monthly Benefit at Retirement	$ -	$ 354	$ 508	$ 613	$ 661
Number of Retirees Added	-	20	56	50	251
Dental Insurance Subsidy					
Average Monthly Benefit at Retirement	$ -	$ 12	$ 16	$ 20	$ 23
Number of Retirees Added	2	20	51	48	251
Period 7/1/09 to 6/30/10					
Health Insurance Subsidy					
Average Monthly Benefit at Retirement	$ -	$ 385	$ 562	$ 634	$ 786
Number of Retirees Added [2]	8	116	110	267	1,978
Dental Insurance Subsidy					
Average Monthly Benefit at Retirement	$ -	$ 12	$ 21	$ 26	$ 28
Number of Retirees Added [2]	11	120	102	261	1,987
Period 7/1/10 to 6/30/11					
Health Insurance Subsidy					
Average Monthly Benefit at Retirement	$ -	$ 465	$ 440	$ 688	$ 648
Number of Retirees Added	1	31	31	69	145
Dental Insurance Subsidy					
Average Monthly Benefit at Retirement	$ -	$ 12	$ 17	$ 22	$ 17
Number of Retirees Added	2	26	26	68	130
Period 7/1/11 to 6/30/12					
Health Insurance Subsidy					
Average Monthly Benefit at Retirement	$ -	$ 372	$ 581	$ 660	$ 642
Number of Retirees Added	-	34	27	84	136
Dental Insurance Subsidy					
Average Monthly Benefit at Retirement	$ -	$ 10	$ 17	$ 28	$ 25
Number of Retirees Added	4	25	24	75	131
Period 7/1/12 to 6/30/13					
Health Insurance Subsidy					
Average Monthly Benefit at Retirement	$ -	$ 428	$ 596	$ 790	$ 840
Number of Retirees Added	1	64	33	102	243
Dental Insurance Subsidy					
Average Monthly Benefit at Retirement	$ -	$ 14	$ 21	$ 28	$ 26
Number of Retirees Added	2	55	27	95	235
Period 7/1/13 to 6/30/14					
Health Insurance Subsidy					
Average Monthly Benefit at Retirement	$ -	$ 447	$ 619	$ 831	$ 876
Number of Retirees Added	1	57	41	93	276
Dental Insurance Subsidy					
Average Monthly Benefit at Retirement	$ -	$ 15	$ 20	$ 30	$ 27
Number of Retirees Added	2	53	36	91	266

Schedule of Average Benefit Payments - Postemployment Health Care Plan (Continued)

Retirement Effective Dates July 1, 2008 to June 30, 2018	Years of Service Credit: Under 10 yrs(1)	10-15 yrs	16-20 yrs	21-25 yrs	Over 25 yrs
Period 7/1/14 to 6/30/15					
Health Insurance Subsidy					
Average Monthly Benefit at Retirement	$ -	$ 543	$ 700	$ 914	$ 1,080
Number of Retirees Added	-	85	40	105	409
Dental Insurance Subsidy					
Average Monthly Benefit at Retirement	$ -	$ 17	$ 26	$ 32	$ 36
Number of Retirees Added	1	78	35	102	399
Period 7/1/15 to 6/30/16					
Health Insurance Subsidy					
Average Monthly Benefit at Retirement	$ 309	$ 515	$ 729	$ 926	$ 1,099
Number of Retirees Added	12	88	62	61	447
Dental Insurance Subsidy					
Average Monthly Benefit at Retirement	$ 11	$ 16	$ 24	$ 34	$ 35
Number of Retirees Added	16	89	57	60	453
Period 7/1/16 to 6/30/17					
Health Insurance Subsidy					
Average Monthly Benefit at Retirement	$ 411	$ 493	$ 717	$1,136	$ 1,184
Number of Retirees Added	17	76	79	85	487
Dental Insurance Subsidy					
Average Monthly Benefit at Retirement	$ 11	$ 18	$ 25	$ 34	$ 38
Number of Retirees Added	10	75	78	82	483
Period 7/1/17 to 6/30/18					
Health Insurance Subsidy					
Average Monthly Benefit at Retirement	$ -	$ 547	$ 771	$ 1,082	$1,257
Number of Retirees Added	-	100	115	86	638
Dental Insurance Subsidy					
Average Monthly Benefit at Retirement	$ 5	$ 17	$ 27	$ 31	$ 36
Number of Retirees Added	1	80	98	68	552

(1) Effective February 21, 2016, retiree health benefits are provided to part-time employees who retired with 10 years of service but less than 10 years of service credit. Previously, they were allowed to enroll in LACERS Health Care Plan at their own cost, but not eligible for health benefits.

(2) Large increase is primarily due to accelerated retirements stimulated by the City's Early Retirement Incentive Program (ERIP).

Direct questions concerning any of the information provided in this report to:

LACERS
Fiscal Management Section
PO Box 512218
Los Angeles, CA 90051-0218

(800) 779-8328
(888) 349-3996 TTY
(213) 473-7297 FAX
www.LACERS.org

LACERS
LOS ANGELES CITY EMPLOYEES'
RETIREMENT SYSTEM
Securing Your Tomorrows

Agenda of: JAN. 22, 2019

Item No: V-B

MONTHLY REPORT ON SEMINARS AND CONFERENCES ATTENDED BY BOARD MEMBERS ON BEHALF OF LACERS (FOR THE MONTH OF NOVEMBER 2018)

In accordance with Section V.H.2 of the approved Board Education and Travel Policy, Board Members are required to report to the Board, on a monthly basis at the last Board meeting of each month, seminars and conferences they attended as a LACERS representative or in the capacity of a LACERS Board Member which are either complimentary (no cost involved) or with expenses fully covered by the Board Member. This monthly report shall include all seminars and conferences attended during the 4-week period preceding the Board meeting wherein the report is to be presented.

BOARD MEMBER:

President Cynthia M. Ruiz
Vice President Elizabeth L. Greenwood

Commissioner Elizabeth Lee
Commissioner Sandra Lee
Commissioner Nilza R. Serrano
Commissioner Sung Won Sohn
Commissioner Michael R. Wilkinson

DATE(S) OF EVENT	SEMINAR / CONFERENCE TITLE	EVENT SPONSOR (ORGANIZATION)	LOCATION (CITY, STATE)
	NOTHING TO REPORT		

Agenda of: **<u>JAN. 22, 2019</u>**
Item No: **<u>V-C</u>**

MONTHLY REPORT ON SEMINARS AND CONFERENCES
ATTENDED BY BOARD MEMBERS ON BEHALF OF LACERS
(FOR THE MONTH OF DECEMBER 2018)

In accordance with Section V.H.2 of the approved Board Education and Travel Policy, Board Members are required to report to the Board, on a monthly basis at the last Board meeting of each month, seminars and conferences they attended as a LACERS representative or in the capacity of a LACERS Board Member which are either complimentary (no cost involved) or with expenses fully covered by the Board Member. This monthly report shall include all seminars and conferences attended during the 4-week period preceding the Board meeting wherein the report is to be presented.

<u>BOARD MEMBER:</u>

President Cynthia M. Ruiz
Vice President Elizabeth L. Greenwood

Commissioner Elizabeth Lee
Commissioner Sandra Lee
Commissioner Nilza R. Serrano
Commissioner Sung Won Sohn
Commissioner Michael R. Wilkinson

DATE(S) OF EVENT	SEMINAR / CONFERENCE TITLE	EVENT SPONSOR (ORGANIZATION)	LOCATION (CITY, STATE)
	NOTHING TO REPORT		

LACERS
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

Report to Board of Administration

From:	Neil M. Guglielmo, General Manager	Agenda of:	**January 22, 2019**
		ITEM:	**VI-A**

SUBJECT: **ADOPTION OF 2019 EMPLOYEE MEMBER OF THE BOARD ELECTION CALENDAR AND POSSIBLE BOARD ACTION**

Recommendation:

That the Board adopt the proposed calendar for the 2019 Election of the Employee-Member of the Board for the term ending June 30, 2024, and direct the General Manager to proceed accordingly.

Discussion:

The attached calendar has been prepared in collaboration with the staff of the City Clerk – Election Division, and in accordance with Ordinance 178442, which sets forth the procedure for the City Clerk to administer and conduct elections for Employee-Members of the LACERS Board of Administration.

Upon adoption of the Election Calendar, the Commission Executive Assistant will initiate preparation of all required materials, such as formal notification to the City Clerk's Office and the General Manager of the Personnel Department, nominating petitions, and forms for submitting candidate qualification statements.

This report was prepared by Ani Ghoukassian, Commission Executive Assistant II.

Attachment: Proposed 2019 Employee-Member of the Board Election Calendar

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM (LACERS)
202 W. First Street, Suite 500
Los Angeles, CA 90012-4401

2019 ELECTION CALENDAR
Office of Employee-Member of the Board of Administration

Term Ending June 30, 2024

February 1 (Fri.)	LACERS shall formally notify the City Clerk and the General Manager of the Personnel Department of the election, and forward notices of the upcoming election and nominating procedure to all work sites.
February 12 (Tue.)	Nominating Petitions will be available at the LACERS Office, 202 W. First Street, Suite 500, Los Angeles, CA 90012-4401 during regular office hours of 8:00 a.m. to 5:00 p.m. Monday to Friday.
February 26 (Tue.)	The deadline to file Nominating Petitions and the Qualification Statement Form will be at 5:00 p.m. on Feb. 26, 2019 at the LACERS Office, 202 W. First Street, Suite 500, Los Angeles, CA 90012-4401. A candidate must be nominated by petition with a minimum of 100 but no more than 200 valid signatures from active LACERS members in order to qualify for the election ballot. Interested candidates have the option to submit a typewritten statement of qualifications (not to exceed 250 words) to be enclosed with the official ballot and voting instructions, and an occupational ballot designation to appear on the ballot under the candidate's name. Any candidate who does not submit a qualification statement or an occupational ballot designation by the Nominating Petition filing deadline shall be considered to have declined to file a statement, and the sections for the qualification statement or occupational ballot designation shall be left blank.
March 1 (Fri.)	A public drawing of letters to determine the random alphabetical order of appearance of the candidates' names upon the ballot will be conducted at 9:00 a.m., on March 1, 2019 at the City Clerk – Election Division Office, 555 Ramirez Street, Space 300, Los Angeles, CA 90012.
March 11 (Mon.)	A Notice of Election with a sample ballot shall be posted in the City Clerk – Election Division Office specifying the election date, names of each qualifying candidate, voting eligibility rules, and voting instructions. The Notice of Election will be forwarded to all work sites.
March 22 (Fri.)	An official ballot, voting instructions, and candidate qualification statements will be mailed to the home address of each eligible voter. An identification envelope and return envelope will also be included in the ballot packet.
April 2 (Tue.)	Beginning April 2, 2019, ballots marked in accordance with the voting instructions may be deposited in any United States postal mailbox in time to be received by the City Clerk – Election Division Office no later than 5:00 p.m. on April 9, 2019, the day of the election. The voter shall enclose the voted ballot in the provided identification envelope with the voter's name, mailing address, last four digits of their Social Security Number, signature, and date of signature affixed on the identification envelope. The identification envelope containing the voted ballot and voter information shall be returned in the return envelope provided.

April 2 (Tue.) through April 9 (Tue.)	New employees having become active LACERS members on or after March 18, 2019 may present themselves in the City Clerk – Election Division Office during regular office hours of 8:00 a.m. to 5:00 p.m., Monday to Friday, to obtain an official ballot no earlier than April 2, 2019, and no later than 5:00 p.m., on April 9, 2019. New Employees must present a Personnel Department – issued Certificate verifying their eligibility to vote, the certificate can be obtained at City Personnel Department, Employment Verification Section, 700 East Temple Street, Los Angeles, CA 90012. Eligible voters may personally deposit their ballots enclosed in a return envelope in the ballot box located in the City Clerk – Election Division Office during regular office hours no earlier than April 2, 2019 and no later than 5 p.m. on April 9, 2019. Any eligible voter who has inadvertently damaged or spoiled an official ballot may obtain a replacement ballot by calling (213) 978-0440. Any eligible voter who has lost or did not receive an official ballot may obtain a replacement ballot upon filing a signed Affidavit of Loss/No-Receipt at the City Clerk – Election Division Office no later than April 9, 2019.
April 5 (Fri.)	Candidates may each designate no more than two (2) observers to observe that ballots are properly cast and votes are properly counted at the City Clerk – Election Division Tally Center on April 11, 2019. Candidates may also observe in addition to the designated observers. The names of all designated observers and candidates who wish to attend shall be presented to the City Clerk – Election Division no later than 5:00 p.m. on April 5, 2019.
April 9 (Tue.) ELECTION DAY	Any eligible voter who has not cast a ballot by mail may do so in person at the City Clerk – Election Division Office during the regular office hours of 8:00 a.m. to 5:00 p.m.
April 11 (Thur.)	The ballot will be counted and tallied at the City Clerk – Election Division Office starting at 9:00 a.m. on April 11, 2019. The candidate who receives at least 50% plus one of all votes cast shall be elected to the position of Employee Member of the Board ending June 30, 2024. If no candidate receives a majority of all votes cast, a run-off election will be conducted on May 10, 2019 for the two candidates receiving the highest number of votes.
April 16 (Tue.)	Any challenges to the proceedings, acts or omissions that may be material to the election shall be filed by written notice to the City Clerk no later than April 16, 2019. The City Clerk will review the protests and submit a report of findings and recommendations to the LACERS Board of Administration within 14 calendar days after the date of election.
April 23 (Tue.)	The City Clerk shall furnish the official certified results of the election to the LACERS Board of Administration within 14 calendar days after the date of election.
	RUN OFF IF NECESSARY
April 24 (Wed.)	A Notice of Election with a sample ballot shall be posted in the City Clerk – Election Division Office specifying the election date, names of each qualifying candidate, voting eligibility rules, and voting instructions. The Notice of Election will be forwarded to all work sites.
April 29 (Mon.)	An official ballot, voting instructions, and candidate qualification statements will be mailed to the home address of each eligible voter. An identification envelope and return envelope will also be included in the ballot packet.

May 3 (Fri.) through May 10 (Fri.)	New employees having become active LACERS members on or after April 17, 2019 may present themselves in the City Clerk – Election Division Office during regular office hours of 8:00 a.m. to 5:00 p.m., Monday to Friday, to obtain an official ballot no earlier than May 3, 2019, and no later than 5:00 p.m., on May 10, 2019. New Employees must present a Personnel Department – issued Certificate verifying their eligibility to vote, the certificate can be obtained at City Personnel Department, Employment Verification Section, 700 East Temple Street, Los Angeles, CA 90012. Eligible voters may personally deposit their ballots enclosed in a return envelope in the ballot box located in the City Clerk – Election Division Office during regular office hours no earlier than May 3, 2019 and no later than 5 p.m. on May 10, 2019. Any eligible voter who has inadvertently damaged or spoiled an official ballot may obtain a replacement ballot by calling (213) 978-0440. Any eligible voter who has lost or did not receive an official ballot may obtain a replacement ballot upon filing a signed Affidavit of Loss/No-Receipt at the City Clerk – Election Division Office no later than May 10, 2019.
May 7 (Tue.)	Candidates may each designate no more than two (2) observers to observe that ballots are properly cast and votes are properly counted at the City Clerk – Election Division Tally Center on May 13, 2019. Candidates may also observe in addition to the designated observers. The names of all designated observers and candidates who wish to attend shall be presented to the City Clerk – Election Division no later than 5:00 p.m. on May 7, 2019.
May 10 (Fri.) RUNOFF ELECTION DAY	Any eligible voter who has not cast a ballot by mail may do so in person at the City Clerk – Election Division Office during the regular office hours of 8:00 a.m. to 5:00 p.m.
May 13 (Mon.)	The ballot will be counted and tallied at the City Clerk – Election Division Office starting at 9:00 a.m. on May 13, 2019. The candidate who receives a plurality of all votes cast shall be declared elected to the position of Employee Member of the Board ending June 30, 2024.
May 16 (Thur.)	Any challenges to the proceedings, acts or omissions that may be material to the election shall be filed by written notice to the City Clerk no later than May 16, 2019. The City Clerk will review the protests and submit a report of findings and recommendations to the LACERS Board of Administration within 14 calendar days after the date of election.
May 24 (Fri.)	The City Clerk shall furnish the official certified results of the election to the LACERS Board of Administration within 14 calendar days after the date of election.

LACERS
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

Report to Board of Administration

Lita Payne for

From: Neil M. Guglielmo, General Manager

Agenda of: **JANUARY 22, 2019**

ITEM: **VIII - A**

SUBJECT: **BOARD RULES RELATED TO MEMBER AND BENEFITS ADMINISTRATION AND POSSIBLE BOARD ACTION**

Recommendation

That the Board approve the proposed Board Rules related to Member and Benefits Administration.

Discussion

LACERS' staff regularly reviews the Board Rules related to Member and Benefits Administration to assess the need for additional rules based on substantive changes involving LACERS' plan provisions, case law, the tax code or some other area affecting administration of the retirement benefits. Staff also reviews the Board Rules to determine whether the existing rules are no longer applicable or require revision.

Board Rules work in conjunction with the Administrative Code, Charter, State and Federal law, and the Internal Revenue Code to provide the necessary administrative framework to carry out the delivery of LACERS' retirement benefits. Additionally, Board Rules provide clarification and implementation guidelines for executing administrative procedures not specifically detailed within the aforementioned legislative and authoritative documents. Board Rules are part of the Board Manual.

These proposed rules (Attachment 1) will clarify guidelines related to: (1) the repayment of Survivor Contributions for Members returning to Active Service from a disability retirement; (2) the number of medical evaluations required for a dependent child under the Family Death Benefit Plan; (3) the delegation of authority to the General Manager to enter into agreements pursuant to Board Rule IRC 1(n) - Reduction of Benefits Priority; (4) the establishment of a "Normal Retirement Age" for Tier 1 and Tier 3; (5) defining the election period for a Separate Account; (6) amending the disability retirement application period for Airport Peace Officer Former Members under Tier 1 Enhanced Benefits; (7) the refund of additional contributions paid under Tier 1 Enhanced Benefits; and, (8) establishing the reconsideration period for denied Service-Connected Active Death claims.

The proposed rules have been reviewed by the Office of the City Attorney and Tax Counsel as to form.

Authority to Adopt Rules

The Board is authorized to adopt rules governing the administration of benefits and the Plan under Charter Section 1106 – Powers and Duties of Pension Retirement Boards:

"Consistent with Article XVI, Section 17 of the California Constitution, and any successor constitutional provision, and subject to the limitations set forth elsewhere in the Charter concerning anything other than pension and retirement system administration and control over system investments, each pension and retirement board of the City shall:

. . .

(f) Rules and Regulations. Have the power to adopt any rules, regulations, or forms it deems necessary to carry out its administration of a pension or retirement system or assets under its control."

Strategic Plan Impact Statement:

The adoption of these amended Board Rules is part of the Strategic Plan Goal II – Benefits Delivery. The approval of these recommendations will ensure the accurate and timely delivery of retirement benefits to Members.

This report was prepared by Ferralyn Sneed, Senior Management Analyst, Retirement Services Division.

NG:KF:FS

Attachments: 1) Proposed Board Rules
2) Proposed Resolution

ATTACHMENT 1

SOURCE DOCUMENT – BOARD MANUAL
SECTION 4.0 BENEFITS AND MEMBER ADMINISTRATION
(January 22, 2019)

4.1 BOARD RULES and 4.2 BOARD RULES - ENHANCED BENEFITS

All other Board Rules apply unless superseded by these rules or the Los Angeles Administrative Code.

DISABILITY RETIREMENT (DR)

DR 13: A Disability Retired Member who received a refund of his or her survivor contributions at retirement, who subsequently returns to work and later retires with an eligible spouse or domestic partner, must restore the refunded survivor contributions plus interest in order to leave a continuance.

DR 14: Tier 3 Disability Retired Members returning to active service who are eligible to purchase time spent on a disability retirement must purchase service for the entire duration spent on a disability retirement and restore any survivor contributions that were refunded.

FAMILY DEATH BENEFIT PLAN (FDBP)

FDBP 6: Where the FDBP Dependent Child Applicant's medical records clearly indicate the Applicant is severely impaired or disabled, as determined by the Retirement Services Division Chief, the Applicant shall be required to undergo an examination by only one physician specializing in the medical field of the claimed impairment or disability.

GENERAL MANAGER AUTHORIZATION (GMA)

GMA 2: Pursuant to Internal Revenue Code Section 415, the Board of Administration hereby delegates to the General Manager the authority to determine a different manner and priority of reduction of benefits of a Member, to enter into an agreement with any or all other plans covering such Member, and to create the administrative rules necessary to facilitate different manners for reduction of benefits. Reference Board Rule IRC 1(n) – Reduction of Benefits Priority.

INTERNAL REVENUE CODE (IRC)

IRC 5: This rule defines the "Normal Retirement Age," as the term is used in Treasury Regulation Section 1.401(a)-1(b)(2), for Tier 1 and Tier 3 Members. This rule applies for tax purposes, including for purposes of the in-service distribution rule exception set forth in IRC 401(a)(36).

For members of Tier 1, the Normal Retirement Age shall be the earliest age described in subparts (1) and (2) of Section 4.1005(a) of the Los Angeles Administrative Code, meaning the earliest of (1) age fifty-five (55) with thirty (30) or more years of City service or (2) age sixty (60) with ten (10) or more years of continuous City service.

For members of Tier 3, the Normal Retirement Age shall be the age described in Section 4.1080.5(a)(2)(i) of the Los Angeles Administrative Code, namely age sixty (60) with ten (10) or more years of service, including at least five (5) years of continuous City service.

This rule does not modify the age and service eligibility requirements or retirement factors for Tier 1 and Tier 3 Members, and does not create any vested right under California or Federal law including but not limited to the contracts clause of the California Constitution.

MEMBER CONTRIBUTION (MC)

MC 7: The ex-spouse of a Member granted a Separate Account shall be required to make an irrevocable election to either receive a separate account allowance, a refund, or a rollover of their community property share within six months of notification from LACERS that a Separate Account has been established in their name. If the ex-spouse fails to make an election within the prescribed period, their failure to elect shall be deemed an election to receive a refund of contributions.

ENHANCED BENEFITS – HEARING PROCESS (EB-HP)

EB-HP 1: Thirty (30) days prior to the Enhanced Benefit Eligible Member's scheduled hearing date, LACERS' staff will send the proposed rating recommendation to the Member and, if applicable, the Member's representative. The Member must return the recommendation letter with their signature acknowledging either their agreement or disagreement with the proposed recommendation within ten (days) of the letter date. Failure to submit a response within the prescribed period will be taken as acceptance of the proposed recommendation. Only specified items of disagreement submitted within the prescribed period will be discussed at the LACERS Board Hearing.

EB-HP 2: When an Enhanced Disability Retirement Application is brought before the Board for consideration, the Board may take the following actions:

(a) Grant a Service-Connected or Nonservice-Connected Disability Retirement as recommended;
(b) Grant a Service-Connected or Nonservice-Connected Disability Retirement, notwithstanding the staff recommendation;
(c) Request staff provide further information and bring the case back for further consideration; or
(d) Deny the Disability Application.

ENHANCED BENEFITS – OPTION TO CONVERT A SERVICE RETIREMENT (CSR) TO A DISABILITY RETIREMENT (EB-CSR) (Amended)

EB-CSR 1: Any Airport Peace Officer Former Member, who became such because of termination of his or her employment for any reason including service retirement, who believes they are eligible to receive disability retirement benefits may file his or her written disability retirement application within one (1) year from the service retirement effective date; one (1) year from the resignation or termination date; or, one (1) year from his or her last day on active payroll, whichever occurs first. An open, related and accepted workers' compensation claim may extend the filing period.

ENHANCED BENEFITS – MEMBER CONTRIBUTION (MC) (EB-MC)

EB-MC 1: The mandatory $5,700 in additional contributions paid by sworn Members in connection with the LACERS' Enhanced Benefits plan provisions under the Administrative Code are not refundable in the event the sworn Member converts to a civilian classification. The additional funds will remain a part of the Member's account as regular contributions.

ENHANCED BENEFITS – SURVIVOR BENEFITS (EB-SB)

EB-SB 4: The reconsideration period following an active death, where the service-connected claim has already been denied by the Board, shall be 90 calendar days from the Board's decision.

ATTACHMENT 2

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
PROPOSED BOARD RULES RELATED TO THE
ADMINISTRATION OF BENEFITS

PROPOSED RESOLUTION

WHEREAS, the proposed Board Rules serve to codify LACERS' administrative practices and provide necessary guidance for effective and efficient Plan administration;

WHEREAS, the Los Angeles Charter Section 1106(f) authorizes the Board of Administration to adopt rules governing the administration of benefits for the Plan; and,

NOW, THEREFORE, BE IT RESOLVED, that the Board hereby adopts the proposed Board Rules as presented.

LACERS
LOS ANGELES CITY EMPLOYEES'
RETIREMENT SYSTEM

Report to Board of Administration

From: Investment Committee
Sung Won Sohn, Chairperson
Nilza R. Serrano
Elizabeth Lee

Agenda of: **JANUARY 22, 2019**

ITEM: **X-B**

SUBJECT: **INVESTMENT MANAGER CONTRACT WITH ROBERT W. BAIRD & CO. INCORPORATED REGARDING THE MANAGEMENT OF AN ACTIVE DOMESTIC FIXED INCOME PORTFOLIO AND POSSIBLE BOARD ACTION**

Recommendation

That the Board approve a four-year contract renewal with Robert W. Baird & Co. Incorporated for management of an active domestic fixed income portfolio; and, authorize the General Manager to approve and execute the necessary documents, subject to satisfactory business and legal terms.

Discussion

On January 8, 2019, the Committee considered the attached staff report (Attachment A) recommending a four-year contract renewal with Robert W. Baird & Co. Incorporated (Baird). Baird has managed an active domestic fixed income portfolio for LACERS since 2005, and the current contract expires on February 28, 2019. The Committee discussed the organization, investment strategy, performance, and fees. Baird is in compliance with the LACERS Manager Monitoring Policy.

Strategic Plan Impact Statement
A contract renewal with Robert W. Baird & Co. Incorporated will allow the fund to maintain a diversified exposure to the domestic fixed income market, which is expected to help achieve satisfactory long-term risk adjusted investment returns (Goal IV). The discussion of the investment manager's profile, strategy, performance, and management fee structure are consistent with Goal V (uphold good governance practices which affirm transparency, accountability, and fiduciary duty).

This report was prepared by Jimmy Wang, Investment Officer I, Investment Division.

RJ:BF:JW:WL:ap

Attachments: A) Investment Committee Recommendation Report dated January 8, 2019
B) Proposed Resolution

LACERS
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

Report to Investment Committee

Agenda of: **JANUARY 8, 2019**

From: Neil M. Guglielmo, General Manager

ITEM: **V**

SUBJECT: **INVESTMENT MANAGER CONTRACT WITH ROBERT W. BAIRD & CO. INCORPORATED REGARDING THE MANAGEMENT OF AN ACTIVE DOMESTIC FIXED INCOME PORTFOLIO AND POSSIBLE COMMITTEE ACTION**

Recommendation

That the Committee recommend to the Board a four-year contract renewal with Robert W. Baird & Co. Incorporated for management of an active domestic core fixed income portfolio.

Discussion

Background

Robert W. Baird & Co. Incorporated (Baird) manages an active domestic core fixed income portfolio for LACERS benchmarked against the Bloomberg Barclays U.S. Intermediate Government/Credit Bond Index. Baird utilizes a duration-neutral, risk-controlled investment strategy, adding incremental value through security selection, yield curve positioning, sector allocation, and trading. The portfolio is managed through a team approach led by Charles B. Groeschell, Managing Director and Senior Portfolio Manager. LACERS' portfolio was valued at approximately $256 million as of November 30, 2018.

Baird was hired through a manager search process conducted in 2004/2005 and a three-year contract was authorized by the Board on January 25, 2005. The most recent contract renewal was authorized by the Board on November 15, 2016. Baird's current contract expires on February 28, 2019.

On October 23, 2018, the Board approved an active core fixed income investment manager search to evaluate the competitiveness of LACERS current stable of managers. This search is expected to launch in the second quarter of calendar year 2019.

Organization

Baird is an employee-owned company founded in 1919. The firm has 3,500 employees and is headquartered in Milwaukee, Wisconsin with 100 offices across the globe. As of October 31, 2018, Baird managed $66 billion in total assets.

Due Diligence
Baird's organizational structure, key personnel, investment philosophy, strategy, and process have not changed over the contract period.

Performance
As of November 30, 2018, Baird has outperformed the benchmark for all time periods except the 3-month time period. Baird is in compliance with the performance criteria of the Policy.

Annualized Performance as of 11/30/18 (Net-of-Fees)							
	3-Month	1-Year	3-Year	5-Year	7-Year	10-Year	Since Inception^
Baird	-0.17	-0.32	1.66	1.91	2.43	4.23	3.93
Bloomberg Barclays U.S. Intermediate Government/Credit Bond Index	-0.09	-0.34	1.14	1.46	1.67	3.06	3.41
% of Excess Return	*-0.08*	*0.02*	*0.52*	*0.45*	*0.76*	*1.17*	*0.52*

^Inception Date: 3/31/05

Calendar year performance is presented in the table below as supplemental information.

Calendar Year Performance (Net-of-Fees)										
	YTD 2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Baird	-0.45	2.62	3.40	1.05	3.57	0.00	6.08	6.53	8.37	8.88
Bloomberg Barclays U.S. Intermediate Government/Credit Bond Index	-0.45	2.14	2.08	1.07	3.13	-0.86	3.89	5.80	5.89	5.24
% of Excess Return	*0.00*	*0.48*	*1.32*	*-0.02*	*0.44*	*0.86*	*2.19*	*0.73*	*2.48*	*3.64*

Baird is in compliance with the LACERS Manager Monitoring Policy.

Fees
LACERS pays Baird an effective fee of 12.3 basis points (0.123%), which is approximately $315,000 annually based on the value of LACERS' assets as of November 30, 2018. The fee ranks in the 3rd percentile of fees charged by similar managers in the space (i.e., 97% of like-managers have higher fees).

General Fund Consultant Opinion
NEPC, LLC, LACERS General Fund Consultant, concurs with this recommendation.

Strategic Plan Impact Statement
A contract renewal with Robert W. Baird & Co. Incorporated will allow the fund to maintain a diversified exposure to the U.S. intermediate fixed income market, which is expected to help achieve satisfactory long-term risk adjusted investment returns (Goal IV). The discussion of the investment manager's profile, strategy, performance, and management fee structure are consistent with Goal V (uphold good governance practices which affirm transparency, accountability, and fiduciary duty).

This report was prepared by Jimmy Wang, Investment Officer I, Investment Division.

RJ:BF:WL:JW

Attachments: A) Consultant Recommendation – NEPC
B) Workforce Composition

NEPC, LLC

To: Los Angeles City Employees' Retirement System Investment Committee

From: NEPC, LLC

Date: January 8, 2019

Subject: Baird Advisors – Contract Extension

Recommendation

NEPC recommends Los Angeles City Employees' Retirement System (LACERS) extend the contract that is currently in place with Baird Advisors ('Baird') for a period of four years from the date of contract expiry.

Background

Baird Advisors was hired into the Core Fixed Income asset class on March 31, 2005 to provide the Plan with U.S. investment grade corporate and government intermediate duration public markets fixed income exposure. The portfolio's strategy is benchmarked against the Bloomberg Barclays Capital Intermediate Government/Credit Index.

As of October 31, 2018, Baird managed $256.2 million, or 1.5% of Plan assets in a U.S. government/credit intermediate duration fixed income separately managed account with an asset-based fee of 0.12% (12.3 basis points) annually. This fee ranks in the 3rd percentile among its peers in the eVestment U.S. Intermediate Duration Fixed Income Universe. In other words, 97% of the 188 products included in the peer universe have a higher fee than the LACERS account. The performance objective is to outperform the Bloomberg Barclays Capital Intermediate Government/Credit Index by at 0.15% - 0.40%, net of fees, annualized over a full market cycle (normally three-to-five years) and to perform above median (in the top half of the peer group). The Baird account is currently in good standing according to LACERS' manager monitoring policy.

Baird Advisors was formed as an investment group within the larger Baird organization in the year 2000 by the former portfolio management team at Firstar Investment Research and Management Company. Baird traces its origins back to 1919 when the firm was the investment arm of First Wisconsin National Bank. In 1982, Northwestern Mutual purchased 80% of Baird and in 2004, Baird became employee-owned after completing its purchase from Northwestern Mutual. Today, Baird is a privately held full service financial services firm headquartered in Milwaukee, Wisconsin. The firm is 94% employee owned and has 3,500 employees; 2,400 of which are employee shareholders. All eligible members of the Baird Advisors Portfolio Management Team have equity interest in Baird in the form of purchased shares. Assets under management at Baird Advisors is $65.7 billion as of October 31, 2018 and is comprised primarily by taxable institutional clients (75% of AUM) with the remainder being tax-exempt clients such as public funds.

The LACERS Intermediate Bond portfolio is managed by a team of 25 investment professionals covering portfolio construction and risk monitoring, credit, structured credit and municipal bonds. The team is led by seven lead/ strategic Portfolio Managers that have ultimate responsibility for the overall investment process and portfolio construction. The team believes, as an investment philosophy, that interest rates are difficult to forecast over time and therefore employ a duration neutral, risk-controlled approach to portfolio management. Duration neutrality versus the benchmark, as a concept means that the process is designed to match the duration profile (interest rate risk profile) of the benchmark. Secondarily, the process seeks to add value through security selection, sector allocation, yield curve positioning and trade execution. The size of the team allows for an emphasis on debt issuance structure and credit research in evaluating securities and sectors that may add value in their risk-controlled framework.

Duration neutrality is achieved in the portfolio construction process by incorporating a bottom-up, contribution-to-duration framework in each security and its contribution to each sector when building out the overall allocations in the portfolio. Fundamental credit analysis plays a crucial role in security selection, with limits put on non-government and subsidiary debt issues. Lower credit allocations (BBB) are limited to allocations of 0.5% to 1%. Broad issuer diversification is achieved through industry exposure limits, typically 20% at the industry level. Sector overweight biases are typically found in the finance and securitized asset sectors as they are dependent on continuous access to capital markets and often include incentives for buyers. The portfolio construction process results in a low turnover, high quality and risk-controlled portfolio.

Performance

Referring to Exhibit 1, since inception of the Baird portfolio on March 31, 2005, the strategy has outperformed the Bloomberg Barclays Capital Intermediate Government/Credit Index by 0.54%, returning 3.97%, net of fees. The portfolio ranked in the 23rd percentile in its peer universe since March 31, 2005. The information ratio was 0.57 and active risk, as measured by tracking error was 0.94%. In the one-year period ended September 30, 2018, the portfolio outperformed the index by 0.26% and ranked 49th in its peer universe. Outperformance in the trailing one-year was driven by an overweight to Investment Grade (BBB- or higher) credit as well as an overweight to BBB rated securities.

Since March 31, 2005, referring to Exhibit 2, historical relative performance has been consistent with minimal drawdowns when compared to the benchmark. A focus on security selection and credit fundamentals resulted in an experience for LACERS that is within expectations. Relative value drawdowns in the last five years, while very minimal, have been a result of credit positioning versus benchmark.

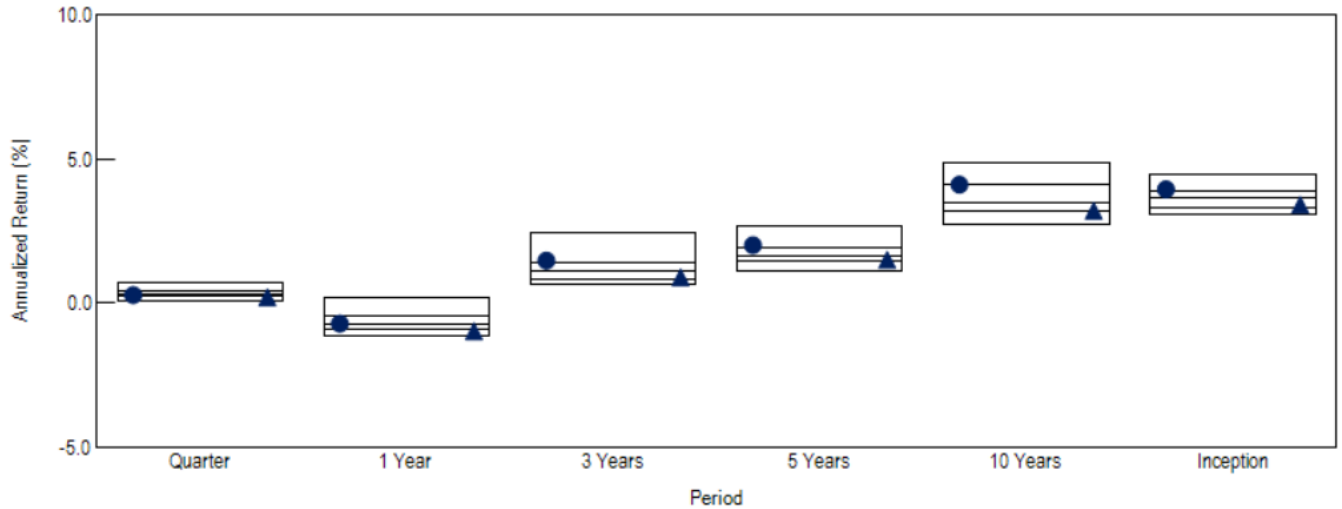
Conclusion

Baird Advisors has performed well against its benchmark since inception as well as in all trailing time periods. The firm has had a well-established, stable team in place, in addition to executing well against its stated investment objectives. With an investment process and philosophy that prioritizes fundamental credit research, Baird Advisors is well suited for managing assets in the core fixed income space. Baird has been a high-conviction manager at NEPC in the core fixed income space since 2009. NEPC recommends a contract extension for a period of four years from the period of contract expiry.

The following tables provide specific performance information, net of fees referenced above.

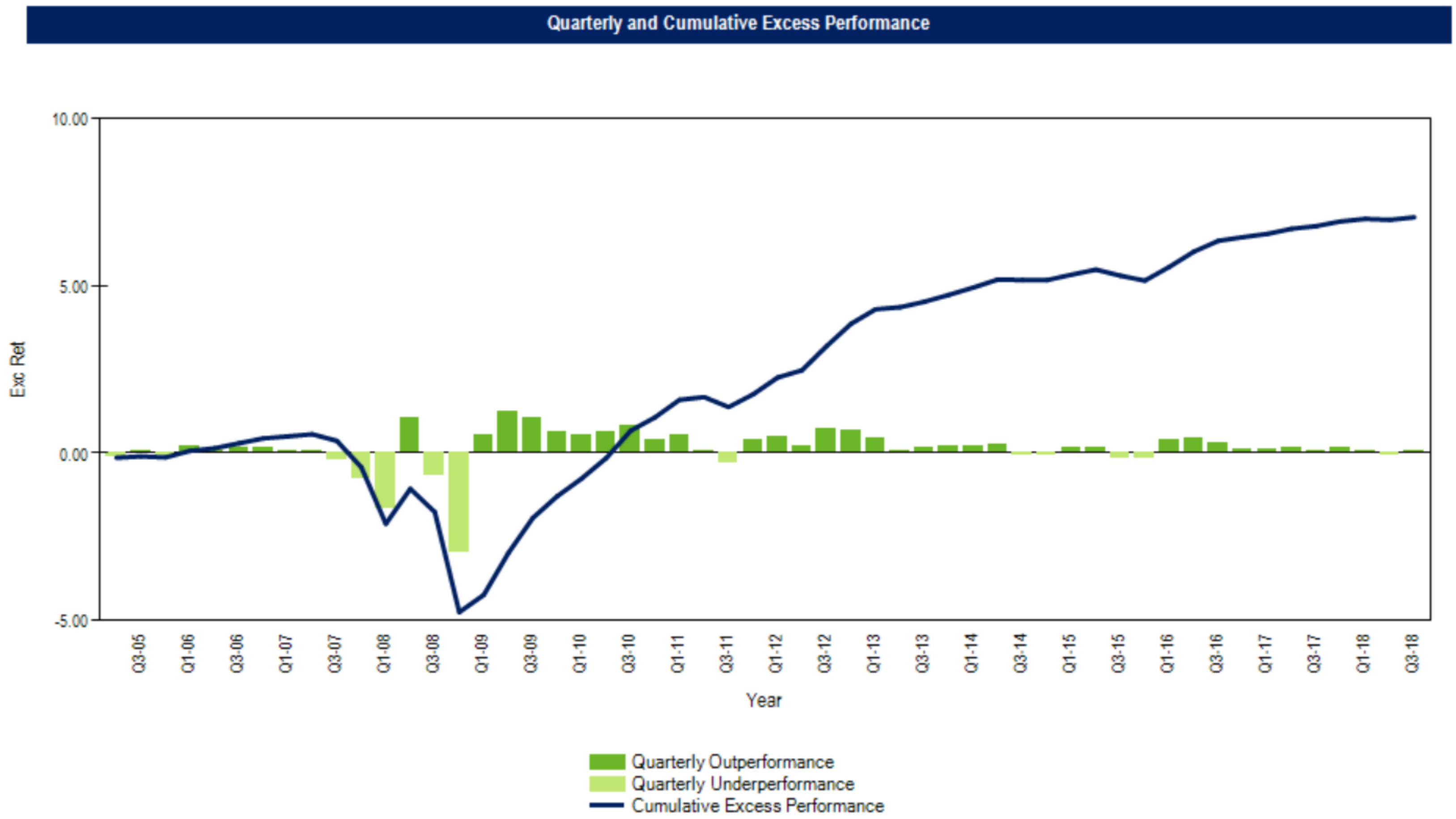
Exhibit 1

eV US Interm Duration Fixed Inc Net Return Comparison
Ending September 30, 2018



	Return (Rank)											
5th Percentile	0.70		0.18		2.46		2.66		4.90		4.50	
25th Percentile	0.42		-0.45		1.39		1.96		4.12		3.92	
Median	0.32		-0.72		1.11		1.62		3.47		3.64	
75th Percentile	0.24		-0.90		0.86		1.46		3.22		3.32	
95th Percentile	0.07		-1.14		0.66		1.10		2.71		3.08	
# of Portfolios	103		102		101		98		80		68	
● Baird Advisors	0.29	(56)	-0.70	(49)	1.49	(22)	2.03	(24)	4.13	(24)	3.97	(23)
▲ BBgBarc US Govt/Credit Int TR	0.21	(79)	-0.96	(85)	0.91	(72)	1.52	(70)	3.22	(76)	3.43	(64)

Exhibit 2



Quarterly and Cumulative Excess Performance
10.00
5.00
0.00
-5.00
Exc Ret
Q3-05
Q1-06
Q3-06
Q1-07
Q3-07
Q1-08
Q3-08
Q1-09
Q3-09
Q1-10
Q3-10
Q1-11
Q3-11
Q1-12
Q3-12
Q1-13
Q3-13
Q1-14
Q3-14
Q1-15
Q3-15
Q1-16
Q3-16
Q1-17
Q3-17
Q1-18
Q3-18
Year
Quarterly Outperformance
Quarterly Underperformance
Cumulative Excess Performance

Robert W. Baird & Co. Incorporated
777 East Wisconsin Avenue, Suite 2700
Milwaukee WI, 53202

Atachment B

Date Completed: **January 2, 2019**
(data as of December 31, 3018)

TOTAL COMPOSITION OF WORK FORCE									
Occupation	**African American Full Time**	**Hispanic Full Time**	**Asian or Pacific Islander Full Time**	**American Indian/ Alaskan Native Full Time**	**Caucasian (Non Hispanic) Full Time**	**Total Employees Full Time**	**Percent (%) Minority Full Time**	**Gender Male Full Time**	**Gender Female Full Time**
Officials & Managers	0	0	0	0	0	**0**	**0.00%**	0	0
Professionals	84	73	150	4	3,063	**3,374**	**9.22%**	2081	1355
Technicians	0	0	0	0	0	**0**	**0.00%**	0	0
Sales Workers	0	0	0	0	0	**0**	**0.00%**	0	0
Office/Clerical	0	0	0	0	0	**0**	**0.00%**	0	0
Semi-Skilled	0	0	0	0	0	**0**	**0.00%**	0	0
Unskilled	0	0	0	0	0	**0**	**0.00%**	0	0
Service Workers	0	0	0	0	0	**0**	**0.00%**	0	0
Other	0	0	0	0	0	**0**	**0.00%**	0	0
Total	**84**	**73**	**150**	**4**	**3,063**	**3,374**	**9.22%**	**2,081**	**1,355**

CONTRACT RENEWAL
ROBERT W. BAIRD & CO. INCORPORATED
ACTIVE DOMESTIC FIXED INCOME
PORTFOLIO MANAGEMENT

PROPOSED RESOLUTION

WHEREAS, LACERS' current contract with Robert W. Baird & Co. Incorporated (Baird) for active domestic fixed income portfolio management expires on February 28, 2019; and,

WHEREAS, Baird is in compliance with the LACERS Manager Monitoring Policy; and,

WHEREAS, a contract renewal with Baird will allow the fund to maintain a diversified exposure to the core fixed income markets; and,

WHEREAS, on January 22, 2019 the Board approved the Investment Committee's recommendation for a four-year contract renewal with Baird; and,

NOW, THEREFORE, BE IT RESOLVED, that the General Manager is hereby authorized to approve and execute a contract subject to satisfactory business and legal terms and consistent with the following services and terms:

Company Name:	Robert W. Baird & Co. Incorporated
Service Provided:	Active Domestic Fixed Income Portfolio Management
Effective Dates:	March 1, 2019 through February 28, 2023
Duration:	Four years
Benchmark:	Bloomberg Barclays U.S. Intermediate Government/Credit Bond Index.
Allocation as of December 31, 2018:	$259 million

January 22, 2019

LACERS
LOS ANGELES CITY EMPLOYEES'
RETIREMENT SYSTEM

Report to Board of Administration

From: Investment Committee
Sung Won Sohn, Chairperson
Nilza R. Serrano
Elizabeth Lee

Agenda of: **JANUARY 22, 2019**

ITEM: **X-C**

SUBJECT: **INVESTMENT MANAGER CONTRACT WITH LOOMIS, SAYLES & COMPANY, L.P. REGARDING THE MANAGEMENT OF AN ACTIVE CORE DOMESTIC FIXED INCOME PORTFOLIO AND POSSIBLE BOARD ACTION**

Recommendation

That the Board approve a four-year contract renewal with Loomis, Sayles & Company, L.P. for management of an active core domestic fixed income portfolio; and, authorize the General Manager to approve and execute the necessary documents, subject to satisfactory business and legal terms.

Discussion

On January 8, 2019, the Committee considered the attached staff report (Attachment A) recommending a four-year contract renewal with Loomis, Sayles & Company, L.P. (Loomis Sayles). Loomis Sayles has managed an active core domestic fixed income portfolio for LACERS since 1980, and the current contract expires on July 31, 2019. The Committee discussed the organization, investment strategy, performance, and fees. Loomis Sayles is in compliance with the LACERS Manager Monitoring Policy.

Strategic Plan Impact Statement
A contract renewal with Loomis, Sayles & Company, L.P. will allow the fund to maintain a diversified exposure to the core domestic fixed income market, which is expected to help achieve satisfactory long-term risk adjusted investment returns (Goal IV). The discussion of the investment manager's profile, strategy, performance, and management fee structure are consistent with Goal V (uphold good governance practices which affirm transparency, accountability, and fiduciary duty).

This report was prepared by Jimmy Wang, Investment Officer I, Investment Division.

RJ:BF:JW:WL:ap

Attachments: A) Investment Committee Recommendation Report dated January 8, 2019
B) Proposed Resolution

LACERS
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

Report to Investment Committee

Agenda of: **JANUARY 8, 2019**

From: Neil M. Guglielmo, General Manager

ITEM: **IV**

SUBJECT: **INVESTMENT MANAGER CONTRACT WITH LOOMIS, SAYLES & COMPANY, L.P. REGARDING THE MANAGEMENT OF AN ACTIVE CORE DOMESTIC FIXED INCOME PORTFOLIO AND POSSIBLE COMMITTEE ACTION**

Recommendation

That the Committee recommend to the Board a four-year contract renewal with Loomis, Sayles & Company, L.P. for management of an active core domestic fixed income portfolio.

Discussion

Background

Loomis, Sayles & Company, L.P. (Loomis Sayles) manages an active core domestic fixed income portfolio for LACERS benchmarked against the Bloomberg Barclays U.S. Aggregate Bond Index. Loomis Sayles' investment approach seeks to add value through sector rotation and security selection based on macroeconomic analysis and fundamental research. The lead portfolio manager, John Hyll, has been with the firm for 31 years and has over 34 years of industry experience. LACERS' portfolio was valued at approximately $729 million as of November 30, 2018.

Loomis Sayles has managed a fixed income mandate for LACERS since July 1980. The most recent contract renewal was authorized by the Board on March 28, 2017, and the current contract expires on July 31, 2019.

On October 23, 2018, the Board approved an active core fixed income investment manager search to evaluate the competitiveness of LACERS current stable of managers. This search is expected to launch in the second quarter of calendar year 2019.

Organization

Loomis Sayles, a wholly owned subsidiary of Natixis Global Asset Management, L.P., is headquartered in Boston and has 641 employees. As of September 30, 2018, Loomis Sayles managed $267 billion in total assets, with $203 billion in the core fixed income strategy.

Due Diligence

Loomis Sayles' organizational structure, key personnel, investment philosophy, strategy, and process have not changed over the contract period.

Performance
On an annualized basis, as of November 30, 2018, Loomis Sayles has outperformed its benchmark, net-of-fees, over all time periods as presented in the table below.

Annualized Performance as of 11/30/18 (Net-of-Fees)							
	3-Month	1-Year	3-Year	5-Year	7-Year	10-Year	Since Inception[1,2]
Loomis Sayles	-0.91	-1.11	2.44	2.87	3.30	6.30	8.99
BB BC U.S. Aggregate Bond Index[3]	-0.84	-1.34	1.33	2.03	2.21	4.10	7.51
% of Excess Return	*-0.07*	*0.23*	*1.11*	*0.84*	*1.09*	*2.20*	*1.48*

[1] Inception date: 7/31/80
[2] Indicates gross returns
[3] The benchmark has changed several times since inception due to mandate changes: 7/31/1980 – 8/31/1993: Lehman Brothers Government Credit Bond Index; 8/31/1993 – 6/30/2000: Lehman Brothers Long Term Government Credit Bond Index; 6/30/2000 – 6/30/2013: Barclays U.S. Universal Bond Index; 6/30/2013 – Present: Bloomberg Barclays U.S. Aggregate Bond Index.

Calendar year performance is presented in the table below as supplemental information.

Calendar Year Performance (Net-of-Fees)										
	YTD 2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Loomis Sayles	-1.70	4.54	5.58	-0.53	6.89	-1.08	8.28	6.63	8.69	19.67
BB BC U.S. Aggregate Bond Index[4]	-1.79	3.54	2.65	0.55	5.97	-1.87	5.53	7.40	7.16	8.60
% of Excess Return	*0.09*	*1.00*	*2.93*	*-1.08*	*0.92*	*0.79*	*2.75*	*-0.77*	*1.53*	*11.07*

[4] The benchmark has changed several times since inception due to mandate changes: 7/31/1980 – 8/31/1993: Lehman Brothers Government Credit Bond Index; 8/31/1993 – 6/30/2000: Lehman Brothers Long Term Government Credit Bond Index; 6/30/2000 – 6/30/2013: Barclays U.S. Universal Bond Index; 6/30/2013 – Present: Bloomberg Barclays U.S. Aggregate Bond Index.

Loomis Sayles is in compliance with the LACERS Manager Monitoring Policy.

Fees
LACERS pays Loomis Sayles an effective fee of 12.7 basis points (0.127%), which is approximately $925,800 annually based on the value of LACERS' assets as of November 30, 2018. The fee ranks in the 8th percentile of fees charged by similar managers in the space (i.e., 92% of like-managers have higher fees).

General Fund Consultant Opinion
NEPC, LLC, LACERS' General Fund Consultant, concurs with this recommendation.

Strategic Plan Impact Statement
A contract renewal with Loomis, Sayles & Company, L.P. will allow the fund to maintain a diversified exposure to the U.S. core fixed income market, which is expected to help achieve satisfactory long-term risk adjusted investment returns (Goal IV). The discussion of the investment manager's profile, strategy, performance, and management fee structure are consistent with Goal V (uphold good governance practices which affirm transparency, accountability, and fiduciary duty).

This report was prepared by Jimmy Wang, Investment Officer I, Investment Division.

RJ:BF:WL:JW

Attachments: A) Consultant Recommendation – NEPC
B) Workforce Composition

NEPC, LLC

To: Los Angeles City Employees' Retirement System Investment Committee

From: NEPC, LLC

Date: January 8, 2019

Subject: Loomis Sayles & Company, L.P. – Contract Extension

Recommendation

NEPC recommends Los Angeles City Employees' Retirement System (LACERS) extend the contract that is currently in place with Loomis Sayles & Company, L.P. ('Loomis') for a period of four years from the date of contract expiry.

Background

Loomis was hired for the Core Fixed Income asset class on July 31, 1980 to provide the Plan with U.S. investment grade public markets fixed income exposure. Since 1980 the mandate has changed several times including a combination of government and corporate bonds and stand-alone government and corporate mandates. The portfolio's strategy is benchmarked currently against the Bloomberg Barclays Capital U.S. Aggregate Fixed Income Index.

As of October 31, 2018, Loomis managed $725.3 million, or 4.3% of Plan assets in a core fixed income separately managed account with an asset-based fee of 0.13% (12.7 basis points) annually. This fee ranks in the 8th percentile among its peers in the eVestment U.S. Core Fixed Income Universe. In other words, 92% of the 232 products included in the peer universe have a higher fee than the LACERS account. The performance objective is to outperform the Bloomberg Barclays Capital U.S. Aggregate Fixed Income Index by 0.25%, net of fees, annualized over a full market cycle (normally three-to-five years). The Loomis account is currently in good standing according to LACERS' manager monitoring policy.

Loomis traces its origins back to January 1926, when Robert H. Loomis and Ralph T. Sayles formed a partnership and established Loomis Sayles as an investment management company in Boston, Massachusetts. Since 2008, the firm is majority owned by Natixis Investment Managers, a subsidiary of a firm formed by two shareholders Caisse Nationale des Caisses d'Epargne ("CNCE") and Banque F'd'rale des Banques Populaires ("BFBP") who together form an entity named Groupe BPCE; a large banking group based in France. Groupe BPCE is the single voice of governance and strategic direction for Natixis. Loomis manages $267.3 billion across active equities (24% of firm assets) and fixed income (76% of firm assets). A majority (45%) of firm assets come from its sub-advisory business and public funds make up 15% of total AUM. The firm has 641 employees, 75% of which are investment professionals within research and/or trading functions.

On November 15, 2018, Loomis announced that they will merge with McDonnell Investment Management, LLC ('McDonnell') in early 2019. McDonnell specializes in municipal and taxable bond strategies, managing assets of around $11.7 billion with 53 employees. The merger will give McDonnell clients access to Loomis' expansive operational and research capabilities while expanding Loomis' capabilities in the municipal bond space. Both Loomis and McDonnell are affiliates of parent company Natixis Investment Managers although Loomis will take over ownership of McDonnell. McDonnell's municipal portfolio management team will remain together and will continue to operate out of their Oakbrook Terrace office in Illinois. The core/taxable fixed income team will be integrated to the Loomis Relative Return team. NEPC clients do not have any current exposure to McDonnell products, and this transition will provide Loomis with additional resources. The merger is seen as beneficial to both parties.

The LACERS core bond portfolio is managed within the Government/Credit team, a segment of the Relative Return platform of strategies and is overseen by two portfolio managers; John Hyll and Neil Burke. Messrs. Hyll and Burke have been with Loomis for 31 and 21 years respectively. Both are responsible for government and credit, long duration credit, long duration corporate bonds and customized liability driven investment solutions in a platform that manages $14.3 billion. The portfolio management team and investment process is supported by sector specialist researchers across all major sectors of the fixed income universe defined by Loomis as: US Yield Curve, Investment Grade/ Global Credit, Mortgage & Securitized Finance, US Government, High Yield/ Bank Loans, Emerging Markets, Convertibles, Global Asset Allocation and Developed Non-US Markets. The core fixed income team, while having the ability to utilize resources from the sector research specialists as a whole, is most engaged with the Credit Research team. This team has 57 employees made up of one Director, 33 Senior Analysts, seven Analysts, eight Research Associates, and eight Research Assistants.

The strategy is run with a benchmark aware focus and broad diversification is key to the Loomis investment philosophy that prioritizes a belief in fundamental security analysis in identifying value. Investment flexibility is restrained to the investment grade portion of the US fixed income markets. Sector selection is developed in concert with individual security selection and fundamental industry analysis. The investment team seeks to take advantage of those sectors that appear to be broadly undervalued given the potential for recovery. Sector teams are responsible for forecasting overall return prospects and outlooks for their particular market sector and recommending specific credits in their segments of the market. Portfolio managers use these forecasts to generate a portfolio structure that overweights expected higher performing sectors and underweights expected underperforming sectors.

Performance

Referring to Exhibit 1, over the past 15 years, Loomis has outperformed the Bloomberg Barclays Capital U.S. Aggregate Custom Index by 1.21%, returning 4.99%, net of fees. The portfolio ranked in the 5th percentile in its peer universe since October 1, 2003 (note: 15 year trailing return used since net-of-fee return data does not go back to inception date in 1980). The information ratio was 0.39 and active risk, as measured by tracking error was 3.10%. In the one-year period ended September 30, 2018, the portfolio outperformed the index by 0.39% and ranked 30th in its peer universe. Outperformance in the trailing one-year was driven by yield curve positioning, that is, the portfolio in aggregate was able to buy securities with higher yield and less interest rate risk than the benchmark.

In the trailing 15 years, referring to Exhibit 2, historical relative performance has been consistent with minimal drawdowns when compared to the benchmark in "normal markets". The third quarter in 2008 saw the largest relative drawdown versus the benchmark at approximately 8%. Extremely stressed markets, particularly in credit and the Financials sector, experienced drawdowns of 10% in A-rated credits.

Conclusion

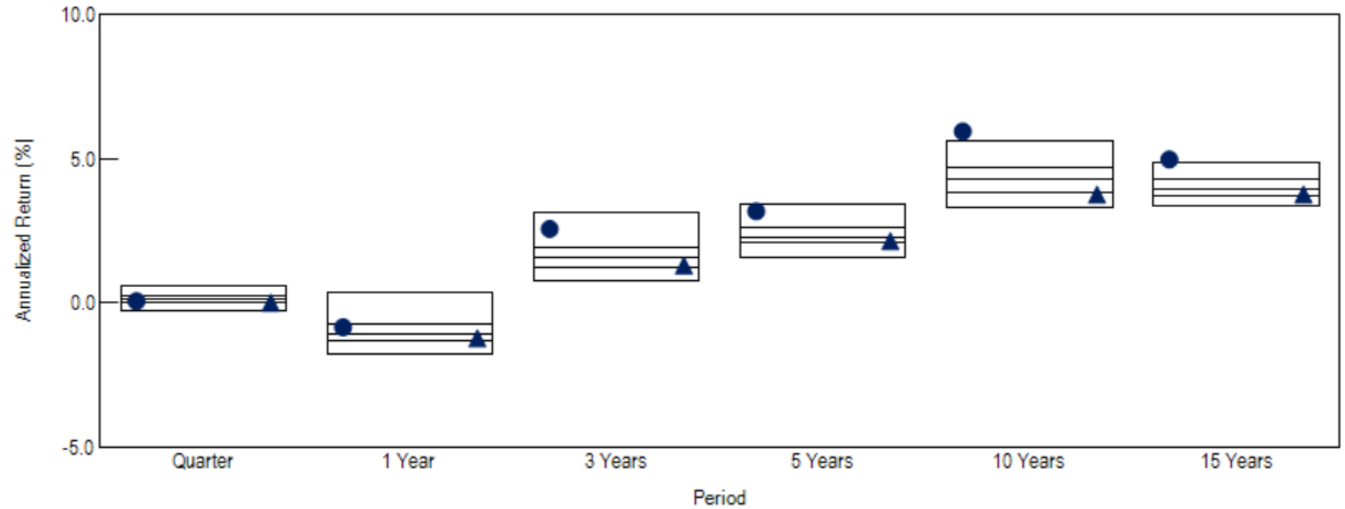
Loomis has performed well against its benchmark since inception as well as in all trailing time periods. The firm has had a well-established, stable team in place, in addition to executing well against its stated investment objectives. The investment process and philosophy paired with a large team of resources suggest an ability to execute going forward. NEPC does have confidence that this investment strategy can continue to meet its objectives. NEPC recommends a contract extension for a period of four years from the period of contract expiry.

The following tables provide specific performance information, net of fees referenced above.

ATTACHMENT A

Exhibit 1

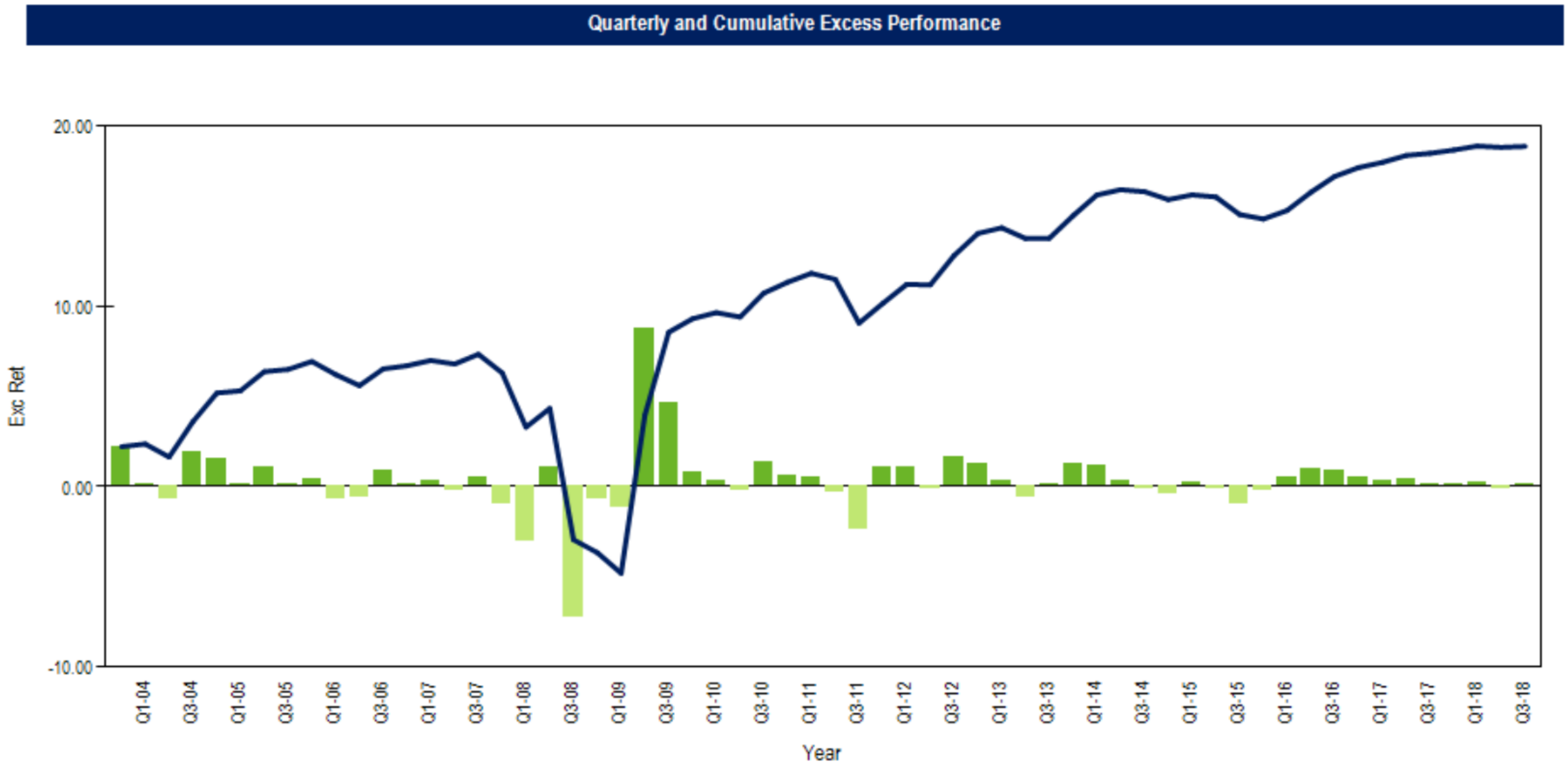
eV US Core Fixed Inc Net Return Comparison
Ending September 30, 2018



	Quarter		1 Year		3 Years		5 Years		10 Years		15 Years	
	Return (Rank)											
5th Percentile	0.60		0.38		3.14		3.45		5.62		4.91	
25th Percentile	0.26		-0.75		1.91		2.62		4.70		4.29	
Median	0.14		-1.06		1.57		2.31		4.29		3.98	
75th Percentile	0.03		-1.32		1.27		2.08		3.84		3.73	
95th Percentile	-0.28		-1.75		0.77		1.60		3.32		3.36	
# of Portfolios	144		141		136		134		116		92	
● **Loomis Sayles**	0.07	(70)	-0.83	(30)	2.58	(9)	3.19	(9)	5.97	(4)	4.99	(5)
▲ **BC US Agg LACERS custom**	0.02	(77)	-1.22	(67)	1.31	(69)	2.16	(67)	3.77	(80)	3.78	(73)

ATTACHMENT A

Exhibit 2



ATTACHMENT B

Loomis, Sayles & Company, LP
ETHNIC COMPOSITION OF ALL OFFICES OF LOOMIS, SAYLES & COMPANY, LP
As of September 30, 2018

		MALE EMPLOYEES							FEMALE EMPLOYEES									
Occupation	Total Employees	Total Males	Black	Hispanic	Asian	Pacific Islander	Native American	Two or More Races	Total Females	Black	Hispanic	Asian	Pacific Islander	Native American	Two or More Races	Total Minority	% Minority	% Female
Officers	400	262	4	5	17	0	0	0	138	0	1	17	0	0	2	46	11.50%	34.50%
Associates	241	125	9	4	15	0	0	3	116	6	9	16	1	0	3	66	27.39%	48.13%
Total	641	387	13	9	32	0	0	3	254	6	10	33	1	0	5	112	17.47%	39.63%

CONTRACT RENEWAL
LOOMIS, SAYLES & COMPANY, L.P.
ACTIVE CORE DOMESTIC FIXED INCOME
PORTFOLIO MANAGEMENT

PROPOSED RESOLUTION

WHEREAS, LACERS' current contract with Loomis, Sayles & Company, L.P. (Loomis Sayles) for active core domestic fixed income portfolio management expires on July 31, 2019; and,

WHEREAS, Loomis Sayles is in compliance with the LACERS Manager Monitoring Policy; and,

WHEREAS, a contract renewal with Loomis Sayles will allow LACERS to maintain a diversified exposure to core fixed income; and,

WHEREAS, on January 22, 2019, the Board approved the Investment Committee's recommendation for a four-year contract renewal with Loomis Sayles; and,

NOW, THEREFORE, BE IT RESOLVED, that the General Manager is hereby authorized to approve and execute a contract subject to satisfactory business and legal terms and consistent with the following services and terms:

Company Name:	Loomis, Sayles & Company, L.P.
Service Provided:	Active Core Domestic Fixed Income Portfolio Management
Effective Dates:	August 1, 2019 through July 31, 2023
Duration:	Four years
Benchmark:	Bloomberg Barclays U.S. Aggregate Bond Index.
Allocation as of December 31, 2018:	$741 million

January 22, 2019

ESG/IMPACT INVESTING OVERVIEW

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

January 22, 2018

BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO

CONTENTS

WHAT IS IMPACT INVESTING?

INTRODUCTION

- **Impact Investing is a term used to encompass investing approaches that seek to achieve both a financial return and a societal contribution**

- **NEPC’s Impact Investing Committee is responsible for analyzing trends in this space, researching impact-focused managers and working with clients to develop strategies that meet their needs**

- **This presentation provides an overview of the ESG/Impact Investing landscape, industry trends and implementation of an ESG program**

SUMMARIZING IMPACT INVESTING OPTIONS

	Negative Screening	ESG Integration	Thematic	Corporate Active Engagement
Strategy Focus	Screening out certain securities for non-financial reasons	ESG factors built-in as part of the investment process	Pro-actively seeking opportunities in targeted areas (e.g. Renewable Energy)	Actively engage in corporate voting process to push key agenda
Investment Universe	Varied across asset classes	Sizable and includes mainstream managers	Growing in size, but most funds are smaller and newer	Small but growing
Performance	May lag benchmarks due to restricted universe	Performance studies show neutral to positive impact	Varied and will have sizable tracking error due to sector focus	Values-oriented motivations, performance impacts tangential
Level of Impact	Low	Low/Medium	High	High

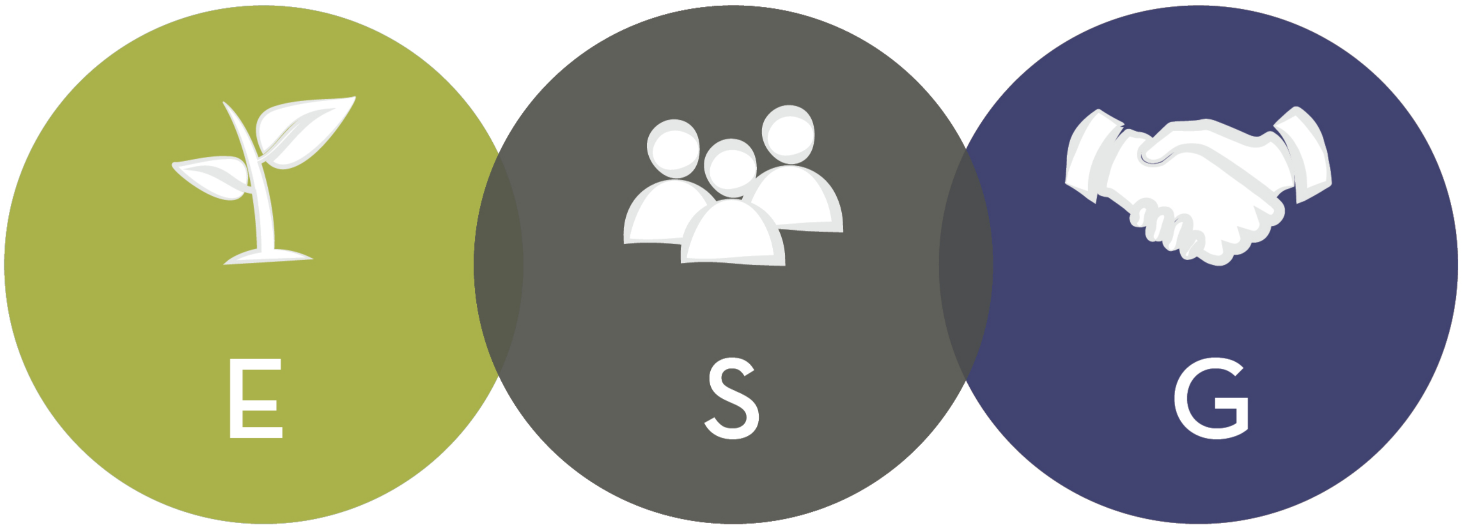
Note: Thematic investments may include ESG integration in the investment process

VARIOUS OPTIONS AVAILABLE TO PURSUE

- **Screening a specified list of companies across entire investment portfolio**
- **Allocating to sustainable investments, including those with a focus on clean energy**
  - This can be achieved through investment in green bonds, private equity funds and other specialized funds
- **Considering investments in strategies with an ESG focus**
  - Broader approach that promotes environmental, social and governance best practices
  - May reduce exposure to climate change risk and provide exposure to best in class ideas from an ESG perspective
- **Company engagement on key issues**
  - Requires significant resources and a well defined mission
  - Efforts may be combined with other organizations to increase bargaining power
  - Active proxy voting (requires investment in low ESG rated companies)
- **Public Policy work**
  - Time intensive, but can create awareness
- **Allocating a percentage of investment proceeds to green projects within the organization**
  - Examples include solar/wind power for buildings, LEED certification, providing grants for carbon emission reduction research, etc.

WHAT'S BEHIND THE E, S, AND G?

CORE FOCUS AREAS IN ESG INVESTING



Environmental

Pollution
Carbon emissions and climate change
Resource utilization
Sustainability

Social

Employees
Customers
Suppliers
Community
Human rights

Governance

Executive compensation
Management structure
Board accountability
Shareholder treatment

ESG FACTORS CAN HAVE MATERIAL IMPACTS

EXAMPLES OF THE MATERIALITY OF ESG FACTORS

ENVIRONMENTAL	Reliance on diminishing raw materials sources	Can create cost volatility should supply shortages occur
SOCIAL	Poor treatment of workers	Can create issues such as labor strikes and regulatory scrutiny
GOVERNANCE	Executive compensation	Compensation that fosters alignment between management and share- holders can improve performance

THEMATIC SPOTLIGHT: UNIVERSE ORGANIZED BY ASSET CLASS AND UNDERLYING STRATEGIES

Real Assets	Private Equity	Private Credit
Low Income Housing	Resource Efficiency	Consumer Lending
Sustainable Real Estate	Food, Health & Well Being	Small Business Lending
Clean Infrastructure	Education	Environmental Assets
Sustainable Timber & Ecosystem Services	Health IT & Services	
Sustainable Agriculture & Water	Financial Services	

INDUSTRY TRENDS AND CHALLENGES

TRENDS IN REGULATORY LANDSCAPE: GOVERNMENT, NON-GOVERNMENT AGENCIES, INDUSTRY ASSOCIATIONS

Guideline Framework

Asset (Pension) Owners

US:
DOL bulletin (ERISA Plans) seeks to narrow the instances where ESG issues may be considered by a plan fiduciary in making an investment decision. It also seeks to limit shareholder engagement activities when there is significant expense incurred by a plan fiduciary.

Europe:
Pension plans to disclose ESG considerations and map out management process for emerging ESG issues.

Canada:
Pension funds to disclose via its Investment Policy Statement the consideration of ESG issues in the plans investment approach.

Investment Firms

Also referred to as 'Stewardship Codes' governs interaction between corporates and investment firms.

PRI signatory and responsibilities associated

Set of voluntary, comply-or-explain principles

Ramp up of interest in formalizing sustainable development goals (SGD) in investment mandates

Increasing number of financial institutions are forming their own ESG and sustainability research departments supported by regional sustainable investment networks.

Corporate Disclosures

Sustainable Stock Exchanges (SSE) organized by the United Nations and the PRI – a multi-stakeholder initiative to promote incorporating ESG disclosures; 26 countries currently exploring it

Nasdaq, one of the early member to sign up with SSE.

SSE developed "Model Guidance for Companies on reporting on ESG information"

Sustainability Accounting Standards Board (SASB) developed materiality map - decision-useful information to investors in mandatory filings.

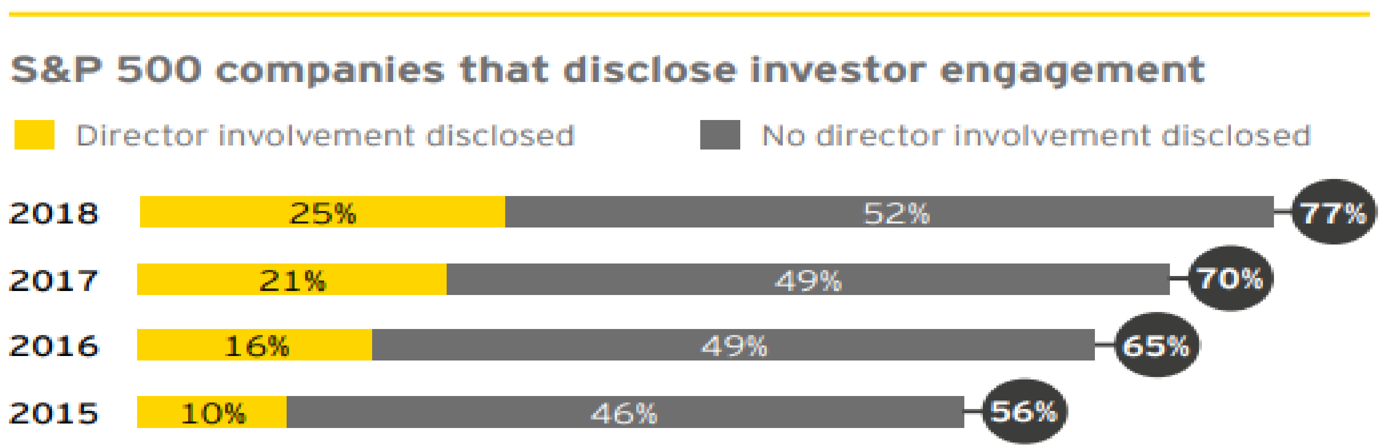
These, however are guidelines and not mandatory requirements.

Source: PRI MSCI Global Guide to Responsible Investment Regulation

TRENDS IN ENGAGEMENT 2018

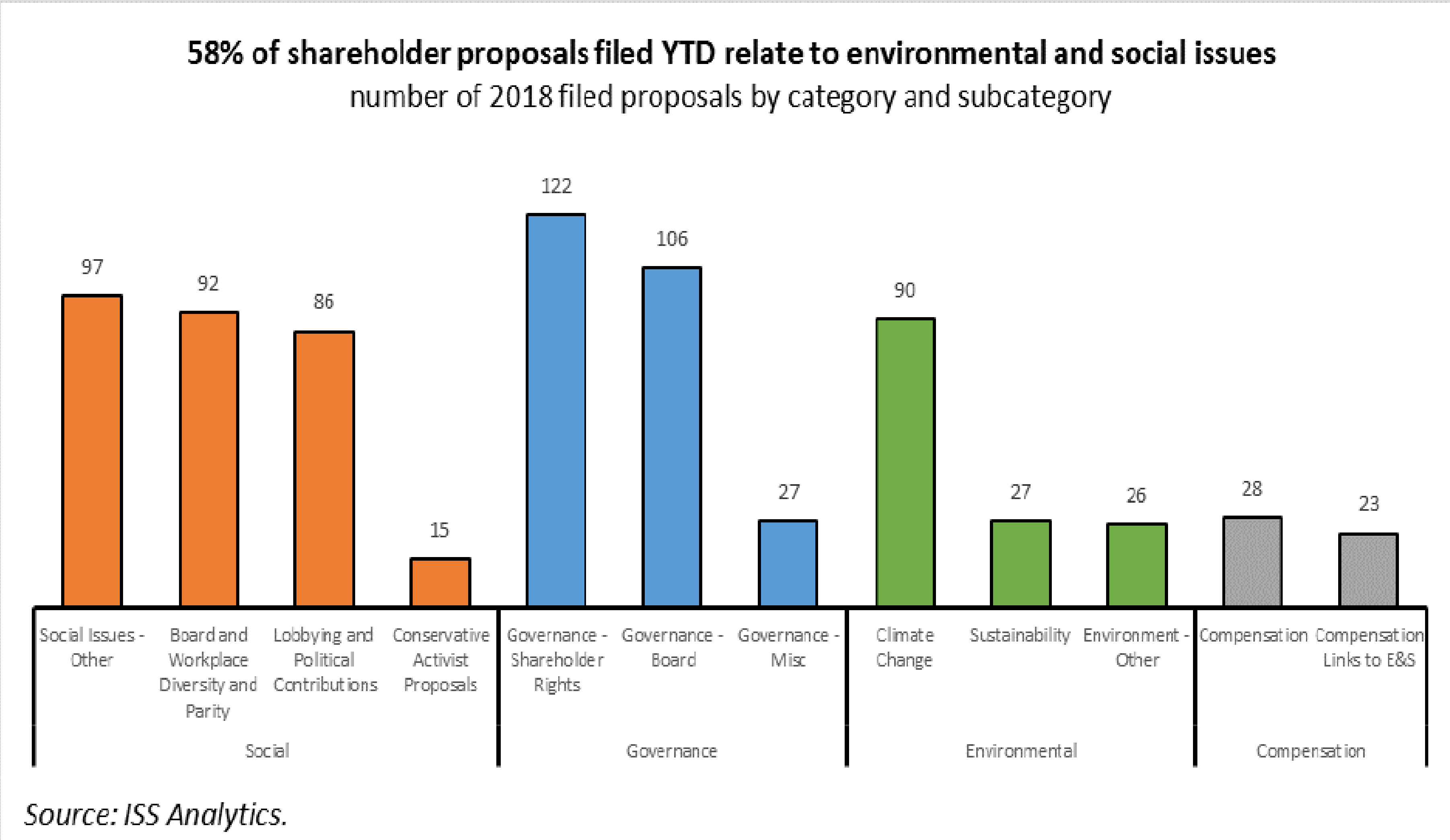
- **A larger number of shareholder proposals in E&S reached key support thresholds** *(at 30% boards take note, at 50% support and no action taken many investors vote against the incumbent)*
  - Majority support doubled in 106 Russell 3000 companies where shareholder proposals came to a vote
  - 6% passing the 50% mark, up from 3% or less over the past decade
  - 19% secured at least 40% support, up from 12% last year
  - 41% attained at least 30% support, up from 29% last year

- **Investor engagement continues to grow**
  - 77% of S&P 500 companies have disclosed engaging with investors up from 56% in 2015
  - Director involvement is increasing; up to 25% from 10% in 2015



Source: Ernst & Young

TRENDS IN ENGAGEMENT 2018



- Majority of engagement is centered on governance and ability to call a special meeting

PRI MEMBERSHIP

- **Principles of Responsible Investing (PRI) began in 2006 as a network of investors working together to integrate the 'six principles' into common practice in an effort to create a more sustainable financial system**

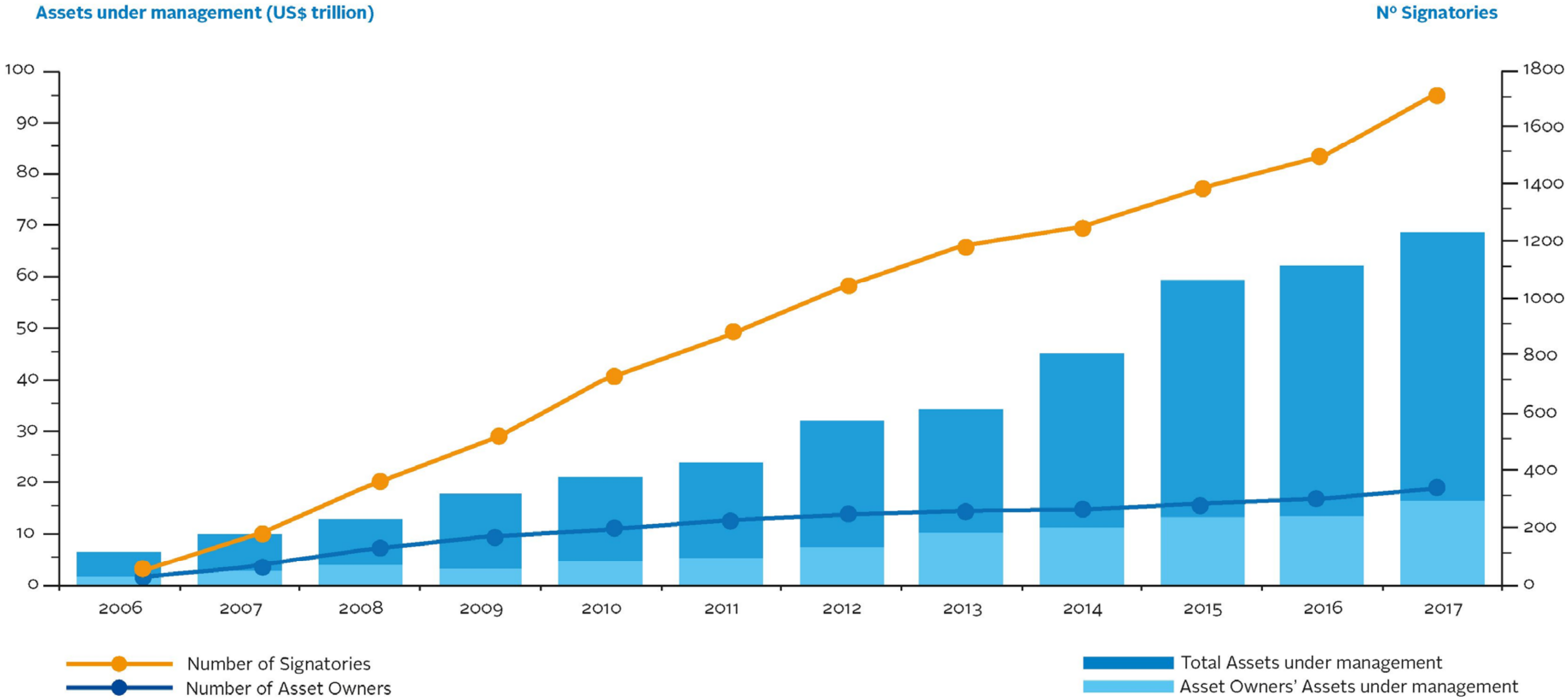
Signatory Directory		
Asset Owners	369	(USA: 37)
Investment Managers	1,314	(USA: 274)
Service Providers	243	(USA: 48)
Total	1,926	

Source: PRI website

- **The 'six principles' that signatories pledge to implement:**
  1. We will **incorporate** ESG issues into investment analysis and decision-making processes
  2. We will **be active** owners and incorporate ESG issues into our ownership policies and practices
  3. We will **seek appropriate disclosure** on ESG issues by the entities in which we invest
  4. We will **promote** acceptance and implementation of the Principles within the investment industry
  5. We will **work together** to enhance our effectiveness in implementing the Principles
  6. We will each **report** on our activities and progress towards implementing the Principles

- **Approximately 100 of NEPC's preferred managers are PRI signatories**
  – Across both traditional and alternative asset classes
  – NEPC has encouraged the investment management community to consider the materiality of ESG factors to their respective investment processes

THE PRI HAS GROWN CONSISTENTLY



- **The number of PRI signatories has increased from ~150 to ~1,700 in the last 10 years**
  - European signatories outweigh other areas, however the US has experienced sizable gains of late
- **Assets under management increased from about $US 6 trillion in 2006 to $US 65 trillion in 2017**

INFORMATION OVERLOAD…AND DEARTH

- **Increasing number of ESG data providers, along with consolidation**
  - Over 30 providers in the market today
  - Top providers continue to be MSCI, Bloomberg and Sustainalytics
  - Differences in coverage, focus areas and ratings

- **Non-standard, and non-compulsory disclosure from public companies**
  - Improvements led by industry participants and regulatory bodies
  - For example, the Sustainability Accounting Standards Board (SASB) maintains standards that help public corporations disclose “material, decision-useful information to investors in mandatory filings”

- **No one measure exists to assess commitment to ESG**
  - Growth in UN PRI signatories and other commitments
  - Lack in standardization of expectations

- **Increased recognition of the importance of materiality in ESG factors**

ESG IMPLEMENTATION

NEPC, LLC

ESG PROGRAM CONSIDERATIONS

- **Defining beliefs**
  - Agreement on investment beliefs as it relates to ESG
    - Subjective analysis and differences in opinion
  - Articulation of convictions and objectives of ESG program
  - Does the program conflict with fiduciary duty
    - Direct and measurable economic benefit to the system

- **Procedure and action**
  - Use of ESG as a veto or as a piece to the puzzle
  - Governance level to support engagement level
    - Additional costs and resources
  - Investment strategies
    - Entire fund level
    - Designated asset pool
  - Engagement strategies
    - Proxy voting
    - Manager engagement
    - External engagement

- **Review of program**
  - Evaluation of performance and costs
  - PRI signatory requires annual reporting
  - Continually re-assess program success versus changing organizational goals

SAMPLE QUESTIONS TO ANSWER IN DEVELOPING A PROGRAM

- **Defining the goals of the program**
  - For example: ABC Fund is looking to allocate more assets to managers that integrate ESG considerations in their investment process
  - For example: ABC Fund is looking to divest of all fossil fuel exposure

- **Defining the implementation timeline for the program**
  - For example: ABC Fund will allocate 10% of assets to ESG oriented managers by the end of 2019
  - For example: ABC Fund will divest of all fossil fuel exposure by the end of 2020

- **Defining measurement criteria and success of the program**
  - For Example: An annual ESG review will analyze the number of managers that are UN PRI signatories (i.e. ESG oriented)
  - For Example: An annual review of holdings will confirm the divestment of fossil fuel holdings

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- **The answers to these questions may influence the approach to manager selection and performance**
  - Impact investing implementation options are more robust in some areas (public and private equity) and less robust in others (hedge funds)

DEFINING YOUR GOALS

- **Organization mission or strategic initiatives may lead to clear impact investment goals**

- **Other investors need guidance to determine areas of focus. Discussion and consensus among key stakeholders is critical. The UN Sustainable Development Goals can be a good resource to review:**

Source: United Nations Sustainable Development Goals

RELATIVE ESG INTEGRATION BY INVESTMENT TYPE

STRATEGY TYPE	LEVEL OF ESG INTEGRATION	NOTES
Public Equity	High	Highest level of adoption; European market generally ahead of US
Fixed Income	Moderate	ESG ratings more applicable for corporate debt; sovereign debt and structured credit generally less compatible; growing adoption
Private Equity	Moderate	Funds are often smaller in size, have shorter track records and are newer entities; ESG issues can present an opportunity to unlock value
Real Estate	Moderate	Value-add and opportunistic strategies are often more focused on ESG given their emphasis on property repositioning
Real Assets	Moderate	Sustainable real assets present a wide range of options from renewables to agriculture
Hedge Funds	Low	Limited but growing adoption of ESG amongst hedge funds; Will be strategy dependent

Constructing an ESG Oriented Portfolio

- The universe of ESG oriented strategies vary by asset class
- Should be reflective of portfolio goals and objectives
- Understand how ESG adds value within the strategy
- Construct the most efficient portfolio
- Understand who is developing the ESG ratings and evaluate the merits of approaches and impacts on risk/return
- ESG is one piece of the puzzle

NEPC IMPACT INVESTING BLUEPRINT

- **Determine governance**
  - Independent structure
  - Integration with Committees
  - Aggregated reporting to Board
- **Establish common goals and language**
  - Financial return expectations
  - Impact expectations
- **Identify success metrics**
- **Source and vet opportunities**
- **Evaluate investments**
  - Investment goals
  - Investment execution
  - Impact goals
- **Observe, learn and adapt**

NEPC PUBLIC FUND CLIENT HIGHLIGHTS

- **Divestment**
  - Tobacco
  - Firearms and ammunition
  - Prison ownership
  - Carbon emissions

- **ESG Investment**
  - Incorporate review of investment manager ESG policies when conducting searches
  - Creating an index fund that is consistent with Plan's EGS policy

- **Direct Investment**
  - Actively seeking renewable energy opportunities

- **Engagement**
  - Proxy voting
  - Shareholder resolutions

- **Reporting/Monitoring**
  - Periodic Board updates on climate change and other ESG issues
  - Annual PRI, proxy voting and ESG reporting
  - Hired ESG data vendor
  - Hired ESG Analyst

LACERS INVESTMENT MANAGERS

Investment Manager	UNPRI Signatory Since	Market Value Invested (10/31/2018)	Percent of Total Fund
AEGON Asset Management	1/24/2011	381,035,562	2.3
AJO	10/12/2016	176,330,778	1.0
AQR Capital Management	2/11/2014	338,736,389	2.0
Baird Advisors	5/24/2011	254,241,409	1.5
Barrow Hanley	3/30/2016	493,801,457	2.9
CenterSquare	8/6/2018	122,459,440	0.7
CoreCommodity Mgt	3/12/2018	168,195,535	1.0
DFA	8/8/2012	602,532,130	3.6
Lazard Asset Management LLC	12/11/2014	547,956,537	3.3
Loomis Sayles	5/22/2015	725,276,465	4.3
MFS	2/1/2010	546,808,637	3.2
Neuberger Berman	6/29/2012	719,414,748	4.3
Oberweis Asset Management	11/16/2018	156,748,059	0.9
PanAgora Asset Management	12/7/2011	114,625,416	0.7
Principal Global Investors	12/8/2010	146,106,296	0.9
Prudential	2/10/2015	347,466,904	2.1
QMA	12/23/2015	400,777,141	2.4
SSGA	5/3/2012	1,025,853,906	6.1
Total*		**7,268,366,809**	**43.1**

*Amount does not include any real estate or private equity firms that may be a PRI signatory.

- **As of December 2018:**
  - 18 public market managers representing 43% of the Plan were noted as UNPRI signatories
  - Rhumbline, a WMBE firm who is not a UNPRI signatory, represents 23% of the total fund

SUGGESTIONS FOR LACERS

- **Establish baseline**
  - Review proxy voting guidelines
  - Evaluate ESG usage by existing managers
- **Consider broad ESG goals for the Plan, while being mindful of:**
  - Governance structure
  - Fiduciary duty to members of the system
- **ESG Integration at total plan level**
  - Preference for managers who factor ESG into investment process
    - Not mandatory for managing LACERS' assets
- **Update proxy voting guidelines to incorporate ESG goals**
- **Continue with educational efforts**
- **Evaluate and reassess ESG policy, trends and ESG association memberships each year**
  - Can coincide with annual proxy voting review

APPENDIX

NEPC'S APPROACH TO IMPACT INVESTING

NEPC, LLC

HIGHLIGHTS IN IMPACT INVESTING

- **Member of the PRI**
- **50+ clients pursuing impact investing**
- **Impact views fully integrated into research process**
- **Authored numerous white papers/educational materials**
- **Regularly host impact investing events**
- **Partnered with White House on Clean Energy and ESG Roundtables**
- **Partnered with MSCI to create customized reporting for ESG and carbon footprint**
- ***New development* – NEPC ESG Rating Tool**

OUR APPROACH: AN INTEGRATED GROUP

Research Teams

Dulari Pancholi, CFA, CAIA, Principal
Co-Head - Impact Group

Reino Ecklord, CFA, CAIA, Research Consultant

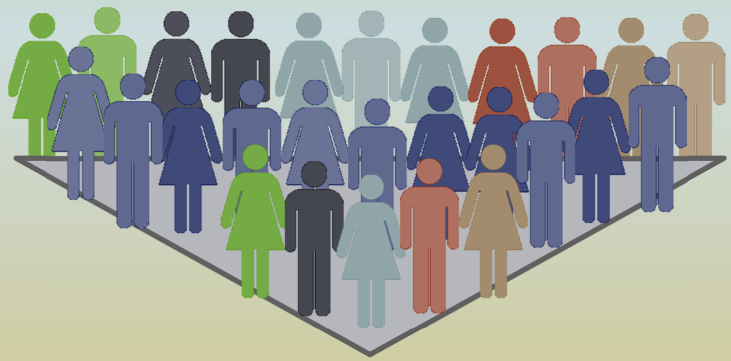
Melissa Mendenhall, Sr. Research Consultant
Oliver Fadly, Sr. Research Analyst
Private Equity/Credit

Jed Drake, Sr. Research Analyst
Real Estate/Assets

Kiersten Christensen, Sr. Research Consultant
John Lutz, Research Analyst
Emma Twitchell, Research Coordinator
Traditional

Sarah Bloom, Assistant
Marketing

Impact Investing Committee



Practice Teams

Kristine Pelletier, Principal
Co-Head – Impact Group
Scott Perry, CAIA, Partner
Lily Fayerweather, Investment Analyst
Endowment & Foundation

KC Connors, CFA, CAIA, Partner
Healthcare

Kelly Regan, Sr. Consultant
Elizabeth Turpin, Investment Analyst
Corporate

Sam Austin, Partner
Margaret Belmondo, CIMA®
Sr. Consultant
Michael Malchenko, Sr. Analyst
Public

Stacey Flier, Sr. Consultant
Private Wealth

As of 5/1/2018

IMPACT INVESTING RESEARCH PROCESS

Step 1: Idea Sourcing

Step 2: Impact Committee Review

Step 3: Research Team Review

Step 4: NEPC Due Diligence Committee Approval

NEPC ESG ANALYSIS – *RECENT DEVELOPMENT*

- **NEPC has developed an ESG evaluation tool that uses quantitative and qualitative assessment**

- **A quantitative approach to standardize comparison across managers in all asset classes**

- **A qualitative assessment to analyze the true intent of ESG integration**

- **ESG ratings and Due Diligence Ratings will be independent classifications**

NEPC - ESG INTEGRATION EVALUATION SAMPLE

General Fund Information	
Firm	Manager A
Fund	Intermediate Strategy
Strategy-Type	Domestic Fixed Income
Firm AUM	$30 billion
Strategy AUM	$10 billion
Portfolio Managers	Jane Smith

ESG Rating
ESG 1

Analyst Opinion
Manager A has made significant ESG incorporation efforts at the firm level which have penetrated all strategies through a systematically mandated process. ESG assessment is an integral part of their credit analysis, and they thoughtfully incorporate ESG in a material way.

Evaluation Criteria and Commentary	
Firm-Level	
Firm-Level Commitment	Manager A is a signatory to the UN PRI and Green Bond Principles, a certified B Corp, and a participant in Ceres, CDP, SASB, USSIF, STAR Communities, and CECP. They have formally integrated ESG into their processes since 2011, but have always informally incorporated elements of ESG.
Resources	Manager A employs a Director of Sustainability and a Director of Engagement, along with ESG researchers who work directly with credit analysts. They have a unique internal scoring system that evaluates companies using metrics relevant to their industries. They score all issuers on ESG, and a company will not be on the buy list unless its credit spread compensates for its ESG risk.
Engagement Policies	Manager A engages directly with company management on ESG factors that they feel are material to the issuer.
Strategy-Level	
Overview	All issuers are evaluated through Manager A's internal ESG scoring system. As an issue will not make the buy list unless their spread compensates for ESG, all strategies inherently incorporate ESG.
Integration Process	ESG is primarily viewed as a risk factor, and is evaluated based on materiality. The evaluation process takes place across all issuers, so all strategies essentially incorporate ESG in the same way.
Resources	In Manager A's internal rating system, the ESG scores appear on the main dashboard, with further detail available. All analysts and portfolio managers have access to the ESG data, and ESG analysts work with credit analysts in assessing risk.

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