

A REGULAR MEETING OF THE AUDIT COMMITTEE
OF THE BOARD OF RETIREMENT AND BOARD OF INVESTMENTS*
LOS ANGELES COUNTY EMPLOYEES RETIREMENT ASSOCIATION
300 N. LAKE AVENUE, SUITE 810, PASADENA, CALIFORNIA 91101

8:00 A.M., THURSDAY, DECEMBER 5, 2019

*The Committee may take action on any item on the agenda
and agenda items may be taken out of order.*

2019 AUDIT COMMITTEE MEMBERS

Gina Sanchez, Chair
Herman Santos, Secretary
Alan Bernstein
Shawn Kehoe
Ronald Okum
Les Robbins

AUDIT COMMITTEE CONSULTANT

Rick Wentzel

I. CALL TO ORDER

II. APPROVAL OF MINUTES

A. Approval of the Minutes of the Special Audit Committee Meeting of
August 7, 2019

III. PUBLIC COMMENT

IV. NON-CONSENT ITEMS

- A. Recommendation as submitted by Richard Bendall, Chief Audit Executive and Summy Voong, Senior Internal Auditor: That the Audit Committee review and discuss the Benefits Exception Report and provide the following action(s):
1. Accept and file report;
 2. Instruct staff to forward report to Boards or Committees; and/or
 3. Provide further instruction to staff.
(Memo Dated: November 22, 2019)
- B. Recommendation, as submitted by Richard Bendall, Chief Audit Executive and Kristina Sun, Senior Internal Auditor: That the Audit Committee review and discuss the Timekeeping Audit and provide the following action(s):
1. Accept and file report;
 2. Instruct staff to forward report to Boards or Committees; and/or
 3. Provide further instruction to staff.
(Memo Dated: November 22, 2019)

V. REPORTS

- A. Plante Moran Presentation of the Results of the Financial Audit
Michelle Watterworth, CPA Partner
Jean Young, CPA Partner
(Memo dated October 11, 2019)
- B. County Auditor-Controller's Report
Richard Bendall, Chief Audit Executive
(Memo dated November 27, 2019)
- C. Audit Plan Status Report
Richard Bendall, Chief Audit Executive
(Memo dated November 22, 2019)

V. REPORTS (Continued)

- D. Recommendation Follow-Up Report
Richard Bendall, Chief Audit Executive
(Memo dated November 22, 2019)
- E. Discuss the Value of Ethical Cultural Audit
Richard Bendall, Chief Audit Executive
(Verbal Presentation)
- F. Continuous Auditing Program (CAP)
Richard Bendall, Chief Audit Executive
(Memo dated on November 22, 2019)
- G. Status of Other External Audits Not Conducted at the Discretion of
Internal Audit
Richard Bendall, Chief Audit Executive
(Verbal Presentation)
- H. Internal Audit Staffing Report
Richard Bendall, Chief Audit Executive
Leisha Collins, Principal Internal Auditor
(Verbal Presentation)
- I. **Attorney-Client Privilege/Confidential Memo**
Privacy Audit Recommendation Follow-Up
Richard Bendall, Chief Audit Executive
(Memo dated November 25, 2019)
(For Information Only)
- J. **Attorney-Client Privilege/Confidential Memo**
Human Resources Compliance Audit [by Liebert Cassidy Whitmore]
Recommendation Follow-Up
Richard Bendall, Chief Audit Executive
(Memo dated November 25, 2019)
(For Information Only)

VI. CONSULTANT COMMENTS

Rick Wentzel, Audit Committee Consultant
(Verbal Presentation)

VII. GOOD OF THE ORDER (For Information Purposes Only)

VIII. ADJOURNMENT

****The Board of Retirement and Board of Investments have adopted a policy permitting any member of the Boards to attend a standing committee meeting open to the public. In the event five (5) or more members of either the Board of Retirement and/or the Board of Investments (including members appointed to the Committee) are in attendance, the meeting shall constitute a joint meeting of the Committee and the Board of Retirement and/or Board of Investments. Members of the Board of Retirement and Board of Investments who are not members of the Committee may attend and participate in a meeting of a Board Committee but may not vote on any matter discussed at the meeting. Except as set forth in the Committee's Charter, the only action the Committee may take at the meeting is approval of a recommendation to take further action at a subsequent meeting of the Board.***

Documents subject to public disclosure that relate to an agenda item for an open session of the Board and/or Committee that are distributed less than 72 hours prior to the meeting will be available for public inspection at the time they are distributed to a majority of the members of any such Board and/or Committee at LACERA's offices at 300 N. Lake Avenue, Suite 820, Pasadena, CA 91101 during normal business hours [e.g., 8:00 a.m. to 5:00 p.m. Monday through Friday].

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MINUTES OF THE SPECIAL MEETING OF THE AUDIT COMMITTEE OF THE
BOARD OF RETIREMENT AND BOARD OF INVESTMENTS

LOS ANGELES COUNTY EMPLOYEES RETIREMENT ASSOCIATION

300 N. LAKE AVENUE, SUITE 810, PASADENA, CA 91101

8:00 A.M., WEDNESDAY, AUGUST 7, 2019

PRESENT: Gina Sanchez, Chair
Herman Santos, Secretary
Alan Bernstein
Shawn Kehoe

ABSENT: Ronald Okum
Les Robbins

STAFF, ADVISORS, PARTICIPANTS

Richard Bendall, Chief Audit Executive
Steven P. Rice, Chief Counsel
Rick Wentzel, Audit Committee Consultant
Leisha Collins, Principal Internal Auditor
Christina Logan, Senior Internal Auditor
Gabriel Tafoya, Senior Internal Auditor

I. CALL TO ORDER

The meeting was called to order at 8:01 a.m., in the Board Room of Gateway Plaza.

II. PUBLIC COMMENT

There were no requests from the public to speak.

III. REPORTS

A. Discussion of future audit work under the direction of the Audit Committee and status of prior audit recommendations.

The committee had a discussion on outstanding audit recommendations.

IV. REPORT ON STAFF ACTION ITEMS

There was nothing to report.

V. GOOD OF THE ORDER
(For information purposes only)

VI. ADJOURNMENT

There being no further business to come before the Committee, the meeting was adjourned at 8:42 a.m.



November 22, 2019

TO: 2019 Audit Committee
Gina Sanchez, Chair
Herman Santos, Secretary
Alan Bernstein
Shawn Kehoe
Ronald Okum
Les Robbins

Audit Committee Consultant
Rick Wentzel

FROM: Richard Bendall 
Chief Audit Executive

Summy Voong 
Senior Internal Auditor

FOR: December 5, 2019 Audit Committee Meeting

SUBJECT: **Benefits' Exception Report Audit**

RECOMMENDATION

In accordance with your current Audit Committee Charter, staff recommends that the Audit Committee review and discuss the following engagement report to take the following action(s):

1. accept and file report and/or,
2. instruct staff to forward report to Boards or Committees and/or,
3. provide further instruction to staff.

ENGAGEMENT REPORTS

- a. Benefits' Exception Report Audit
Summy Voong, Senior Internal Auditor
(Report issued: November 22, 2019)

Attachments

SV



LACERA INTERNAL AUDIT DIVISION

Benefits' Exception Report Audit

November 22, 2019

AUDIT PERFORMED BY:
Summy Voong, CISA, CISM
Senior Internal Auditor

EXECUTIVE SUMMARY

As part of the Fiscal Year (FY) 2018-2019 audit plan, we completed an audit of the Benefits' exception report review process. This process encompasses staff's review of exception reports automatically generated by LACERA's internally developed benefits administration system, Workspace. The purpose of an exception report is to alert staff of potential errors in a member's account during the automated processing of transactions and to identify possible discrepancies in member records when validating data sent to and received from outside third parties (e.g., Los Angeles County and the Internal Revenue Service).

The primary purpose of our audit was to validate the completeness and accuracy of selected in-scope exception reports, provide assurance that internal controls exist over the creation, maintenance, and deletion of reports, and evaluate if the reports functioned as intended to assist the business unit in achieving its operational objectives. Reviewing exception reports have historically been an area of concern for LACERA management due to a number of factors including:

- Reports generated on a routine basis could number close to a hundred for a single staff member.
- Reports contain large amounts of records and data, which may include sensitive member information such as the full 16-digit social security number.
- Staff are generally required to validate all records of a report in order to identify only a few records that need actual correcting.
- Staff continue to receive certain reports after they have transferred to other divisions or business units.

The Business Analyst Group in Systems is responsible for developing the programming logic that identifies potential errors and discrepancies based on requirements set forth in Board or Business Policy, IRS rules, the 1937 Act or PEPRA law. Due to the large volume of exception reports generated throughout the organization, we limited the scope of this audit to key functions in the Account Integrity Services (AIS) and Special Benefit Services (SBS) areas in Benefits as these two business units typically handle the most complex member cases and therefore represent the most high-risk functions.

We determined operational procedures were adequate to provide reasonable assurance that staff appropriately reviewed and resolved exception reports potentially affecting the on-time payment of a retired member's benefits payment. However, we identified the following areas where oversight and controls could improve around the exceptions report review process by:

- 1) Consistently reviewing the programming logic used in developing exception reports to verify that exception reports data related to all member records are complete, accurate, and useful to the business unit.
- 2) Periodically reviewing report recipients to ensure that staff only receive reports as needed for their job responsibilities. This also assists management with identifying and deleting obsolete reports and ensures staff in new roles receive the appropriate level of training to understand and validate exception records to minimize LACERA's exposure to risks and liabilities.
- 3) Improving the archiving process for hard copy paper reports by limiting reports to electronic copy or appropriately tracking and destroying reports per LACERA's records retention program.

LACERA management agreed with all of our recommendations and has begun implementing or developing management actions plans to address the recommendations. Specific details of the observations, recommendations, and management responses are detailed in the remainder of the report. Internal Audit would like to express our gratitude to the Benefits and Systems Divisions for their assistance and cooperation with our audit.

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INTRODUCTION

As part of the Fiscal Year (FY) 2018-2019 audit plan, we completed an audit of the Benefits' exception report review process. This process encompasses staff's review of exception reports automatically generated by LACERA's internally developed benefits administration system, Workspace. The purpose of an exception report is to alert staff of potential errors in a member's account during the automated processing of transactions and to identify possible discrepancies in member records when validating data sent to and received from outside third parties (e.g., Los Angeles County and the Internal Revenue Service).

The primary purpose of our audit was to validate the completeness and accuracy of selected in-scope exception reports, provide assurance that internal controls exist over the creation, maintenance, and deletion of reports, and evaluate if the reports functioned as intended to assist the business unit in achieving its operational objectives. Due to the large volume of exception reports generated throughout the organization, we limited the scope of this audit to key functions in the Account Integrity Services (AIS) and Special Benefit Services (SBS) areas in Benefits as these two business units typically handle the most complex member cases and therefore represent the most high-risk functions.

BACKGROUND

The Workspace system tracks and processes retirement benefits for active, deferred, and retired members and generates the monthly benefits payroll for all retired members. Transactions and data processed through Workspace are programmed into automated batch jobs that run at different times based on the various operational processes throughout LACERA (e.g., retiree payroll distribution, monthly retiree benefits, semi-annual interest posting, and annual contribution rate changes, etc.,). Due to the high volume of transactions and data processed by Workspace, programming logic known internally as program criteria's were pre-defined and embedded into each batch job to automatically validate transactional data and identify errors or discrepancies in member records.

Batch Jobs

A batch job can contain multiple exception reports depending on the volume and complexity of the transactions processed. Batch jobs automatically run either daily, weekly, monthly, quarterly, semi-annually or annually and are monitored 24/7 by the Business Analyst Group in Systems. To ensure timely processing of member accounts with no issues, the program criteria's allow all valid transactions within the job to process and only delay those accounts flagged as exceptions. This process also ensures that the member account previously flagged as an exception will process correctly during the next scheduled batch job once staff correct the

error. Hard copy or electronic benefit exception reports are generated based on each batch job's program criteria's and benefits staff review the exception reports for potential errors.

Program Criteria's

The Business Analyst Group develop the batch job program criteria's based on requirements defined by business policies and rules as determined by the fund's sponsors and LACERA, and pertinent law governing LACERA such as CERL and PEPR. Changes in the law, business or board policy, and volume of transactions processed per batch job are some of the key factors that determine the development of new program criteria's with relevant stakeholders determining the requirements. The program criteria's development procedures follow the Systems Division's System Change Request (SCR) workflow which was the Division's' former system development life cycle (SDLC) process. Systems replaced the SCR process during the course of our audit fieldwork by a new ticket tracking system that allows end users to submit new report requests electronically by opening a Helpdesk Ticket and defining the business requirements. The new system also allows Systems to generate, appropriately track and manage the workflow for each new request throughout the development stages.

Account Integrity Services

The Benefits Division's Account Integrity Services (AIS) Group is responsible for ensuring all pertinent information in the member or beneficiary accounts are accurate. AIS consists of the following business units:

- Account Maintenance Unit (AMU) – this team maintains member records as part of the Agency Deduction Process. AMUs primary focus is to ensure the accuracy of member benefit deductions sent to agency or recipients. Agency deduction payments are categorized into two types:
 - Voluntary, which can include payments for credit unions, union dues, insurance and other membership organizations.
 - Involuntary, which can include federal, state, and local tax withholdings, child support, creditor garnishments, bankruptcy orders, student loan garnishments and federal loan agency garnishments.

Recipient deduction payments are payments required by a court order for child or spousal support and made directly to the recipient or an agency.

- Account Settlements Unit (ASU) – this team serves a lead role for a number of high-risk processes that could potentially affect LACERA's exposure to further risks and liabilities. Key functions include the over/under retirement payments collections, the Report Control Center, outlawed checks, and the required minimum distributions.
- Benefit Protection Unit (BPU) – this team coordinates LACERA's efforts to resolve "high risk" cases where a member's identity and/or status have come into question. Key

functions of the team include the Death Match Process, also known as the "Pension Benefit Information (PBI) Process," as well as the Member Verification Process.

Special Benefit Services

The Special Benefit Services (SBS) Group is responsible for all the complex member cases that require the most detailed analysis and consists of the following business units:

- Advanced Payroll Unit (APU) – this team handles all disability cases including service connected disabilities (SCD) for safety members and non-service connected disabilities for general members. This team also administers the payment correction process when a member's retirement payment requires adjustments.
- Death/Legal Unit (DLU) - this team handles all active and retiree death cases and divorce cases to determine beneficiary eligibility and each party's appropriate portion of the benefit payment.
- Benefits Exceptions Unit (BEU) - this team handles all other one-off exceptions cases that do not fall under any of the other team's purview. These cases generally require the most time intensive and detailed analysis by staff such as discharged members who were subsequently found to be wrongfully discharged, and therefore must be reinstated.

AUDIT OBJECTIVE(S)

The objectives of the audit were to review and assess the effectiveness and administrative oversight of the Benefits' Exception Report review process. Specifically, we determined the following:

1. Whether procedures exist to validate the completeness and accuracy of selected in-scope exception reports.
2. Whether internal controls exist over the administrative process for creating, maintaining, and deleting exception reports.
3. If the reports function as intended to assist the business unit in achieving its operational objectives and ensure the integrity of member accounts and transactions.

AUDIT SCOPE

The scope of the audit covered fiscal year 2018/2019 and focused on exception reports that operationally support key functions in the Account Integrity and Special Benefits Services areas in Benefits.

Specifically, we reviewed and evaluated the following:

- Staff and management's review process for in-scope exception reports to validate the completeness, accuracy, and usefulness of the reports.
- The effectiveness of controls and procedures in place to ensure that reports are appropriately requested, tracked, and deleted when obsolete.
- The efficiency and effectiveness of management's procedures to ensure reports appropriately assist the business unit in achieving its operational objectives, verify reports are reviewed timely with documented support and issues identified are resolved.

Note: *Our review did not examine all exception reports due to the large volume of exception reports generated throughout the organization. Internal Audit will evaluate exception reports as part of our annual risk assessment to determine if a separate exceptions report audit is necessary for other parts of the organization.*

AUDIT METHODOLOGY

Our audit methodology was designed to provide a managerial-level review of the benefits' exception report review practices, which included detailed testing of a limited number of reports. Our testing approach focused on evaluating exception reports used in key operational processes, with emphasis on those that could affect a retired member's on-time benefits payment.

To test if procedures exist to validate the completeness and accuracy of selected in-scope exception reports:

- Defined all key business functions of each team in the Account Integrity and Special Benefits Services business units.
- Documented the exception reports used by the each team that support their key business functions.
- Reviewed existing policies and procedures related to the exceptions report review processes.
- Interviewed staff and management from both Systems and Benefits to define each division's understanding of the exceptions report review requirements.

To test if internal controls exist over the administrative process for creating, maintaining, and deleting exception reports:

- Obtained a listing of System Change Requests (SCR) forms for the audit period to understand System's process for creating exception reports.
- Confirmed that requests for new or modified exception reports were appropriately requested with a valid business requirement, tested in development environment by end users, and approved prior to migrating to production.

- Validated that obsolete exception reports were deleted and retired/resigned/transferred staff no longer received reports outside their normal job functions.

To test if the reports function as intended to assist the business unit in achieving its operational objectives:

- Sampled an exception report from each team in Account Integrity and Special Benefits Services to walkthrough staffs review of the identified exceptions.
- Discussed internal controls and procedures in place to manage both hard copies and electronic versions of exception reports.

AUDIT RESULTS

Overall, we determined operational procedures were adequate to provide reasonable assurance that staff appropriately reviewed and resolved exception reports potentially affecting the on-time payment of a retired member's benefits payment. However, we identified the following areas where oversight and controls could improve around the exceptions report review process by:

- 1) Consistently reviewing the programming logic used in developing exception reports to verify that exception reports data related to all member records are complete, accurate, and useful to the business unit.
- 2) Periodically reviewing report recipients to ensure that staff only receive reports as needed for their job responsibilities. This also assists management with identifying and deleting obsolete reports and ensures staff in new roles receive the appropriate level of training to understand and validate exception records to minimize LACERA's exposure to risks and liabilities.
- 3) Improving the archiving process for hard copy paper reports by limiting reports to electronic copy or appropriately tracking and destroying reports per LACERA's records retention program.

Specific details of the observations, recommendations, and management responses are detailed below.

Issue #1: Benefit exception reports data lacked completeness, accuracy and usefulness.

During our discussions with staff regarding their exception reports review procedures and as part of our report testing, we noted several instances where data on the exception reports lacked completeness, accuracy, and usefulness. Internal Audit performed a detailed review of records for at least one exception report in five of the six Account Integrity Services (AIS) and Special Benefits Services (SBS) teams, as the Benefits Protection Unit currently does not receive exception reports. Based on our analysis, we identified errors in each of the reports ranging from false positives, inaccurately classified records, missing time periods or unknown error types. Due to the completeness and accuracy issues as noted, in addition to the unknown error types printed on the reports, staff in AIS and SBS have determined that all records in an exception report would require validation, however time, resource constraints and competing priorities limited staffs' ability to consistently perform this function.

Recommendation

1. Benefits and Systems management should collaboratively implement a consistent process to evaluate exception reports data for completeness, accuracy, and usefulness. The process should include steps to maintain an inventory of current reports and error types and identify reports that have inaccurate or irrelevant data. This will enhanced staff's understanding of the content in the exception reports and ensure information that management and staff rely upon to make judgments regarding member accounts are meaningful and does not negatively impact LACERA's fiduciary duty to maintain the fund.

Management Response

Management agrees with the recommendation and will establish a system for routinely reviewing and, as needed, modifying systems-generated exception reports used by the Benefits Division. The Benefits Process Management Group will work in conjunction with LACERA's Compliance Office and Systems to address this challenge within the framework of LACERA's Compliance Program and LACERA's strategic vision. Management anticipates completing an evaluation of the key exception reports by June 30, 2020. Management also anticipates performing an ongoing analysis of exception reports as part of a future project to reengineer the application that produces the exception reports. The project is currently in the planning stage and is part of LACERA's long-term strategic plan.

Issue #2: Management should assess the associated risks and liabilities to LACERA if reports are not reviewed.

In addition to the exception reports that alert staff to errors in the automated batch jobs, other reports are routinely generated that identify certain instances where a member's account may

need further staff review such as the "Missing Contributions," "Outlawed Checks" and "Deferred/Inactive Member" files. The "Missing Contributions" file contains members who could be underpaying their required contributions, while the "Outlawed Checks" file contains a listing of outstanding stale dated checks and the "Deferred/Inactive Member" file contains members who could potentially be required to take a minimum distribution for federal tax purposes. Per inquiry with staff in Account Settlement Unit, Internal Audit noted that due to competing priorities, false positive records as previously identified, time constraints, and limited staff resources, staff would often prioritize reviewing reports and processes that affect the on-time benefit payment for retired members over these reports. By doing so, there is an increased risk that significant errors are missed and not corrected which eventually become financially detrimental to our members. Internal Audit further noted, prior to our audit, the Benefits Division was already aware of the potential risk of not reviewing these reports and had already begun separate special projects to address the underlying issues in lieu of focusing on validating records in the exception reports. The Process Management Group (PMG) in Benefits is currently managing these special projects.

Recommendation

2. Benefits management should continue working with the PMG group to evaluate and refine the exceptions reports review process however, management should also consider developing a process that includes:
 - a. Identifying a complete population of key reports and documenting the purpose of each report
 - b. Documenting LACERA's exposure to additional risks and liabilities associated with the information in those key reports
 - c. Defining procedures to consistently validate the completeness and accuracy for those reports when changes occur to business rules or the law

Management Response

Management agrees with the recommendation and will consider these factors as it establishes a system for managing the exception reports. Management anticipates completing this recommendation by June 30, 2020.

Issue #3: Management should review the record retention process in the Report Control Center

The Report Control Center (RCC) is the Benefits process for managing the large volume of reports that automatically print throughout the month. Staff assigned to the RCC are responsible only for collecting and sorting the printed reports, distributing them to the appropriate staff for review, and filing the reports that staff signed off. During our walkthrough of the RCC process, we observed that hard copies of the reports for the current and prior fiscal years are stored in

locked cabinets in the Benefits Division suite due to the sensitive member data contained in each report. We confirmed that staff generally keep the cabinets locked at all times, including during normal business hours, and only a select number of staff have access to the cabinet keys. While this practice ensures that visitors and other employees who are not authorized do not inadvertently access sensitive information, we noted however that older RCC reports were exposed to such risks during the archiving process. RCC reports when archived to the basement of the building or off-site to Iron Mountain are placed into boxes that are not further secured and removed by staff in Administrative Services or the vendor.

Recommendation

3. Benefits management should review and establish retention cut-off dates in the Report Control Center (RCC) to ensure that reports are destroyed after a certain time period to mitigate any potential information security risks. Benefits should also perform an inventory of currently stored reports and destroy reports no longer needed.

Management Response

Management agrees with the recommendation and will enforce LACERA's document retention policies in the Report Control Center (RCC). Management has instructed staff to work with the Records and Information Management (RIM) Unit to compile an inventory of all stored reports by December 31, 2019 and destroy reports no longer needed by March 31, 2020.

Issue #4: The administrative process for deleting obsolete or invalid exception reports requires improvement.

To determine timely deletion of obsolete or invalid exception reports, Internal Audit requested a listing of all current, retired, and transferred staff in both the Account Integrity Services and Special Benefit Services groups and a list of all reports sent those individuals. We noted two employees, who retired from LACERA during the first quarter of 2019, were still listed as active recipients.

We noted a contributing factor for the error was the lack of documented policies and procedures for consistently reviewing exception report content, report recipients and notifying Systems when a report was obsolete or a user should stop receiving a report. Prior to our audit, the Benefits Division had recognized the need to develop procedures for cleaning up the high volume of exception reports sent to the Division and currently has plans to work with Systems to define an appropriate process going forward. We should also note that the two retired staff members Internal Audit identified have since been removed from the active recipient lists for those reports.

Recommendation

4. Benefits and Systems management should implement a formal periodic review process to evaluate exception reports data and recipients and establish policies and procedures to delete obsolete exception reports and recipients. A formalized review process, policies and procedures would help ensure that reports continue to assist the business unit achieve its operational objectives, obsolete reports are deleted timely and recipients only receive reports commensurate with their job responsibilities.

Management Response

Management agrees with the recommendation and will consider these factors as it establishes a system for managing the exception reports. Management anticipates defining the review process, policy and procedures, as well as implementing this recommendation by June 30, 2020.

Issue #5: Management should assess the administrative and resource costs to LACERA for expenses related to managing the exception reports process.

Internal Audit noted during our discussions as well as during our sample report testing, several instances where exception reports containing hundreds of pages of data as well as numerous cover pages automatically print. One report in particular contained over 450+ pages and was configured to print twice a month while another report that printed daily had a total of 69 pages of which 38 contained cover page type information such as report name, recipient and database name. Per inquiry with staff in the Report Control Center as well as other areas that receive automatically printed reports, we noted that Benefit's staff have dedicated portions of their day to ensure the printers had paper at all times and that all exception reports pages were collected and sorted. Furthermore, Systems helpdesk staff would often automatically replace the ink and toner for those printers on a set schedule.

Recommendation

5. Benefits and Systems management should collaboratively work to determine if all hard copy reports can be limited to electronic copy and allow staff to print only the reports and/or pages of the report that are needed.

Management Response

Management agrees with the recommendation and will consider these factors as it establishes a system for managing the exception reports. Benefits management anticipates completing an evaluation of the hard copy exception reports and Systems management has confirmed it is ready to convert those reports to electronic copies at the direction of Benefits by June 30, 2020.

CONCLUSION

We determined operational procedures were adequate to provide reasonable assurance that staff appropriately reviewed and resolved exception reports potentially affecting the on-time payment of a retired member's benefits payment. However, we identified a few specific control area where oversight and controls could improve. LACERA management agreed with all of our recommendations and has begun implementing or developing management actions plans to address the recommendations.

Internal Audit would like to express our gratitude to the Benefits and Systems Divisions for their assistance and cooperation with our audit.

REVIEWED AND APPROVED



Richard Bendall
Chief Audit Executive

Date: November 22, 2019

REPORT DISTRIBUTION

2019 Audit Committee
Rick Wentzel

Santos Kreimann
J.J. Popowich
Steven Rice

James Brekk
Bernie Buenaflor
Internal Audit Staff

November 22, 2019

TO: 2019 Audit Committee
Gina Sanchez, Chair
Herman Santos, Secretary
Alan Bernstein
Shawn Kehoe
Ronald Okum
Les Robbins

Audit Committee Consultant
Rick Wentzel

FROM: Richard Bendall 
Chief Audit Executive

Kristina Sun ^{KS}
Senior Internal Auditor

FOR: December 5, 2019 Audit Committee Meeting

SUBJECT: **Timekeeping Audit**

RECOMMENDATION

In accordance with your current Audit Committee Charter, staff recommends that the Audit Committee review and discuss the following engagement report to take the following action(s):

- 1. accept and file report and/or,**
- 2. instruct staff to forward report to Boards or Committees and/or,**
- 3. provide further instruction to staff.**

ENGAGEMENT REPORTS

- a. Timekeeping Audit
Kristina Sun, Senior Internal Auditor
(Report issued: November 22, 2019)

Attachments

KS



LACERA INTERNAL AUDIT DIVISION

Timekeeping Audit

November 22, 2019

AUDIT PERFORMED BY:

Kristina Sun, CPA, CIA
Senior Internal Auditor

EXECUTIVE SUMMARY

As part of the Fiscal Year (FY) 2018-2019 audit plan, the Internal Audit (IA) performed a review of the existing timekeeping process. Timekeeping is the process by which an employee records hours worked and variance time. The timekeeping process is supported by the Los Angeles County's electronic human resources system (eHR system) capable of performing payroll, time and attendance, and human resources functionalities.

LACERA's Human Resources (HR) Division oversees the timekeeping function; however, LACERA has a decentralized timekeeping process. Each division has designated timekeepers and proxies that help facilitate the timekeeping process. A timekeeper is a designated individual responsible for monitoring staff's time and attendance. A proxy is a designated individual authorized to enter and submit a timesheet on behalf of other employees.

Division managers are ultimately responsible for the accuracy of staff's submitted timesheets.

Overall, we found the timekeeping process operates effectively with support by Human Resources. However, Internal Audit identified the following areas where HR could improve their oversight and the controls around timekeeping by:

- 1) Developing formal timekeeping policies and procedures to promote consistency and compliance
- 2) Centrally tracking timekeeper and proxy roles in each division
- 3) Providing ongoing timekeeping training to ensure staff are well-informed on the latest policies and procedures

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INTRODUCTION

As part of the Fiscal Year (FY) 2019-2020 audit plan, the Internal Audit (IA) Division was engaged to perform a review of the existing timekeeping process.

Timekeeping is the process by which an employee records hours worked and leaves taken. The timekeeping process is supported by the Los Angeles County's electronic human resources system (eHR system) capable of performing payroll, time and attendance, and human resources functionalities. Access to the eHR system is only available on-site at LACERA to employees via a company computer.

BACKGROUND

LACERA's Human Resources (HR) Division oversees the timekeeping function; however, LACERA has a decentralized timekeeping process. Each division has designated timekeepers and proxies that serve as control points for the timekeeping process. Depending on the division size, multiple timekeepers and proxies, including back up designees, exist to provide full coverage for the staff.

Timecards are due twice a month and are completed by an employee or a proxy. While a majority of timecards are submitted electronically via the eHR system, HR prepares manual timecards for LACERA staff in certain situations such as medical leave. Our scope focused on the timecards processed through the eHR system.

A timekeeper is a designated individual responsible for monitoring staff's time and attendance. A proxy is a designated individual authorized to enter and submit a timesheet on behalf of other employees. Proxies are used in situations where the employee is out of the office when their timesheet is due. In general, proxies should not approve the timesheets that they submit.

Division managers are ultimately responsible for the accuracy of staff's submitted timesheets. Division managers serve as control points throughout the timekeeping process.

AUDIT OBJECTIVE

- Review organization-wide timekeeping and reporting processes to assess accuracy of staff timecards and effectiveness of related internal controls

AUDIT METHODOLOGY

- Interviewed HR management and timekeeping staff on current work processes
- Performed a walkthrough to obtain an understanding of the timekeeping process
- Conducted questionnaires/surveys to divisional timekeepers and proxies on current timekeeping practices

- Since the timekeeping practice is decentralized, we conducted a survey of divisional timekeeping practices to every timekeeper and proxy
- Reviewed applicable LACERA human resources policies related to timekeeping for compliance

AUDIT SCOPE

- Review decentralized timekeeping process in all divisions and oversight by HR, with focus on segregation of duties controls, general internal controls, manual adjustment controls, and eHR System controls
- The scope of this audit does not include validating the accuracy of timecards at the divisional level.

RESULTS

Internal Audit reviewed policies, procedures, and documentation provided by Human Resources (HR) Division and conducted a timekeeping survey by means of a self-evaluation questionnaire to identified timekeepers and proxies. The questionnaire was developed by Internal Audit and sent to 22 LACERA staff across 15 LACERA divisions. The questionnaire focused on understanding of current timekeeping policies and procedures, training, supervision and backup, and utilization of the eHR system and its capabilities. Internal Audit also solicited feedback on any concern and difficulty that the timekeepers and proxies experienced with the current timekeeping process.

Overall we found the timekeeping process operates effectively with support by Human Resources. Based on a 91% response rate to the timekeeping questionnaire, the responses to the survey were generally positive. However, as a result of the questionnaire responses and Internal Audit's review of the current timekeeping process, we identified the following areas to further strengthen the process:

- 1) Timekeeping Policies and Procedures: Internal Audit obtained and reviewed the only written documentation provided by HR which was a 12-pages document titled *Quick Guide to Timesheet Submission* ("HR Guide"). The HR Guide was limited to brief instructions on how to submit one's own timecard in the eHR system. No other LACERA documentation related to timekeeping was provided by HR or available on LACERA's Intranet site.

LACERA does not have a standard set of timekeeping policies or procedures. Human Resources (HR) management is responsible for designing control activities through formal policies and procedures that are written, dated, and signed. It would reduce potential risks such as inaccurate hours being recorded in the eHR system, inaccurate pay codes used for leaves or absences, and most importantly, inaccurate payroll.

Under the current timekeeping process, when a question or issue arises during the current timekeeping process, the timekeepers call a HR Staff for assistance. The inquiry topic ranges from experiencing eHR system glitches to asking about which pay code is appropriate to use. The latter issue stems from the numerous job types that exist at LACERA: Exempt, Non-Exempt, Represented, and Non-Represented. Each job type is entitled to different benefits and correspondingly, each job type has different pay codes for reporting variance time.

Based on survey responses, we identified several best practices that are employed by some LACERA divisions:

- The Division Manager creates divisional timekeeping procedures that are distributed and acknowledged by staff.
- Staff utilize the eForms function within the eHR system for time-off requests.
- A divisional calendar is shared among staff to track time off activities and enhance transparency.

Having formal timekeeping policies and procedures would serve as stronger, more effective internal controls. It would further promote consistency and efficiency throughout the timekeeping process.

Recommendations

1. HR should develop formal timekeeping policies and procedures to promote consistency and compliance within LACERA. This includes understanding which Los Angeles County human resources laws and policies are applicable to LACERA.
2. HR should track frequently asked questions and create a FAQ or equivalent document to educate staff and increase effectiveness of timekeeping process.

Management Response

Management agrees with the recommendations. Human Resources Division developed a draft timekeeping policy and procedures along with a draft guide to timesheet coding and submission that is pending release of the new employee handbook. The estimated completion date is March 31, 2020. Additionally, the FAQs are scheduled to be posted on the Intranet by December 6, 2019. Human Resources Division will send the timekeeping policy and procedures annually to all Staff Members and update the FAQs on the Intranet as needed.

- 2) Timekeepers and Proxies Listing: A listing of the divisional timekeepers and proxies, including backup personnel, is not maintained. During the questionnaire evaluation process, Internal Audit identified certain divisions without a designated backup timekeeper and/or proxy, of which HR serves as the backup role. We noted it would be beneficial to have a designated backup staff within the division who can actively monitor staff's time for timekeeping accuracy.

Additionally, a temporary timekeeper may be assigned when the regular timekeeper and backup timekeeper are out on leave. We noted an instance where the temporary timekeeper's access was not revoked once their short-term assignment ended. Proper documentation from HR would ensure that timekeeping supervision is appropriately delegated and sufficient segregation of duties are in place.

Recommendation

3. HR should track who performs the roles and responsibilities of timekeeper and proxy, including any backup role within each division, to ensure that an appropriate segregation of duties is maintained. Temporary timekeepers and proxies should also be tracked to ensure approval and access rights are terminated when no longer needed.

Management Response

Management agrees with the recommendations. Human Resources will create a policy and formal process for the Divisions to follow to appoint or remove staff members as timekeepers and proxies, including any backup role within each division. Based upon this, Human Resources Division will create and maintain a list of timekeepers and proxies, including any backup role within each division. Human Resources will update the list accordingly. The estimated completion date is March 31, 2020.

- 3) Timekeeping Training: A common feedback from the respondents was the request for additional training or periodic refresher courses on timekeeping. In the past, timekeeping training were held sporadically and infrequently. For new timekeepers and proxies, they often do not receive timekeeping training before they take on the roles and responsibilities of being a timekeeper or proxy. For seasoned timekeepers and proxies, they were not consistently provided with refresher courses once the initial training was provided.

Recommendation

4. HR should create a documented process to ensure training is provided timely to new timekeepers and proxies as well as refresher training to existing

timekeepers, proxies, and their supervisors. Internal Audit recommends the documented process occurs on an annual basis at each division.

Management Response

Management agrees with the recommendation. Upon notification of a new timekeeper, Human Resources will schedule training with the newly appointed timekeeper. In addition, Human Resources will schedule training twice a year for all timekeeper and proxies. The estimated completion date is March 31, 2020.

Internal Audit would like to express our gratitude to Human Resources Management and staff for their cooperation, assistance, and time during the course of this review.

REVIEWED AND APPROVED



Richard Bendall
Chief Audit Executive

Date: November 22, 2019

REPORT DISTRIBUTION

2019 Audit Committee
Rick Wentzel

Santos Kreimann
J.J. Popowich
Steven Rice

Annette Cleary
Internal Audit Staff



plante moran

Los Angeles County
Employees Retirement
Association

Audit Presentation

December 5, 2019



Introductions



Jean Young, CPA
Partner



Michelle Watterworth, CPA
Partner



Agenda

- ✓ Audit timeline
- ✓ Audit areas of focus
- ✓ Results of the audit
 - ✓ Audit opinion letter
 - ✓ Required communications
- ✓ Upcoming pronouncements
- ✓ Questions



Audit timeline

Our involvement began immediately upon contract inception.

- February/March 2019 – Initiated planning procedures
- May/June 2019 – Performed interim procedures, including on-site visit and testing
- July/August 2019 – Performed additional planning and audit procedures remotely
- September/October 2019 – On-site testing and review of financial statements
- October 11, 2019 – Timely issuance of audit opinion



Audit areas of focus

The ultimate goal of the audit is the expression of an opinion on your financial statements.

- Investment valuations
- Census data testing, particularly at the County level
- Actuarial assumptions and actuarial calculations
- Accuracy of benefit calculations and related payments, including disability payments
- Financial reporting



Results of the audit

Opinion

In our opinion, the basic financial statements referred to above present fairly, in all material respects, the fiduciary net position of Los Angeles County Employees Retirement Association as of June 30, 2019 and 2018 and the changes in fiduciary net position thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

- ✓ Unmodified Opinion
- ✓ Emphasis of Matter
 - ✓ Valuation of Harder to Value Investments



Results of the audit

Required Communication with Those Charged With Governance

- Management estimates included within the financial statements
 - Harder to value investments – based upon information obtained from various sources
 - Actuarial assumptions
 - Long-term expected rate of return and discount rate
 - Mortality assumptions
 - No difficulties or disagreements with management in performing the audit
- No corrected or uncorrected misstatements



Upcoming pronouncements

Below is a timeline of upcoming pronouncements that will impact LACERA (or its employers):

- GASB Statement No. 84 – Fiduciary Activities – effective for the 6/30/20 fiscal year
 - This Statement establishes criteria for identifying fiduciary activities, and will require change reporting and add a statement of changes in fiduciary net position related to the OPEB Agency Fund. LACERA will need to assess the new definition of a custodial fund liability under the standard.
- GASB Statement No. 87 – Leases – effective for the 6/30/21 fiscal year.
 - This Statement will require recognition of certain lease assets and liabilities for leases that previously were classified as operating leases



Questions?



Thank you!

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October 11, 2019

To the Board of Retirement and Board of Investments
Los Angeles County Employees Retirement Association

We have audited the financial statements of Los Angeles County Employees Retirement Association (LACERA) as of and for the fiscal year ended June 30, 2019 and have issued our report thereon dated October 11, 2019. Professional standards require that we provide you with the following information related to our audit

Our Responsibility Under U.S. Generally Accepted Auditing Standards

As stated in our engagement letter dated May 10, 2019, our responsibility, as described by professional standards, is to express an opinion about whether the financial statements prepared by management with your oversight are fairly presented, in all material respects, in conformity with U.S. generally accepted accounting principles. Our audit of the financial statements does not relieve you or management of your responsibilities. Our responsibility is to plan and perform the audit to obtain reasonable, but not absolute, assurance that the financial statements are free of material misstatement.

As part of our audit, we considered the internal control of Los Angeles County Employees Retirement Association. Such considerations were solely for the purpose of determining our audit procedures and not to provide any assurance concerning such internal control.

We are responsible for communicating significant matters related to the audit that are, in our professional judgment, relevant to your responsibilities in overseeing the financial reporting process. However, we are not required to design procedures specifically to identify such matters.

Our audit of LACERA's financial statements has also been conducted in accordance with *Government Auditing Standards*, issued by the Comptroller General of the United States. Under *Government Auditing Standards*, we are obligated to communicate certain matters that come to our attention related to our audit to those responsible for the governance of LACERA, including compliance with certain provisions of laws, regulations, contracts, grant agreements, certain instances of error or fraud, illegal acts applicable to government agencies, and significant deficiencies in internal control that we identify during our audit. Toward this end, we issued a separate letter dated October 11, 2019 regarding our consideration of LACERA's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements.

Planned Scope and Timing of the Audit

We performed the audit according to the planned scope and timing previously communicated to you in our letter about planning matters on August 29, 2019.

Significant Audit Findings

Qualitative Aspects of Accounting Practices

Management is responsible for the selection and use of appropriate accounting policies. In accordance with the terms of our engagement letter, we will advise management about the appropriateness of accounting policies and their application. The significant accounting policies used by LACERA are described in Note B to the financial statements.

No new accounting policies were adopted, and the application of existing policies was not changed during 2019.

We noted no transactions entered into by LACERA during the year for which there is a lack of authoritative guidance or consensus.

There are no significant transactions that have been recognized in the financial statements in a different period than when the transaction occurred.

Accounting estimates are an integral part of the financial statements prepared by management and are based on management's knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ significantly from those expected. The most significant estimates related to LACERA's financial statements surround alternative investments and the assumptions within the pension valuation, as more fully explained below:

Alternative Investments: As explained in Note P, the financial statements include investments valued at \$14,265,613,000 (24 percent of net position) at June 30, 2019, whose fair values have been estimated by management in the absence of readily determinable market values. Management uses various means to estimate the fair value of these investments, including utilizing audited financial statements and quarterly investment manager reports.

Pension Valuation Assumptions: Financial statement disclosures and required supplementary information schedules contain information about LACERA's total pension liability. In order to determine this liability, the actuary must apply certain assumptions, which are highly sensitive to estimation. The most sensitive estimates used in the pension valuations are as follows:

- **Long-term Assumed Rate of Return:** For purposes of GASB 67, as of June 30, 2019, LACERA is currently using 7.38 percent for the assumed long-term expected rate of return (gross of administrative expense load of 0.13 percent). The return is based on the results of a 2016 investigation of experience and supported by LACERA's external advisor's capital market assumptions updated in January 2019.
- **Single Discount Rate:** The calculation of the single discount rate under GASB Statement No. 67, which is calculated using the long-term assumed rate of return as one of many inputs, is also highly sensitive to estimates the actuary makes about future contributions and future benefit payments. Given LACERA's funding policy and legal requirements under CERL and PEPPRA, the actuary determined that projected fiduciary net position is sufficient to fund current projected benefit payments.

- **Mortality Assumptions:** The pre- and post-retirement mortality assumptions impact the total pension liability projected by LACERA's actuary. The assumptions about mortality were estimated by the actuary based on the results of an experience study that was performed during 2016 utilizing the actuarial experience of LACERA for the period from July 1, 2013 through June 30, 2016. Based on that experience study, in the actuarial valuation, the actuary has used the RP-2014 tables with the MP-2014 generational improvement scales.

Disclosure of these assumptions and resultant sensitivity of the discount rate can be found in Notes E and S to the financial statements.

We believe management's estimates are in accordance with generally accepted accounting principles. We evaluated the key factors and assumptions used to develop these estimates in determining that the estimates are reasonable in relation to the financial statements taken as a whole.

The disclosures in the financial statements are neutral, consistent, and clear. Certain financial statement disclosures are particularly sensitive because of their significance to financial statement users. The most sensitive disclosures affecting the financial statements are the disclosures related to GASB Statement No. 67, including the actuarial valuation results, as well as the GASB Statement No. 72 fair value disclosures.

Difficulties Encountered in Performing the Audit

We encountered no significant difficulties in dealing with management in performing and completing our audit.

Disagreements with Management

For the purpose of this letter, professional standards define a disagreement with management as a financial accounting, reporting, or auditing matter, whether or not resolved to our satisfaction, that could be significant to the financial statements or the auditor's report.

We are pleased to report that no such disagreements arose during the course of our audit.

Corrected and Uncorrected Misstatements

Professional standards require us to accumulate all known and likely misstatements identified during the audit, other than those that are trivial, and communicate them to the appropriate level of management.

We did not detect any misstatements as a result of our audit procedures.

Significant Findings or Issues

We generally discuss a variety of matters, including the application of accounting principles and auditing standards, business conditions affecting LACERA, and business plans and strategies that may affect the risks of material misstatement, with management each year prior to our retention as LACERA's auditors. However, these discussions occurred in the normal course of our professional relationship, and our responses were not a condition of our retention.

Management Representations

We have requested certain representations from management that are included in the management representation letter dated October 11, 2019.

Management Consultations with Other Independent Accountants

In some cases, management may decide to consult with other accountants about auditing and accounting matters, similar to obtaining a "second opinion" on certain situations. If a consultation involves application of an accounting principle to LACERA's financial statements or a determination of the type of auditor's opinion that may be expressed on those statements, our professional standards require the consulting accountant to check with us to determine that the consultant has all the relevant facts. To our knowledge, there were no such consultations with other accountants.

Other Information in Documents Containing Audited Financial Statements

Our responsibility for other information in documents containing LACERA's financial statements and report does not extend beyond the financial statements. We do not have an obligation to determine whether or not such other information is properly stated. However, we read the introductory, investment, actuarial, and statistical sections of the Comprehensive Annual Financial Report (CAFR), and nothing came to our attention that caused us to believe that such information, or its manner of presentation, is materially inconsistent with the information or manner of its presentation appearing in the financial statements.

This report is intended solely for the use of the board of retirement, board of investments, and management of LACERA and is not intended to be and should not be used by anyone other than these specified parties.

We welcome any questions you may have regarding the following communications, and we would be willing to discuss any of these or other questions that you might have at your convenience.

Very truly yours,

Plante & Moran, PLLC



Michelle Watterworth, CPA
Partner



Jean Young, CPA
Partner

**LOS ANGELES COUNTY EMPLOYEES
RETIREMENT ASSOCIATION**

**REPORT ON AUDITED FINANCIAL STATEMENTS
FOR THE FISCAL YEARS ENDED JUNE 30, 2019 AND 2018**

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FINANCIAL SECTION

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Independent Auditor's Report

To the Board of Retirement and Board of Investments
Los Angeles County Employees Retirement Association

Report on the Financial Statements

We have audited the accompanying financial statements of Los Angeles County Employees Retirement Association (LACERA) as of and for the years ended June 30, 2019 and 2018 and the related notes to the financial statements, which collectively comprise LACERA's 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 audits. We conducted our audits 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 from 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 the entity's 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 the entity's 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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Opinion

In our opinion, the basic financial statements referred to above present fairly, in all material respects, the fiduciary net position of Los Angeles County Employees Retirement Association as of June 30, 2019 and 2018 and the changes in fiduciary net position thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

As explained in Note P, the financial statements include investments valued at \$14,265,613,000 (24 percent of net position) at June 30, 2019 and \$13,991,093,000 (25 percent of net position) at June 30, 2018, whose fair values have been estimated by management in the absence of readily determinable market values. Given that publicly listed prices are not available, management uses alternative sources of information, including audited financial statements, unaudited interim reports, independent appraisals, and other similar sources of information to determine the fair value of investments. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion & analysis and required supplementary information, as identified 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 Governmental Accounting Standards Board, which 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 opinions on the financial statements that collectively comprise Los Angeles County Employees Retirement Association's basic financial statements. The other supplementary information, as identified in the table of contents, and the investment, actuarial, and statistical sections are presented for the purpose of additional analysis and are not a required part of the basic financial statements.

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To the Board of Retirement and Board of Investments
Los Angeles County Employees Retirement Association

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

The 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.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated October 11, 2019 on our consideration of Los Angeles County Employees Retirement Association's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, grant 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 Los Angeles County Employees Retirement Association's internal control over financial reporting and compliance.

Plante & Moran, PLLC

October 11, 2019

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Management's Discussion and Analysis as of June 30, 2019

INTRODUCTION

Management is pleased to provide this discussion and analysis (MD&A) of the financial activities of the Los Angeles County Employees Retirement Association (LACERA) for the year ended June 30, 2019. We encourage readers to consider the information presented here in conjunction with information included in the Letter of Transmittal found in the Introductory Section of the Comprehensive Annual Financial Report (CAFR).

FINANCIAL HIGHLIGHTS

Pension Plan

- Net Position Restricted for Benefits, as reported in the June 30, 2019 Statement of Fiduciary Net Position, totaled \$58.3 billion, an increase of \$2.0 billion or 3.5 percent from June 30, 2018.
- Total Additions, as reflected in the Statement of Changes in Fiduciary Net Position, were \$5.5 billion. This was primarily due to positive investment earnings and increases in employer and member contributions. Although Total Additions increased in 2019, such increase equaled \$1.4 billion or 19.8 percent less than the amounts realized in 2018.
- Total Deductions, as reflected in the Statement of Changes in Fiduciary Net Position, totaled \$3.5 billion, an increase of \$208 million or 6.3 percent from the prior year. The increase was primarily attributable to an increase in pension benefits paid to retired members.
- Milliman, LACERA's independent consulting actuary, completed the latest actuarial valuation as of June 30, 2018, which is used in preparing this CAFR, and determined the funded status of the Pension Plan (the ratio of actuarial value of assets to actuarial accrued liabilities) to be 80.6 percent versus 79.9 percent as of June 30, 2017. The increase in funded ratio was primarily due to employer contributions to amortize the Unfunded Actuarial Accrued Liability and the recognition of current and prior year investment gains.
- The Net Pension Liability, provided in accordance with Governmental Accounting Standards Board Statement Number 67 (GASB Statement No. 67), was \$12.0 billion for the fiscal year ended June 30, 2019. This represents an increase of \$1.2 billion from June 30, 2018, when the liability was \$10.8 billion. As of June 30, 2019, the most recent measurement date, the Pension Plan's Fiduciary Net Position was 82.9 percent of the Total Pension Liability, a decrease from 84.0 percent as measured for the previous fiscal year ended 2018. This decrease was due to the growth in Total Pension Liability outpacing the growth in the Pension Plan's Fiduciary Net Position.

OVERVIEW OF FINANCIAL STATEMENTS

This MD&A serves as an introduction to the LACERA Basic Financial Statements, which include the following components: the Statement of Fiduciary Net Position; the Statement of Changes in Fiduciary Net Position; and the Notes to the Basic Financial Statements. The Basic Financial Statements are prepared in compliance with the accounting principles and reporting guidelines as set forth by the Governmental Accounting Standards Board (GASB), utilizing the accrual basis of accounting as prescribed by Generally Accepted Accounting Principles of the United States (GAAP). Separate statements are provided for the Pension Plan, OPEB Agency Fund, and OPEB Trust, which are distinct from each other and report the results of the annual financial activities within their respective presentations.

The *Statement of Fiduciary Net Position* is a snapshot of account balances at fiscal year-end. This statement reflects assets available for future payments to retirees and their beneficiaries, reduced by any current liabilities owed as of the report date. The Net Position Restricted for Benefits, which is the assets less the liabilities, or net position, reflects the funds available for future use.

The *Statement of Changes in Fiduciary Net Position* reflects all the financial transactions that occurred during the fiscal year and the impact of those additions and deductions had on the Net Position Restricted for Benefits. The additions versus deductions trend indicates the financial condition over time for, separately, the Pension Plan and the OPEB Trust.

The *Notes to the Basic Financial Statements* (Notes) are an integral part of the financial statements. The Notes provide a detailed discussion of key policies, programs, and activities that occurred during the year. Other information to supplement LACERA's Basic Financial Statements is provided as follows:

Required Supplementary Information (RSI) presents historical trend information based on GASB Statement No. 67 and contributes to the understanding of the changes in the Net Pension Liability of participating employers. There is some information provided to support compliance with GASB Statement No. 74 requirements under an Agent Plan.

Other Supplementary Information (OSI) includes the schedules of Administrative Expenses, Investment Expenses, Payments to Consultants, and the OPEB Agency Fund's Statement of Assets and Liabilities. The OSI is presented immediately following the RSI section of this CAFR.

Pension Plan

Under the California Constitution, the County Employees Retirement Law of 1937 (CERL), and the California Public Employees' Pension Reform Act of 2013 (PEPRA), LACERA administers a cost-sharing multiple employer defined benefit retirement plan (Pension Plan) for the employees of the County of Los Angeles (County), the Los Angeles Superior Court (Court), and four Outside Districts (i.e., Little Lake Cemetery District, Local Agency Formation Commission, Los Angeles County Office of Education, and South Coast Air Quality Management District). The Pension Plan is presented separately in the Statement of Fiduciary Net Position as an irrevocable trust fund. LACERA collects contributions from employers and active members and earns income on invested assets so the Pension Plan balances accumulate over the long term, such that promised benefits can be paid to retirees now and in future years.

Retiree Healthcare Benefits Program

In April 1982, the County adopted an ordinance pursuant to the County Employees Retirement Law of 1937 (CERL) that provided for a Retiree Healthcare Benefits Program (RHCBP), also referred to as the Other Post-Employment Benefits Program (OPEB Program) when including the death/burial benefits for retired employees and their eligible dependents. In 1982, the County and LACERA entered into an Agreement whereby LACERA would administer the RHCBP subject to the terms and conditions of the Agreement. In 1994, the County amended the Agreement so LACERA would continue to serve as the administrator even when there are changes to the active member insurance program.

In June 2014, the LACERA Board of Retirement approved the County's request to modify the agreement to create a new retiree healthcare benefits program in order to lower its costs. Structurally, the County segregated all the then current retirees and employees into LACERA-administered RHCBP (Tier 1) and placed all employees hired after June 30, 2014 into Los Angeles County RHCBP (Tier 2). Employees are eligible for RHCBP if they are members of LACERA and retire from the County of Los Angeles, the Superior Court, or a participating Outside District. The RHCBP offers members an extensive choice of medical plans as well as two dental/vision plans. The medical plans are either HMOs or indemnity plans,

and some are designed to work with Medicare benefits. Program benefits are provided through third party insurance carriers with the participant's cost for medical and dental/vision insurance varying according to the years of retirement service credit with LACERA, the plan selected, and the number of persons covered.

OPEB Agency Fund

The OPEB Agency Fund reflects the activity of the OPEB Program for all participating employers (i.e., County, Court, and LACERA), including those that have not yet established any advanced funding in the OPEB Trust (i.e., Outside Districts). The assets and liabilities related to OPEB operational activities are reported in this manner as the OPEB Agency Fund, which was established as a revocable fund. The funds received and payments made from the OPEB Agency Fund are presented as additions and deductions to the balances. Plan sponsors and members provide monthly funding using a "pay-as-you-go" methodology, which is used to pay healthcare premiums including administrative fees, as well as other healthcare benefits provided by the OPEB Program. LACERA acts as a custodian for these funds on behalf of the plan sponsors and participants. Since assets are retained in the OPEB Agency Fund instead of a qualifying trust, only assets and liabilities are reported to reflect that LACERA is holding these assets in an agency capacity.

OPEB Trust

Pursuant to the California Government Code, Los Angeles County established an irrevocable, tax-exempt OPEB Trust for the purpose of holding and investing assets to prefund the OPEB Program (or the retiree healthcare benefits program), which LACERA administers.

In May 2012, the County negotiated a Trust and Investment Services Agreement with the LACERA Board of Investments to manage and invest the OPEB Trust assets. The participating employers provide quarterly contributions and administrative costs are deducted from the County OPEB Trust. There are two participating employers in the County OPEB Trust: the County and LACERA. The Net Position Restricted for Benefits of the OPEB Trust is reported separately and legally distinct from that of the Pension Plan. Assets of the Pension Plan are not used to finance benefits provided for under the OPEB Program.

The Superior Court (Court) considered prefunding its OPEB obligations through a Court OPEB Trust to be effective and initially funded as of June 30, 2016. After discussions and negotiations between the County, the Court, and LACERA, it was determined that a separate OPEB Trust would be established for the Court. A Trust and Investment Services Agreement was negotiated between LACERA and the Court setting forth the terms under which the LACERA Board of Investments serves as Trustee of the Court OPEB Trust. The Court Agreement was submitted and approved by the Court's Judicial Council in April 2016 and executed in June 2016. Contributions are made on a discretionary basis at fiscal year end.

The County, LACERA, and the Court participate in the irrevocable OPEB Trust, which excludes the four Outside Districts. The purpose of this fund is for plan sponsors to set aside assets to offset the OPEB, or retiree healthcare benefits liability. The OPEB Trust is presented separately in the OPEB Trust's Statement of Fiduciary Net Position. The LACERA Board of Investments manages the OPEB Trust for the County, LACERA, and the Court, and utilizes an Investment Policy Statement to diversify investments based on the agencies' future obligations. The OPEB Trust's Net Position Restricted for Benefits at year-end serves as a funding gauge for paying future expenses associated with other post-employment benefits such as those provided through the OPEB Program. The OPEB Trust income and expenses are also presented separately in the OPEB Trust's Statement of Changes in Fiduciary Net Position.

FINANCIAL ANALYSIS — PENSION PLAN**Net Position Restricted for Benefits**

The Pension Plan's Total Net Position Restricted for Benefits represents funds available for future promised benefits. As of June 30, 2019, LACERA had Total Assets of \$61.4 billion which exceeded Total Liabilities of \$3.1 billion, resulting in a Net Position Restricted for Benefits of \$58.3 billion. This increase of \$2.0 billion or 3.5 percent from the prior year, was due primarily to favorable investment market performance. As of June 30, 2018, LACERA had \$59.4 billion of Total Assets which was greater than \$3.1 billion in Total Liabilities, resulting in \$56.3 billion in Net Position Restricted for Benefits.

Net Position Restricted for Benefits — Pension Plan

As of June 30, 2019, 2018, and 2017

(Dollars in Millions)

	2019	2018	2017	2019 - 2018 % Change	2018 - 2017 % Change
Investments	\$57,976	\$55,443	\$52,225	4.6 %	6.2 %
Other Assets	3,380	3,925	3,594	(13.9)%	9.2 %
Total Assets	\$61,356	\$59,368	\$55,819	3.3 %	6.4 %
Total Liabilities	(3,061)	(3,068)	(3,075)	(0.2)%	(0.2)%
Net Position Restricted for Benefits	\$58,295	\$56,300	\$52,744	3.5 %	6.7 %

Additions and Deductions to Net Position Restricted for Benefits

The primary sources that finance the promised pension benefits LACERA provides to members and their beneficiaries are the collection of employer and member retirement contributions and realized investment income. For fiscal years ended 2019 and 2018, Total Additions amounted to \$5.5 billion and \$6.8 billion, respectively, and were due primarily to LACERA's diverse investment strategy producing positive investment performance.

The net investment gain for fiscal year 2019 was \$3.2 billion, a decrease of \$1.5 billion from the 2018 fiscal year when the net investment gain was \$4.7 billion. This fiscal year's time-weighted investment returns of 6.4 percent (net of fees) is less than the actuarial assumed investment earnings rate of 7.25 percent. The investment gains and losses experienced will continue to impact the actuarial funded ratio over time as they are recognized in the future through the actuarial asset-smoothing process.

To finance employer contributions that are due to LACERA, the County and the Outside Districts made cash payments monthly or semi-monthly to coincide with the employee payroll cycle. For the fiscal years ended June 30, 2019 and 2018, the required employer contributions due to LACERA were paid in full.

The primary uses of LACERA's assets include the payment of the promised benefits to members and their beneficiaries, the refund of contributions to terminated employees, and the cost of administering the Pension Plan. These deductions totaled \$3.5 billion for fiscal year 2019, an increase of \$208 million or 6.3 percent from the prior year. The increase in deductions is partly attributable to an increase in the number of LACERA retirees and related increase in pension payments for the fiscal year ended June 30, 2019. Administrative and miscellaneous expenses increased 5.1 percent from the fiscal year ended 2018 to 2019 primarily due to the increase in organizational staffing and Memorandum of Understanding (MOU) negotiated salary increases. Additional staffing will allow LACERA to continue to serve the needs of its membership into the future.

Additions and Deductions in Fiduciary Net Position — Pension Plan*For the Fiscal Years Ended June 30, 2019, 2018, and 2017*

(Dollars in Millions)

	2019	2018	2017	2019 - 2018		2018 - 2017	
				Difference	% Change	Difference	% Change
Contributions	\$2,304	\$2,116	\$1,858	\$188	8.9%	\$258	13.9 %
Net Investment Income/(Loss)	3,181	4,722	6,136	(1,541)	(32.6)%	(1,414)	(23.0)%
Total Additions/(Declines)	\$5,485	\$6,838	\$7,994	(\$1,353)	(19.8)%	(\$1,156)	(14.5)%
Benefits and Refunds	(\$3,407)	(\$3,203)	(\$3,030)	(\$204)	6.4%	(\$173)	5.7 %
Administrative Expenses and Miscellaneous	(83)	(79)	(67)	(4)	5.1%	(12)	17.9 %
Total Deductions	(\$3,490)	(\$3,282)	(\$3,097)	(\$208)	6.3%	(\$185)	6.0 %
Net Increase/(Decrease)	\$1,995	\$3,556	\$4,897	(\$1,561)	(43.9)%	(\$1,341)	(27.4)%
Fiduciary Net Position Beginning of Year	56,300	52,744	47,847	3,556	6.7%	4,897	10.2 %
Fiduciary Net Position at End of Year	\$58,295	\$56,300	\$52,744	\$1,995	3.5%	\$3,556	6.7 %

Asset Allocation

Meketa Investment Group (Meketa), LACERA's general investment consultant, reviews the existing allocation structure on a regular basis to determine an appropriate allocation consistent with the economic environment, considering model assumptions and constraints. In September 2017, the LACERA Board of Investments approved Meketa's capital market assumptions and new asset allocation models which have more attractive return/risk quotients than the current portfolio and reflect greater diversification, potentially resulting in higher market performance throughout a full market cycle.

In April 2018, the LACERA Board of Investments approved the use of a "functional" framework for the inclusion of a broader group of Pension Trust investments. The traditional asset classes were reassigned and expanded in these new functional asset categories, labeled as Growth, Credit, Real Assets and Inflation Hedges, and Risk Reduction and Mitigation.

During fiscal year 2019, LACERA staff worked together internally and closely with its external service providers to transition the new functional asset allocation strategy. By June 30, 2019, the new model was implemented having completed the re-categorization of Pension Trust assets, repositioned assets where necessary, and updated communications to the LACERA Board of Investments pertinent to the new strategy. This CAFR provides financial accounting information in the Basic Financial Statements and Notes to the Financial Statements in the Financial Section using traditional asset categories such as equity, fixed income, private equity, real estate and hedge funds. The Investment Section provides investment portfolio information using the new functional investment asset categories and classifications.

Pension Liabilities

As GASB Statement No. 67 requires, LACERA reports the Total Pension Liability and the Net Pension Liability as calculated by LACERA's actuary. These liabilities, which are the employers' responsibilities, are solely calculated for financial reporting purposes and are *not* intended to provide information about the employers' funding of such liabilities. The actuarial valuation of retirement benefits report provides the Pension Plan funded status and required contributions. The Total Pension Liability as of June 30,

2019, was \$70.3 billion or an increase of 4.8 percent from the Total Pension Liability of \$67.1 billion as of June 30, 2018. The Net Pension Liability as of June 30, 2019, was \$12.0 billion, representing an increase of 11.7 percent from the Net Pension Liability of \$10.8 billion as of June 30, 2018. The Net Pension Liability increased by \$1.3 billion because LACERA experienced a \$3.3 billion increase in Total Pension Liability which is offset by a \$2.0 billion increase in the Fiduciary Net Position.

GASB Statement No. 67 requires the presentation of the Fiduciary Net Position as a percentage of the Total Pension Liability. For the fiscal years ended June 30, 2019 and 2018, the Fiduciary Net Position as a percentage of the Total Pension Liability is reported as 82.9 percent and 84.0 percent, respectively. This slight decrease is due to an offsetting effect of growth in the Total Pension Liability of \$3.3 billion compared to a smaller increase in LACERA's Fiduciary Net Position of \$2.0 billion.

Net Pension Liability

As of June 30, 2019, 2018, and 2017

(Dollars in Millions)

	2019	2018	2017	2019 - 2018		2018 - 2017	
				\$ Change	% Change	\$ Change	% Change
Total Pension Liability	\$70,309	\$67,057	\$64,032	\$3,252	4.8%	\$3,025	4.7%
Less: Fiduciary Net Position	(58,295)	(56,300)	(52,744)	(1,995)	3.5%	(3,556)	6.7%
Net Pension Liability	\$12,014	\$10,757	\$11,288	\$1,257	11.7%	(\$531)	(4.7)%
Fiduciary Net Position as a Percentage of Total Pension Liability	82.9%	84.0%	82.4%	N/A	N/A	N/A	N/A

FINANCIAL ANALYSIS – OPEB TRUST

As reflected in the Statement of Changes in Fiduciary Net Position, OPEB Trust additions included net investment income of \$62.1 million and deductions of \$0.2 million for total administrative expenses, as well as payments of custodial and investment management fees. The OPEB Trust's total Net Position Restricted for Benefits as of the fiscal year ended June 30, 2019, was \$1.2 billion. As of June 30, 2018, the total OPEB Trust Net Position Restricted for Benefits was \$941 million, after earning \$78.7 million in net investment income and deducting \$0.2 million for total administrative expenses.

Employers provided OPEB Trust pre-funding contributions of \$236 million for fiscal year 2019 which was a 91.9% increase from \$123 million for fiscal year 2018. GASB Statement No. 74 requires the Statement of Changes in Fiduciary Net Position for the OPEB Trust include an adjustment for pay-as-you-go additions to Fiduciary Net Position as OPEB payments become due that would not be reimbursed to the employers using OPEB Trust assets. Correspondingly, Service Benefits included as deductions were increased to reflect all benefit payments by employers as OPEB became due. Total OPEB Trust contributions including this adjustment was \$863 million for fiscal year 2019 and \$707 million for fiscal year 2018.

Investment Structure

In June 2016, the LACERA Board of Investments approved the use of a unitized fund structure for the investment of the County and Court OPEB Trust funds. This structure created an OPEB Master Trust allowing for unitization of investments at the asset composite level while retaining individual net asset

values for each participating employer. The OPEB Master Trust accommodates commingling and co-investing of the County and Court OPEB Trust funds. LACERA and its custodian completed the implementation process. The OPEB Master Trust is commonly referred to as the OPEB Trust throughout this CAFR and includes both the County and Court OPEB Trust investments. In December 2017, the LACERA Board of Investments adopted an asset allocation model including functional asset categories such as global equity, credit, risk reduction and mitigation, and inflation hedges. This new diversified strategy was implemented by the fiscal year ended June 30, 2018.

Information related to the OPEB Trust is included in the Financial Section, Note Q and other CAFR sections to meet financial reporting requirements. Due to the change to an agent plan structure, in accordance with GASB Statement No. 74, LACERA's financial statements have been updated to report limited information about the OPEB Program's Net OPEB Liability, previously reported under a cost sharing model. Refer to Note R for additional information.

PLAN ADMINISTRATION

LACERA Membership

The following table provides comparative LACERA membership data for the last two fiscal years. The County hired 871 new employees for the fiscal year ended June 30, 2019, as evidenced by the 0.8 percent increase in active members from the prior year. There was an increase of 1,621 or 2.5 percent in new retirees when comparing the two fiscal years ended June 30, 2019 and 2018.

LACERA Membership

As of June 30, 2019 and 2018

	2019	2018	2019 Difference	2018 % Change
Active Members	107,814	106,943	871	0.8%
Retired Members	66,502	64,881	1,621	2.5%
Total Membership	174,316	171,824	2,492	1.5%

ADMINISTRATIVE EXPENSES

The LACERA Boards of Retirement and Investments jointly approve the annual operating budget, which controls administrative expenses and represents approximately 0.14 percent of the Net Position Restricted for Benefits for both fiscal years ended June 30, 2019 and 2018, respectively.

The CERL governing the LACERA Pension Plan requires the annual budget for administrative expenses may not exceed twenty-one hundredths of one percent (0.21 percent) of the Actuarial Accrued Liability (AAL) as of the prior fiscal year. CERL provides allowances for other administrative costs such as legal representation and expenditures for information technology projects; LACERA includes such costs in the administrative expense allocation.

The table below provides a comparison of the actual administrative expenses for the fiscal years ended 2019 and 2018. The AAL was used to calculate the statutory budget amount. For both years, LACERA's administrative expenditures were well below the limit imposed by law.

Budget-to-Actual Analysis of Administrative Expenses*As of June 30, 2019 and 2018*

(Dollars in Thousands)

	2019	2018
Administrative Expenses	\$82,906	\$78,181
Basis for Budget Calculation (Actuarial Accrued Liability)	65,310,803	62,199,214
Administrative Expenses as a Percentage of the Basis for Budget Calculation	0.13%	0.13%
Administrative Expense Budget Limit per CERL	0.21%	0.21%
Net Position Restricted for Benefits	\$58,294,836	\$56,299,982
Administrative Expenses as a Percentage of Net Position Restricted for Benefits	0.14%	0.14%

ACTUARIAL FUNDING VALUATIONS

In order to determine whether the Net Position Restricted for Benefits will be sufficient to meet the Pension Plan's future obligations, the actuarial funded status needs to be calculated. An actuarial valuation is similar to an inventory process. On the valuation date, the assets available for the payment of promised benefits are appraised. These assets are compared with the actuarial liabilities, which represent the actuarial present value of all future benefits expected to be paid for each member. The purpose of the valuation is to determine what future contributions by the employers (plan sponsors) and the employees (members) are needed to pay all promised future benefits. A valuation is performed each year. An experience study is performed every three years to review the assumptions used in preparing the annual valuations.

Board Policy

In December 2009, the LACERA Board of Investments adopted a revised Retirement Benefit Funding Policy (Funding Policy). In February 2013, the Funding Policy was further amended to conform to the new PEPPA provisions. In addition, beginning with the June 30, 2012 valuation and on a prospective basis, the LACERA Board of Investments approved inclusion of the Supplemental Targeted Adjustment for Retirees (STAR) Reserve balance in valuation assets. As such, the actuary includes the STAR Reserve as part of actuarial assets available for funding retirement benefits.

Provisions in the Funding Policy impacted the 2016 valuation, including the implementation of a smoothing calculation on actuarial gains and losses. This smoothing process recognizes an equal proportion of each year's investment gains and losses over a five-year period in order to minimize substantial variations in funding ratios. Variances between the actual market value and the actuarially computed expected market value from investment performance at the actuarially determined assumed rate of return are smoothed or recognized over a five-year period.

Liabilities

The consulting actuary calculates contributions required to fund the Pension Plan. The difference between the present value of all future obligations and the present value of future normal cost contributions is referred to as the Actuarial Accrued Liability (AAL). The AAL is then compared to the value of assets available to fund benefits, and the difference is referred to as the Unfunded Actuarial Accrued Liability (UAAL). The Funding Policy provides an approach for managing the UAAL. LACERA utilizes what is referred to as a closed 30-year layered amortization method. For each fiscal year, gains

or losses on the UAAL are calculated and then amortized over the 30-year period defined. A new layer is added each year. This process establishes a payoff schedule of the UAAL and helps dampen volatility in the required amortization payments which, in turn, provides some volatility mitigation in employer contribution rates.

Assumptions

In December 2016, as a result of the most recent experience and assumption study completed as of June 30, 2016, the LACERA Board of Investments adopted a decrease in the investment return and other economic assumptions. The investment return assumption was reduced from 7.50 to 7.25 percent for the June 30, 2016 actuarial valuation. The LACERA Board of Investments adopted corresponding decreases in the price and wage inflation assumptions to be made at the same time as each decrease in the investment return assumption.

The funded ratio is a measurement of the funded status of the Pension Plan. It is calculated by dividing the Valuation Assets by the AAL. Valuation Assets are the value of cash, investments, and other assets belonging to the Pension Plan, as used by the actuary for the purpose of preparing the actuarial valuation. Positive investment returns, which have varied over the last three years, typically increase Valuation Assets. In 2016, the LACERA Board of Investments reduced the assumed rate of return (as described above and in the Actuarial Section of this CAFR). As a result of applying actuarial asset smoothing, the actuarial funded ratio increased from fiscal year ended 2017 to 2018.

FUNDED RATIO, RATES OF RETURN, AND FAIR VALUE

LACERA's independent consulting actuary, Milliman, performed the latest actuarial valuation as of June 30, 2018 and determined that the Pension Plan's Funded Ratio of the actuarial assets to the AAL increased to 80.6 percent, as compared to 79.9 percent as of the June 30, 2017 valuation.

The positive 9.0 percent investment return on a market basis for 2018, which exceeded the actuarial assumed investment earnings rate, resulted in a 0.7 percent increase in the Funded Ratio when applying the five-year actuarial asset smoothing method. For the 2018 and 2017 fiscal year end valuations, respectively, the Pension Plan returned 9.0 percent and 12.7 percent (both net of fees), on a market basis, which were both greater than the assumed rate of 7.25 percent in 2018 and 2017. In total, there was an \$858 million gain on market assets relative to the assumed rate of return. Under the actuarial asset method, which recognizes investment gains and losses over a five-year period, the return on actuarial assets was 8.1 percent for the fiscal year ended June 30, 2018, equivalent to a gain of \$411 million relative to the assumed return.

The table below provides a three-year history of investment and actuarial returns and the actuarial funded ratios. As required by GASB Statement Nos. 67 and 74, the money-weighted rate of return is presented as an expression of investment performance, net of investment expense, adjusted for the changing amounts actually invested. For the year ended June 30, 2019, the annual money-weighted rate of return on Pension Plan investments was 5.5 percent (net of fees).

Total Investment Rates of Return — Pension Plan*For the Last Three Fiscal Years Ended June 30*

(Dollars in Thousands)

Fiscal Year End	Total Investment Portfolio Fair Value	Total Fund Time-Weighted Return (net of fees)¹	Total Fund Money-Weighted Return (net of fees)	Return on Smoothed Valuation Assets (net of fees)²	Actuarial Assumed Rate of Return	Actuarial Funded Ratio
2017	\$52,225,457	12.7%	12.7%	8.2%	7.25%	79.9%
2018	55,443,060	9.0%	9.0%	8.1%	7.25%	80.6%
2019³	57,976,436	6.4%	5.5%	—	—	—

⁽¹⁾ The returns are presented net of investment management fees.⁽²⁾ Returns calculated using the money-weighted rate of return method.⁽³⁾ Actuarial valuation report for June 30, 2019 not available at CAFR publication.

The annual money-weighted rate of return on OPEB Trust investments, net of OPEB Trust investment expenses as of the fiscal years ended June 30, 2019 and 2018, were 6.0 percent and 10.0 percent, respectively. As determined for the July 1, 2018 OPEB valuation, the OPEB Program's Funded Ratio of the actuarial assets to the AAL increased to 4.5 percent, as compared to 2.8 percent reported in the July 1, 2017 valuation. The County, Superior Court, and LACERA continued to provide OPEB Trust contributions, which increased prefunding assets and offset the AAL.

NEW ACCOUNTING AND FINANCIAL REPORTING STANDARDS**LACERA OPEB Agency Fund Reporting**

GASB Statement No. 84, *Fiduciary Activities*, establishes criteria for identifying all fiduciary activities for state and local government accounting and financial reporting purposes. The principal objective is to enhance the consistency and comparability of fiduciary activity reporting by state and local governments and improve the usefulness of fiduciary activity information for assessing the accountability of governments in their roles as fiduciaries. An activity meeting the criteria should be reported by a Fiduciary Fund in the Basic Financial Statements and present a Statement of Fiduciary Net Position and a Statement of Changes in Fiduciary Net Position. This new financial reporting provision is effective for the fiscal year ending June 30, 2020 in LACERA's financial statements and requires updates to use the new OPEB Custodial Fund terminology, remove the Statement of Changes in Assets and Liabilities — OPEB Agency Fund found in Other Supplementary Information, and instead report the additions, deductions, and net position of the fiduciary activity in a new statement, the Statement of Changes in Fiduciary Net Position, which was previously not reported.

Leases

The GASB issued Statement No. 87, *Leases*, to increase the usefulness of governments' financial statements by requiring reporting of certain lease liabilities that currently are not reported. The new information will enhance comparability of financial statements among governments by requiring lessees and lessors to report leases under a single model. This statement will also enhance the decision-usefulness of the information provided to financial statement users by requiring notes to the financial statements including the timing, significance, and purpose of a government's leasing arrangements. For LACERA's financial statements, these requirements are effective for the fiscal year ending June 30, 2021.

REQUESTS FOR INFORMATION

This comprehensive financial report is designed to provide the LACERA Boards of Retirement and Investments, our membership, and interested third parties with a general overview of LACERA's finances and to show accountability for the funds it receives and its management of the Pension Plan and OPEB Program it administers.

Address questions regarding this report and/or requests for additional financial information to:

Chief Financial Officer
LACERA
300 N. Lake Avenue, Suite 650
Pasadena, CA 91101

Respectfully submitted,

Beulah S. Auten

Beulah S. Auten, CPA, CGFM, CGMA
Chief Financial Officer

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Statement of Fiduciary Net Position*As of June 30, 2019 and 2018*

(Dollars in Thousands)

	2019			2018		
	Pension Plan	OPEB Trust	OPEB Agency Fund	Pension Plan	OPEB Trust	OPEB Agency Fund
Assets						
Cash and Short-Term Investments	\$1,310,027	\$14,491	\$46,617	\$1,786,940	\$14,150	\$80,915
Cash Collateral on Loaned Securities	814,829	—	—	1,191,235	—	—
Receivables						
Contribution Receivable	\$96,482	\$—	\$—	\$89,181	\$—	\$—
Accounts Receivable - Sale of Investment	1,046,945	13	1,451	707,665	—	—
Accrued Interest and Dividends	102,714	136	540	102,733	132	454
Accounts Receivable - Other	8,335	—	55,845	47,090	—	52,611
Total Receivables	\$1,254,476	\$149	\$57,836	\$946,669	\$132	\$53,065
Investments at Fair Value						
Equity	\$25,836,066	\$624,039	\$—	\$25,661,003	\$456,824	\$—
Fixed Income	18,028,747	479,773	118,687	15,934,587	372,962	107,394
Private Equity	6,028,265	—	—	5,929,098	—	—
Real Estate	6,192,619	120,247	—	6,326,246	97,073	—
Hedge Funds	1,890,739	—	—	1,592,126	—	—
Total Investments at Fair Value	\$57,976,436	\$1,224,059	\$118,687	\$55,443,060	\$926,859	\$107,394
Total Assets	\$61,355,768	\$1,238,699	\$223,140	\$59,367,904	\$941,141	\$241,374
Liabilities						
Accounts Payable - Purchase of Investments	\$2,162,819	\$—	\$3,050	\$1,803,897	\$—	\$14
Retiree Payable and Other	922	—	235	912	—	179
Accrued Expenses	44,518	222	343	35,831	134	209
Tax Withholding Payable	35,505	—	—	32,848	—	—
Obligations under Securities Lending Program	814,829	—	—	1,191,235	—	—
Accounts Payable - Other	2,339	—	86,780	3,199	—	121,450
Due to Employers	—	—	132,732	—	—	119,522
Total Liabilities	\$3,060,932	\$222	\$223,140	\$3,067,922	\$134	\$241,374
Fiduciary Net Position Restricted for Benefits	\$58,294,836	\$1,238,477	\$—	\$56,299,982	\$941,007	\$—

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

Statement of Changes in Fiduciary Net Position
For the Fiscal Years Ended June 30, 2019 and 2018
(Dollars in Thousands)

	2019		2018	
	Pension Plan	OPEB Trust	Pension Plan	OPEB Trust
Additions				
Contributions				
Employer ¹	\$1,668,151	\$863,028	\$1,524,823	\$706,709
Member	635,415	—	591,262	—
Total Contributions	\$2,303,566	\$863,028	\$2,116,085	\$706,709
Investment Income				
From Investing Activities:				
Net Appreciation/(Depreciation) in Fair Value of Investments	\$1,215,625	\$56,670	\$974,529	\$15,991
Investment Income/(Loss)	2,188,736	6,188	3,925,181	63,235
Total Investing Activity Income	\$3,404,361	\$62,858	\$4,899,710	\$79,226
Less Expenses from Investing Activities	(\$233,126)	(\$742)	(\$188,753)	(\$480)
Net Investing Activity Income	\$3,171,235	\$62,116	\$4,710,957	\$78,746
From Securities Lending Activities:				
Securities Lending Income	\$26,146	\$—	\$18,796	\$—
Less Expenses from Securities Lending Activities:				
Borrower Rebates	(\$20,545)	\$—	(\$11,787)	\$—
Management Fees	(1,113)	—	(1,326)	—
Total Expenses from Securities Lending Activities	(21,658)	—	(13,113)	—
Net Securities Lending Income	\$4,488	\$—	\$5,683	\$—
Total Net Investment Income	\$3,175,723	\$62,116	\$4,716,640	\$78,746
Miscellaneous	\$5,958	\$—	\$5,613	\$—
Total Additions	\$5,485,247	\$925,144	\$6,838,338	\$785,455
Deductions				
Retiree Payroll	\$3,375,752	\$—	\$3,177,726	\$—
Service Benefits ¹	—	627,415	—	583,406
Administrative Expenses	82,906	234	78,181	190
Refunds	28,691	—	23,221	—
Lump Sum Death Benefits	2,711	—	2,428	—
Redemptions	—	25	—	3,735
Miscellaneous	333	—	451	—
Total Deductions	\$3,490,393	\$627,674	\$3,282,007	\$587,331
Net Increase/(Decrease) in Fiduciary Net Position	\$1,994,854	\$297,470	\$3,556,331	\$198,124
Fiduciary Net Position Restricted for Benefits				
Beginning of Year	\$56,299,982	\$941,007	\$52,743,651	\$742,883
End of Year	\$58,294,836	\$1,238,477	\$56,299,982	\$941,007

⁽¹⁾ Employer Contributions are adjusted to reflect pre-funded contributions made to the OPEB Trust as well as additions to Fiduciary Net Position including amounts for OPEB, as the benefits become due that would be unreimbursed to the employers using OPEB Trust assets. Correspondingly, Service Benefits amounts were increased to reflect all benefit payments made through the OPEB Trust or by employers as OPEB payments became due (paragraphs 28a and 31 of GASB Statement No.74). See Note Q for OPEB Trust contributions.

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

NOTE A — Plan Description

The Los Angeles County Employees Retirement Association (LACERA) was established on January 1, 1938. It is governed by the California Constitution, the County Employees Retirement Law of 1937 (CERL), the California Public Employees' Pension Reform Act of 2013 (PEPRA), and the regulations, procedures, and policies adopted by the LACERA Board of Retirement and the LACERA Board of Investments. The Los Angeles County (County) Board of Supervisors may also adopt resolutions, as permitted by CERL, which may affect the benefits of LACERA members. LACERA operates as a cost-sharing multiple-employer defined benefit Pension Plan for Los Angeles County, LACERA and the Los Angeles Superior Court, plus four Outside Districts: Little Lake Cemetery District, Local Agency Formation Commission, Los Angeles County Office of Education, and South Coast Air Quality Management District.

LACERA also administers a retiree healthcare program, which is also referred to as the Other Post-Employment Benefits (OPEB) Program. The OPEB Program is an agent defined benefit OPEB plan in which Los Angeles County, LACERA, Superior Court, and the Outside Districts participate. OPEB Program description and benefit provisions are explained in Note N — OPEB Program of the Financial Section.

Governance

The LACERA Board of Retirement is responsible for the administration of the retirement system, the OPEB Program, and the review and processing of disability retirement applications. The Board is composed of nine Members, plus two alternate members. Six Members are elected: Two are elected by active general members; retired members elect one Member and one alternate Member; safety members elect one Member and one alternate Member. Four Members are appointed by the Los Angeles County Board of Supervisors. The law requires the County Treasurer and Tax Collector to serve as an Ex Officio Member.

The LACERA Board of Investments is responsible for establishing LACERA's investment policy and objectives, as well as exercising authority and control over the investment management of the Trust Funds. The Board is composed of nine Members. Four Members are elected: two are elected by active general members; retired members elect one Member, as do safety members. Four Members are appointed by the Los Angeles County Board of Supervisors, who are required as a condition of appointment to have significant prior experience in institutional investing. The law requires the County Treasurer and Tax Collector to serve as an Ex Officio Member.

Membership

LACERA provides retirement, disability, and death benefits to its active safety and general members and administers the plan sponsors' Retiree Healthcare Benefits (or OPEB) Program. Safety membership includes law enforcement (Sheriff and District Attorney Investigators), firefighting, forester, and lifeguard classifications. General membership is applicable to all other occupational classifications. The retirement benefits within the Pension Plan are tiered based on the date of LACERA membership. Additional information regarding the benefit structure is available by contacting LACERA.

LACERA Pension Plan Membership*As of June 30, 2019 and 2018*

	2019	2018
Active Members		
Vested	72,660	72,020
Non-Vested	26,536	26,464
Terminated Vested (Deferred)	8,618	8,459
Total Active Members	107,814	106,943
Retired Members		
Service	47,518	46,296
Disability	9,891	9,707
Survivors	9,093	8,878
Total Retired Members	66,502	64,881
Total Membership	174,316	171,824

Investments

Pension Plan: Assets in the Pension Plan are derived from three sources: employer contributions; employee contributions (including those made by the employer on behalf of employees pursuant to §414 (h)(2) of the Internal Revenue Code); and realized investment earnings. Assets of the Pension Plan are held separate from any other assets, including the separate OPEB Trust and OPEB Agency Fund, and are invested pursuant to policies and procedures adopted by the LACERA Board of Investments. Pension Plan gross income is exempt from federal income taxation under §115 of the Internal Revenue Code.

OPEB Trust: The County and LACERA, as participating employers, established an OPEB Trust for the purpose of holding and investing assets to pre-fund the Retiree Healthcare Benefits Program administered by LACERA for eligible retired members and eligible dependents and survivors of LACERA members. The Superior Court also started making OPEB pre-funding contributions into the Court OPEB Trust as of June 2016. The OPEB Trusts do not modify the participating employer benefit programs. The assets held within the OPEB Trusts meet the definition of a qualifying trust under GASB 74 and are administered under an agent plan structure effective July 1, 2018.

The County and Superior Court entered into separate Trust and Investment Services Agreements with the LACERA Board of Investments to serve as Trustee with sole and exclusive authority, control over, and responsibility for directing the investment and management of the respective employers' OPEB Trust assets. The County and Court OPEB Trust documentation and structure are substantively similar. The LACERA Board of Investments serves as Trustee for the two OPEB Trusts, exercising similar authority for each employer's OPEB Trust assets. The two trusts are collectively referred to as the OPEB Trust throughout the financial statements and note disclosures except in the Investment Section where they are labeled as the OPEB Master Trust.

The LACERA Board of Investments adopted an Investment Policy Statement establishing the initial asset allocation for the purpose of effectively managing and monitoring the assets of the OPEB Trust. Contributions and transfers to the OPEB Trust are determined at the employer's discretion.

The LACERA Board of Investments approved formation of an OPEB Master Trust for the purpose of commingling funds of the County OPEB Trust and the Court OPEB Trust for investment purposes. The

OPEB Master Trust Declaration was made on July 13, 2016. The LACERA Board of Investments serves as Trustee of the Master Trust assets. Gross income from all OPEB Trusts above is exempt from federal income taxation under §115 of the Internal Revenue Code (IRC). LACERA obtained letter rulings from the Internal Revenue Service to this effect.

OPEB Agency Fund: The County, the Superior Court, LACERA and participating Outside District employers provide a health insurance program and death benefits (OPEB Program) for retired employees and their dependents, which LACERA administers. Pursuant to an administrative agreement between the County and LACERA, and certain County ordinances, the County subsidizes, either in whole or in part, insurance premiums covering certain program participants who meet service credit hurdles.

LACERA maintains two investment accounts under the OPEB Agency Fund: the OPEB Operating Account and OPEB Reserve Account. The County, Superior Court, LACERA and participating Outside District employers provide monthly contributions to fund benefits and own the funds in these accounts, which LACERA reports and invests in cash and fixed income securities, separately from Pension Plan assets and OPEB Trust funds. The funds held within the OPEB agency investment accounts do not meet the definition of a qualifying OPEB Trust under GASB 74 and are not used to reduce the employers' Total OPEB Liability. External managers invest funds in both accounts pursuant to policies and procedures approved by the LACERA Board of Investments. In addition, investment income realized in these types of accounts maintained by government entities generally is exempt from federal income taxation under §115 of the Internal Revenue Code.

OPEB Operating Account: This account is primarily used to fund the OPEB Program's operations. Additions include the monthly insurance subsidy collected from the County, insurance premiums collected from LACERA, Superior Court, and the Outside Districts, payments from program participants, and interest income. Deductions include premium payments to insurance carriers and Program administrative expenses.

OPEB Reserve Account: This account was established to help stabilize premium rates over time. Annual surpluses and deficits for the various insurance plans result from the difference between premiums received and the healthcare costs incurred. The accumulated surplus is held in this account to address deficits and/or emergency premiums. Additions include rebates from insurance carriers and other income. Deductions include management fees and County-authorized payments to offset waived premium costs (i.e., insurance premium holidays) for both the County and affected participants. In 2013, the LACERA Board of Retirement adopted a policy that established a reserve account balance target of 20 percent of the total annual premium cost by plan for indemnity medical and dental/vision plans.

Benefit Provisions

Retirement benefit vesting occurs when a member accumulates five years of creditable service under contributory plans or accumulates 10 years of creditable service under the general service non-contributory plan. Depending on the plan, benefits, according to applicable statutory formula, are based upon 12 or 36 months of average compensation, age at retirement, and length of service as of the retirement date. Vested members who terminate employment before retirement age are considered terminated vested (deferred) members. Service-connected disability benefits may be granted regardless of length of service. Five years of service are required for nonservice-connected disability eligibility according to applicable statutory formula. Members of the non-contributory plan, who are covered under separate long-term disability provisions not administered by LACERA, are not eligible for disability benefits provided by LACERA. A Summary of Major Program Provisions for the Pension Plan is available upon request from LACERA. OPEB Program provisions are explained in the Note N — OPEB Program.

Cost-of-Living Adjustment (COLA)

Each year, the LACERA Board of Retirement considers how the change in the cost of living, a measure of inflation, has affected the purchasing power of monthly pension allowances paid by LACERA. The cost of living is measured by the Bureau of Labor Statistics, which releases the Consumer Price Index (CPI) for all Urban Consumers in the Los Angeles-Long Beach-Anaheim area as of January 1 each year. The difference in the current and previous year's CPI shows whether the cost of living has increased or decreased in this geographic region during the past year.

If the CPI has increased, the LACERA Board of Retirement grants a Cost-of-Living Adjustment (COLA) increase for monthly allowances. If the CPI has decreased, it is possible for the LACERA Board of Retirement to decrease monthly allowances; however, a decrease in allowances has never occurred. In any event, a cost-of-living decrease could not reduce a member's allowance to an amount less than the allowance received at the time of retirement.

LACERA members may receive more than one type of COLA:

COLA ("April 1st COLA")

The COLA percentage increase is effective annually on April 1. Members who retire prior to April 1, or eligible survivors of members who died prior to April 1, are eligible for that year's COLA increase. The increase begins with the April 30 monthly allowance. The COLA provision was added to CERL in 1966, and LACERA's first COLA increase was granted July 1, 1967. Until 2002, only contributory members were eligible for COLA.

Plan E COLA

Effective June 4, 2002, Plan E members and their survivors are also eligible for a COLA. The portion of the COLA percentage received by each Plan E member is a ratio of the member's service credit earned on and after June 4, 2002, to total service credit. The portion of the full increase not awarded may be purchased by the member.

Supplemental Targeted Adjustment for Retirees (STAR) Program

In addition to cost-of-living increases, the CERL also provides the LACERA Board of Retirement the authority to grant supplemental cost-of-living increases for pensions. Under this program, known as the STAR Program, excess earnings have been used to restore retirement allowances to 80 percent of the purchasing power held by retirees at the time of retirement. STAR applies to contributory plans only. Retirees and survivors whose allowances have lost more than 20 percent of their purchasing power are eligible for STAR. The STAR percentage increase is effective annually on January 1.

Future ad hoc increases in the current STAR Program will be subject to approval by the LACERA Board of Retirement on an annual basis, provided sufficient excess earnings are available as determined by the LACERA Board of Investments. Permanent STAR benefits become part of the member's retirement allowance and are payable for life. Ad hoc STAR benefits are payable only for the calendar year approved.

Except for Program Year 2005, the LACERA Board of Retirement made permanent the 2001 through 2009 STAR benefits at an 80 percent level as authorized in the CERL. For Program Years 2010 through 2019, STAR benefits were not provided due to minimal increases in the CPI percentage such that all eligible members had COLA Accumulation accounts below the 20 percent threshold for providing STAR benefits.

From the inception of the STAR Program in 1990 to the present, the STAR Program has received \$1.5 billion in funding. Except for Program Years 2005, the LACERA Board of Retirement made permanent the 2001 through 2009 STAR benefits, which totaled \$353 million. STAR Program costs reduced the

STAR Program reserve by \$556 million. As of June 30, 2019, there is \$614 million available in the STAR Program reserve to fund future benefits.

The STAR Program is administered on a calendar-year basis. The Statistical Section contains a 10-year trend schedule of STAR Program costs.

NOTE B — Summary of Significant Accounting Policies

Reporting Entity

LACERA, with its own two governing Boards, is an independent governmental entity separate and distinct from the County of Los Angeles (County). Due to the nature of the relationship between LACERA and the County, LACERA's Pension Plan and OPEB Trust funds are reflected as fiduciary funds within the County's basic financial statements. LACERA's operations are heavily dependent upon County funding, and the operational results are advantageous to the County, as well as LACERA members. Maintaining appropriate controls and preparing the financial statements are the responsibility of LACERA Management. LACERA's Audit Committee assists the LACERA Boards of Retirement and Investments (Boards) in fulfilling their fiduciary oversight responsibilities for the organization's financial reporting process, the system of internal controls, the audit processes, and the organization's method for monitoring compliance with laws and regulations.

Method of Reporting

LACERA follows the accounting principles generally accepted in the United States of America (GAAP) as applicable to governmental units. Accounting and financial reporting pronouncements which guide LACERA are promulgated by the Governmental Accounting Standards Board (GASB).

The financial statements are prepared using the accrual basis of accounting to reflect LACERA's overall operations. Revenue is recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of related cash flows. Member and employer contributions are recognized in the period in which the contributions are due, pursuant to legal requirements. Benefits and refunds are recognized when due and payable in accordance with the terms of each benefit plan.

Capital Assets (Including Intangible Assets)

Capital Assets are items that benefit the organization for more than one fiscal year. LACERA's potential Capital Assets are largely held in information technology systems. The information technology environment is continuously changing causing frequent upgrades and as such, LACERA treats these items as expenses, as they are immaterial to LACERA's overall financial statements. Management reviewed and considered all expenses that could be capitalized as capital or intangible assets and determined these items to be appropriately classified as expenses for the current fiscal year.

Accrued Vacation and Sick Leave

Employees who terminate or retire from active employment are entitled to full compensation for all unused vacation and a percentage of their unused sick leave. The accrued vacation and sick leave balances for LACERA employees as of June 30, 2019 and 2018, were \$3.7 million and \$3.5 million, respectively.

Cash and Short-Term Securities

Cash includes deposits with various financial institutions, the County, and non-U.S. currency holdings translated to U.S. dollars using the exchange rates in effect at June 30, 2019 and 2018.

LACERA classifies fixed income securities with a maturity of 12 months or less as short-term investments. Foreign exchange contracts held in pending status are also included in the category.

Real Estate Separate Account Investments

LACERA's real estate investments utilize several different types of Special Purpose Entities (SPEs), including Title Holding Corporations (THCs) and Limited Liability Companies (LLCs). The THCs are nonprofit corporations under §501(c)(25) and §501(c)(2) of the Internal Revenue Code (IRC). The LLCs do not have tax-exempt status, but their income is excludable from taxation under IRC §115. Both THCs

and LLCs invest in real estate assets located throughout the United States. Under GASB Statement No. 72, *Fair Value Measurement and Application*, the THC's and LLCs meet GASB's definition of an investment and therefore are included in the accompanying financial statements as investments at fair value.

Fair Value

Investments are carried at fair value. Fair values for investments are derived by various methods, as indicated in the following chart:

Investments	Source
Publicly Traded Securities, such as stocks and bonds. Bonds include obligations of the U.S. Treasury, U.S. agencies, non-U.S. governments, and both U.S. and non-U.S. corporations. Also included are mortgage-backed securities and asset-backed securities.	Valuations are provided by LACERA's custodian based on end-of-day prices from external pricing vendors. Non-U.S. securities reflect currency exchange rates in effect at June 30, 2019 and 2018.
Whole Loan Mortgages	For the LACERA Member Home Loan Program, valuation is performed by LACERA staff based on loan information provided by Ocwen Financial Corporation, the program's mortgage servicer, with fair market value adjustments based on the market returns of the Bloomberg Barclays mortgage-backed securities index.
Real Estate Equity Commingled Funds ¹	Fair value as provided by real estate fund managers, based on review of cash flow, exit capitalization rates, and market trends; fund managers commonly subject each property to independent third-party appraisal annually. Investments under development are carried at cumulative cost until developed.
Real Estate: Special Purpose Entities, including Title Holding Corporations and Limited Liability Companies	Fair value of the investment as provided by investment managers. Each property is subject to independent third-party appraisals every three years.
Real Estate Debt Investments	Fair value for real estate debt investments as provided by investment managers.
Private Equity ¹	Fair value provided by investment managers as follows: Private investments — valued by the General Partner giving consideration to financial condition and operating results of the portfolio companies, nature of investment, marketability, and other factors deemed relevant. Public investments — valued based on quoted market prices, less a discount, if appropriate, for restricted securities. Fair values are reviewed by LACERA's private equity consultant.

Investments	Source
Public Market Equity and Fixed Income Investments held in Institutional Commingled Fund/Partnership¹	Fair value is typically provided by third-party fund administrator, who performs this service for the fund manager.
Derivatives	Over-the-counter derivatives (other than currency forwards) valuations are provided by the fund managers. Currency forward contracts are valued by the custodian bank.
Hedge Fund of Funds¹	Valuation of the underlying funds is performed by those funds' General Partners. Valuation of the fund of funds portfolios is provided by third-party administrators and by the General Partner for the portfolios held in limited partnership vehicles.

⁽¹⁾ These assets are reported by LACERA based on the practical expedient allowed under GAAP.

Note: The fair value hierarchy is provided in Note P – Fair Value.

There are certain market risks, credit risks, foreign currency exchange risks, liquidity risks, and event risks that may subject LACERA to economic changes occurring in certain industries, sectors, or geographies.

Dividend income is recorded on the ex-dividend date. Other investment income is recorded as earned on an accrual basis.

Investment Policies — Pension Plan

Investment Policy: The allocation of investment assets within the LACERA Defined Benefit Pension Plan (Pension Plan) investment portfolio is approved by the LACERA Board of Investments, as outlined in the LACERA Investment Policy Statement (IPS). Pension Plan assets are managed on a total return basis with a long-term objective of achieving and maintaining a fully funded status for the benefits provided through the Pension Plan. The Investment Policy Statement calls for an asset liability study to be conducted no later than every three to five years.

In November 2018, the LACERA Board of Investments adopted a restated IPS to address topics such as Legal Authority, Investment Philosophy and Strategy, Investment Process, Risk Management, Roles and Responsibilities, Asset Allocation and Benchmarks, and Delegated Authorities. In addition, the IPS includes several related policies as attachments: Corporate Governance Principles, Corporate Governance Policy, Responsible Contractor Policy, Emerging Manager Policy, and Placement Agent Policy.

The LACERA Board of Investments and internal staff implement asset allocation targets through the use of external managers who manage portfolios using active and passive investment strategies.

Financial statements were prepared using traditional investment asset categories (i.e., equity, fixed income, private equity, real estate, and hedge funds). In the table below and in the Investment Section, investment information is presented in functional asset categories. LACERA's Board of Investments developed and practices its Investment Beliefs which state that long term strategic allocation will be the determinant of LACERA's risk/return outcomes. Based on the Pension Trust Asset Allocation Study completed by Meketa in March 2018, the Board of Investments approved the use of a functional framework for modeling purposes which offers the inclusion of a broader group of investments in Credit and Real Assets and Inflation Hedges. The functional categories include various asset classes that represent the risk/return characteristics of each area. LACERA expects the four functional categories

to diversify the Fund and optimize upside growth while mitigating downside risk. The asset allocation determines what proportion of the Fund is allocated to each functional category and underlying asset class, including target weights and allowable ranges as a percentage of the Fund.

Schedule of Target Allocation and Long-Term Expected Rate of Return

For the Fiscal Year Ended June 30, 2019

Asset Class	Target Allocation (Policy)	Weighted Average 20-Year Expected Real Rate of Return (After Expected 2.75% Inflation Rate) (Geometric)
Growth	47.0%	6.5%
Global Equity	35.0%	5.7%
Private Equity	10.0%	7.1%
Opportunistic Real Estate	2.0%	6.2%
Credit	12.0%	3.4%
High Yield Bonds	3.0%	3.6%
Bank Loans	4.0%	3.3%
Emerging Market Bonds (local)	2.0%	2.5%
Illiquid Credit	3.0%	3.2%
Real Assets and Inflation Hedges	17.0%	3.8%
Core and Value Added Real Estate	7.0%	3.2%
Natural Resources and Commodities	4.0%	4.4%
Infrastructure	3.0%	4.1%
TIPS	3.0%	0.8%
Risk Reduction and Mitigation	24.0%	1.4%
Investment Grade Bonds	19.0%	1.1%
Diversified Hedge Fund Portfolio	4.0%	2.8%
Cash Equivalents	1.0%	0.1%

Target Allocation: The LACERA Board of Investments approved the current target allocation as a result of the Asset Allocation Study completed by Meketa Investment Group (Meketa) in May 2018, which included a new functional allocation model and asset allocation policy ranges. At the time, the Board adopted the targets to provide for diversification of assets in an effort to meet LACERA's actuarial assumed rate of return, consistent with market conditions and risk control.

Weighted Average Long-Term Expected Real Rate of Return: The long-term expected real rate of return on Pension Plan investments is based on inflation expectations and nominal return expectations developed by Meketa Investment Group for each asset class. In the case of the total portfolio and broad asset groupings (e.g., Growth, Credit), returns are calculated using a portfolio approach that first calculates nominal expected returns by incorporating target weights, nominal expected returns, and

volatility and correlations estimates for each asset class, adjusted by the defined return period. Nominal expected returns for each portfolio or broad asset groupings are converted to real expected returns by adjusting them for inflation, using a base inflation rate assumption of 2.75 percent.

It is worth noting that a simple weighted sum of asset classes return will not yield the total results shown on the table for the total portfolio and broad asset groupings, given the process followed to adjust for inflation, the compounding to a given time period, and the impact of volatility and correlations to the portfolio.

Discount Rate: GASB Statement No. 67 requires determination of whether the Pension Plan's Fiduciary Net Position is projected to be sufficient to make projected benefit payments. The discount rate used to measure the Total Pension Liability was 7.38 percent. This rate reflects the long-term assumed rate of return on assets for funding purposes of 7.25 percent, net of all expenses, increased by 0.13 percent, gross of administrative expenses.

The projection of cash flows used to determine the discount rate assumed that Pension Plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rates. Based on those assumptions, the Pension Plan's Fiduciary Net Position was projected to be sufficient to pay projected benefit payments in all future years. 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.

Money-Weighted Rate of Return: The annual money-weighted rate of return on Pension Plan investments, net of Pension Plan investment expenses as of the fiscal years ended June 30, 2019 and 2018, were 5.5 percent and 9.0 percent, respectively. The money-weighted rate of return is a measure of the performance of an investment calculated by finding the rate of return that will set the present values of all cash flows equal to the value of the initial investment. This method is equivalent to the internal rate of return. Historical returns are presented in the Schedule of Investment Returns – Pension Plan in the Required Supplementary Information Section.

Time-Weighted Rate of Return: The annual time-weighted rate of return on Pension Plan investments as of the fiscal years ended June 30, 2019 and 2018, were 6.4 percent and 9.0 percent, respectively. The time-weighted rate of return is a measure of the compound rate of growth in a portfolio. This measure is often used to compare the performance of investment managers because it eliminates the distorting effects on growth rates created by inflows and outflows of money. The time-weighted return breaks up the return on an investment portfolio into separate intervals based on whether money was added or withdrawn from the fund. Historical returns are presented in the Investments Results Based on Fair Value – Pension Plan in the Investment Section.

Use of Estimates

The preparation of LACERA's financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes to the financial statements. Actual results may differ from these estimates.

Reclassifications

Comparative data for the prior year have been presented in the selected sections of the accompanying Statement of Fiduciary Net Position and Statement of Changes in Fiduciary Net Position. Also, certain accounts presented in the prior year's data may have been reclassified to be consistent with the current year's presentation.

Upcoming GASB Pronouncements

In January 2017, the Governmental Accounting Standards Board issued Statement No. 84, *Fiduciary Activities*. This statement establishes uniform criteria for identifying, classifying and reporting fiduciary activities of all state and local governments. Included in the requirements, the standard eliminates the use of the agency funds and in most cases, these activities will be accounted for in custodial funds. This standard will also require a Statement of Changes in Fiduciary Position for custodial funds. LACERA is currently evaluating the impact this standard will have on the financial statements when adopted. The provisions of this statement are effective for LACERA's financial statements for the year ending June 30, 2020.

In June 2017, the Governmental Accounting Standards Board issued Statement No. 87, *Leases*, which improves accounting and financial reporting for leases by governments. This Statement requires recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. It establishes a single model for lease accounting based on the foundational principle that leases are financings of the right to use an underlying asset. Under this Statement, a lessee is required to recognize a lease liability and an intangible right-to-use lease asset, and a lessor is required to recognize a lease receivable and a deferred inflow of resources. LACERA is currently evaluating the impact this standard will have on the financial statements, when adopted. The provisions of this statement are effective for LACERA's fiscal year ending June 30, 2021 financial statements.

NOTE C — Pension Plan Contributions

In December 2009, the LACERA Board of Investments adopted a revised Retirement Benefit Funding Policy (Funding Policy). The Funding Policy was amended in February 2013 to conform to the new standards mandated in the California Public Employees' Pension Reform Act of 2013 (PEPRA).

Members and employers contribute to LACERA based on unisex rates recommended by an independent consulting actuary and adopted by the LACERA Board of Investments and the Los Angeles County Board of Supervisors. Contributory plan members are required to contribute between approximately 5 percent and 16 percent of their annual covered salary. Member and employer contributions received from the Outside Districts constitute part of LACERA's Pension Plan as a whole.

Participating employers are required to contribute the remaining amounts necessary to finance the coverage of their employees (members) through monthly or annual prefunded contributions at actuarially determined rates. Rates for contributory plan members who entered the Pension Plan prior to January 1, 2013, are based upon plan entry-age and plan-type enrollment. As of January 1, 2013, the PEPRA mandated retirement plan contributions for new members on and after January 1, 2013 are based on a single flat-rate percentage and are structured in accordance with the required 50/50 normal cost sharing between the employer and the employees.

Both member rate methodologies are actuarially designed for the employees, as a group, to make contributions into the Pension Plan, which when combined with employer contributions and investment earnings, provide sufficient funding. As a result of collective bargaining, actual member contribution rates for various Plan Types are controlled through these agreements and through additional employer contributions (for some contributory plans), known as the surcharge amount, which is subject to change each year. As required by GASB Statement No. 82, member contributions paid by the employer are included in the member contribution amounts.

The Employer contribution rate is composed of the normal cost and the UAAL amortization payment. Normal cost is the portion of the actuarial present value of retirement benefits attributable to the current year of service. Amortization of the UAAL is payments made for prior year unfunded benefits not provided by future normal costs. The latest actuarial valuation as of June 30, 2018 decreased the Employer normal cost rate from 9.94 percent to 9.92 percent and decreased the Employers' required contribution rate to finance the UAAL over a layered 30-year period from 11.06 percent to 10.99 percent. The change in the Employer contribution rates was primarily due to the recognition of investment gains. Member contribution rates remained the same for General Plan G and decreased for Safety Plan C members effective with the 2018 Actuarial Valuation with no change in rates for other Plans.

Although the Employer normal cost rate and UAAL amortization rates decreased in the June 30, 2018 valuation, the total Employer contribution rate increased 0.87 percent from the previous Valuation as of June 30, 2017 (from 20.04 percent to 20.91 percent) primarily due to the deferred recognition of new assumptions. The 20.91 percent reflects the full three-year phase-in of the increase in the Employer contribution rate due to the new assumptions adopted as a result of the 2016 Experience Study. The cost impact of the assumption changes has been fully phased into the Employer contribution rate as of June 30, 2018 Valuation report.

The most significant factor causing the increase was the additional year phase-in of the cost impact of the 2016 assumption changes which resulted in a 0.96 percent increase in the Employer contribution rate. This increase was partially offset by typical year-to-year fluctuations, including the impact of strong

investment returns which caused a 0.30 percent decrease, with all other factors accounting for a 0.21 percent increase, resulting in a total increase of 0.87 percent.

For the fiscal years ended June 30, 2019 and June 30, 2018, Los Angeles County, including the Superior Court, and the Outside Districts, paid their employer and employee contributions due to LACERA in the form of cash payments. For the fiscal years ended June 30, 2019 and June 30, 2018, employer contributions totaled \$1.67 billion and \$1.52 billion, respectively, and employee contributions totaled \$635 million and \$591 million, respectively.

Pension Plan Contributions

For the Fiscal Years Ended June 30, 2019 and 2018

(Dollars in Thousands)

	2019	2018
Employers		
Los Angeles County	\$1,605,150	\$1,466,411
Superior Court	62,875	58,291
Local Agency Formation Commission	119	106
South Coast Air Quality Management District ¹	—	8
Little Lake Cemetery District	7	7
Los Angeles County Office of Education ²	—	—
Total Employer Contributions	\$1,668,151	\$1,524,823
Employee Contributions ³	\$635,415	\$591,262
Total Contributions	\$2,303,566	\$2,116,085

⁽¹⁾ South Coast Air Quality Management District has no active employees contributing to the Pension System for the fiscal year ended 2019.

⁽²⁾ Los Angeles County Office of Education has no active employees contributing to the Pension System for the fiscal years ended 2019 and 2018.

⁽³⁾ In accordance with GASB Statement No. 82, employer pick-up contributions are classified as Member (Employee) Contributions.

NOTE D — Pension Plan Reserves

LACERA includes reserve accounts within its financial records for various operating purposes as outlined in LACERA's reserves accounting policies. Reserves are established from member and employer contributions and the accumulation of realized investment income after satisfying investment and administrative expenses. With the exception of the reserves required by CERL §31592, reserves are neither required nor recognized under accounting principles generally accepted in the United States of America (i.e., GAAP). They are not shown separately on the Statement of Fiduciary Net Position, as the sum of these reserves equals the Net Position Restricted for Benefits. The reserves do not represent the present value of assets needed, as determined by actuarial valuation, to satisfy retirement and other benefits as they become due. The balances contained within the Net Position Restricted for Benefits are used to satisfy member retirement benefits.

Pension Plan

LACERA's major classes of Pension Plan reserves:

Member Reserves represent the balance of member contributions. Additions include member contributions and related earnings. Deductions include annuity payments to retirees, refunds to members, and related expenses.

Employer Reserves represent the balance of employer contributions for future retirement payments to current active members. Additions include contributions from employers and related earnings. Deductions include annuity payments to retired members, lump-sum death/ burial benefit payments to members' survivors, and supplemental disability payments.

Supplemental Targeted Adjustment for Retirees (STAR) Reserve represents the balance of transfers from the Contingency Reserve for future supplemental cost-of-living adjustment (COLA) increases. Twenty-five percent (25%) of excess earnings in fiscal years 1995-1999 were credited to the STAR Reserve pursuant to the 1994 Retirement System Funding Agreement between LACERA and the County. Additions include transfers from the Contingency Reserve. Deductions include STAR Program payments to retirees and funding for permanent benefits. In October 2008, except for Program Year 2005, the LACERA Board of Retirement made permanent the 2001 through 2009 STAR Programs at an 80 percent level, as authorized in the County Employees Retirement Law of 1937 (CERL). For Program Years 2010 through 2018, additional STAR benefits were not provided. There were no new retirees or beneficiaries entitled to additional STAR benefits for Program Year 2019 due to the modest Consumer Price Index (CPI) percentage increase. Thus, all eligible members had COLA Accumulation accounts below the 20 percent threshold for providing STAR benefits.

Future ad hoc increases in the current STAR Program will be subject to approval by the Board of Retirement on an annual basis, provided sufficient excess earnings are available as determined by the LACERA Board of Investments. Permanent STAR benefits become part of the member's retirement allowance and are payable for life. Ad hoc STAR benefits are payable only for the calendar year approved.

Contingency Reserve represents reserves accumulated for future earning deficiencies, investment losses, and other contingencies. Additions include realized investment income and other revenues. Deductions include investment expenses; administrative expenses; interest allocated to other reserves, in priority order, to the extent that realized earnings are available for the six-month period, as defined in the 2009 Retirement Benefit Funding Policy (Funding Policy) amended in 2013, approved by the LACERA Board of Investments; and funding of the STAR Reserve when excess earnings are available and authorized by the LACERA Board of Retirement. For the fiscal years ended June 30, 2019 and 2018,

the net investment earnings were applied as interest credits to some of the reserves in accordance with the Funding Policy, leaving no available credits for the Contingency Reserve.

Pension Plan Reserves

As of June 30, 2019 and 2018

(Dollars in Thousands)

	2019	2018
Member Reserves	\$22,363,376	\$21,438,278
Employer Reserves	22,464,894	22,610,763
STAR Reserve	614,011	614,011
Contingency Reserve	—	—
Total Reserves at Book Value	\$45,442,281	\$44,663,052
Unrealized Investment Portfolio Appreciation	\$12,852,555	\$11,636,930
Total Reserves at Fair Value ¹	\$58,294,836	\$56,299,982

⁽¹⁾ Total Reserves at Fair Value equals the Net Position Restricted for Benefits as presented in the Basic Financial Statements.

NOTE E — Pension Plan Liabilities

The County Employees Retirement Law of 1937 (CERL) requires an actuarial valuation to be performed at least every three years for the purpose of measuring the Pension Plan's funding progress and setting contribution rates. LACERA exceeds this requirement by engaging an independent actuarial consulting firm to perform an actuarial valuation for the Pension Plan annually. Employer contribution rates and employee contribution rates for new retirement plans established under the California Public Employees' Pension Reform Act of 2013 (PEPRA) may be updated each year as a result of the valuation.

Actuarial standards guide the frequency with which an investigation of experience (experience study) is performed. LACERA engages an independent actuarial consulting firm to perform the experience study at least every three years. The economic and demographic assumptions are reviewed and updated as deemed necessary each time an experience study is completed. The experience study and corresponding annual valuation serve as the basis for changes in employer and member contribution rates for both PEPRA and legacy retirement plans necessary to properly fund the Pension Plan.

The LACERA Board of Investments adopted new assumptions beginning with the June 30, 2013 and June 30, 2016 actuarial valuations, based on the results of the 2013 and 2016 triennial experience studies. For financial reporting purposes, LACERA reviews these assumptions annually to ensure they continue to represent appropriate plan assumptions under GAAP.

Actuarial Assumptions

Actuarial valuations of an ongoing plan involve assumptions about the probability of the occurrence of events far into the future. Examples include assumptions about future employment, mortality, cost trends, assumed rate of return, inflation, and other demographic and economic changes over time. Actuarially determined assumptions are subject to continual review or modification as actual experience is compared with past expectations and new estimates are made about the future. Projections of benefits for financial reporting purposes are based on the adopted assumptions and actual demographics of the Pension Plan and include the types of benefits provided at the time of each valuation.

The Total Pension Liability as of June 30, 2019, was determined by completing a roll forward calculation based on an actuarial valuation conducted as of June 30, 2018, using the following actuarial assumptions in accordance with the requirements of GASB Statement No. 67 (GASB 67). The actuarial funding valuation serves as a basis for the GASB 67 information. All actuarial methods and assumptions used for this GASB analysis were the same as those used for the June 30, 2018 funding valuation, except where differences are noted. Key methods and assumptions used to calculate the Total Pension Liability are presented as follows. For additional information regarding the actuarial valuation, refer to the Actuarial Section.

Actuarial Methods and Significant Assumptions

Description	Method
Actuarial Cost Method	Individual Entry Age Normal.
Discount Rate	7.38 percent, net of Pension Plan investment expense, including inflation. This rate was adopted beginning with the June 30, 2016 valuation.
Price Inflation	2.75 percent. This rate was adopted beginning with the June 30, 2016 valuation.
General Wage Growth And Projected Salary Increases	General wage growth: 3.25 percent. This rate was adopted beginning with the June 30, 2016 valuation. Projected salary increases: 3.51 percent to 11.51 percent. The total expected increase in salary includes both merit and the general wage increase assumption of 3.25 percent per annum. The total result is compounded rather than additive. Increases are assumed to occur mid-year (i.e., January 1) and apply only to base salary. The mid-year timing reflects that salary increases occur throughout the year, or on average mid-year. These rates were adopted beginning with the June 30, 2016 valuation.
Cost-of-Living Adjustments	Post-retirement benefit increases of either 2.75 percent or 2.0 percent per year (a pro-rata portion for Plan E) are assumed. This assumption was adopted with the June 30, 2016 valuation. The LACERA Funding Policy calls for the inclusion of the Supplemental Targeted Adjustment for Retirees (STAR) Reserve in the calculation of valuation assets for funding purposes, with no corresponding liability. For the Total Pension Liability, STAR COLA (Cost-of-Living Adjustments) benefits are assumed to be substantively automatic at the 80 percent purchasing power level until the STAR Reserve is projected to be insufficient to pay further STAR benefits. This roll-forward calculation includes a future liability for STAR COLA benefits. See Note A — Plan Description for additional COLA and STAR COLA information.
Mortality	Various rates based on the RP-2014 mortality tables and including projection for expected future mortality improvement using the MP-2014 Ultimate Projection Scale. This assumption was adopted with the June 30, 2016 valuation.

Discount Rate

The long-term expected rate of return was determined by adding expected inflation to expected long-term real returns and reflecting expected volatility and correlation. Milliman's December 2016 Investigation of Experience analysis was used to develop the 7.38 percent assumption used for the current reporting date. This is equal to the 7.25 percent long-term investment return assumption adopted by the Board (net of investment and administrative expenses), plus 0.13 percent assumed administrative expenses, as required by GASB 67. LACERA has reviewed this assumption as of the report date using current capital market assumptions provided by their external advisors.

The plan's projected Fiduciary Net Position, after reflecting employee and employer made contributions, was expected to be sufficient to make all future benefit payments of current active and inactive (deferred) employees. Therefore, the discount rate for calculating the Total Pension Liability is equal to the long-term expected rate of return, gross of administrative expenses.

Other Key Assumptions

Other key actuarial assumptions used to calculate the Total Pension Liability as of the June 30, 2019 measurement date are the same as used to determine the June 30, 2018 actuarial funding valuation. For the determination of the Total Pension Liability as of the June 30, 2018 measurement date, other key actuarial assumptions were the same as used in the June 30, 2017 actuarial funding valuation.

Net Pension Liability

GASB 67 requires public pension plans to provide the calculation of a Net Pension Liability. The Net Pension Liability is measured as the Total Pension Liability less the amount of the Pension Plan's Fiduciary Net Position.

The Net Pension Liability is an accounting measurement for financial statement reporting purposes. The funded status of the Plan is calculated separately by the consulting actuary and the results are included in the actuarial valuation report. The components of LACERA's (the Pension Plan's) Net Pension Liability at fiscal year end June 30, 2019 and 2018, were as follows:

Schedule of Net Pension Liability

For the Fiscal Years Ended June 30, 2019 and 2018

(Dollars in Thousands)

	2019	2018
Total Pension Liability	\$70,309,252	\$67,057,218
Less: Fiduciary Net Position	(58,294,837)	(56,299,982)
Net Pension Liability	\$12,014,415	\$10,757,236
Fiduciary Net Position as a Percentage of Total Pension Liability	82.91%	83.96%

Sensitivity Analysis

In accordance with GASB 67, sensitivity of the Net Pension Liability to changes in the discount rate must be reported. The following presents the Net Pension Liability, calculated for the fiscal year ended June 30, 2019 using the discount rate of 7.38 percent, as well as what the Net Pension Liability would be if it were calculated using a discount rate that is 1 percentage point lower (6.38 percent) or 1 percentage point higher (8.38 percent) than the current rate (7.38 percent). A corresponding calculation is presented for the fiscal year ended June 30, 2018 based on the discount rate in effect for that year:

Sensitivity Analysis*For the Fiscal Years Ended June 30, 2019 and 2018*

(Dollars in Thousands)

	2019			2018		
	1% Decrease 6.38%	Current Discount Rate 7.38%	1% Increase 8.38%	1% Decrease 6.38%	Current Discount Rate 7.38%	1% Increase 8.38%
Total Pension Liability	\$79,765,829	\$70,309,252	\$62,489,864	\$76,111,825	\$67,057,218	\$59,571,811
Less: Fiduciary Net Position	(58,294,837)	(58,294,837)	(58,294,837)	(56,299,982)	(56,299,982)	(56,299,982)
Net Pension Liability	\$21,470,992	\$12,014,415	\$4,195,027	\$19,811,843	\$10,757,236	\$3,271,829

NOTE F — Partial Annuitization of Pension Benefit Payments

In January 1987, LACERA entered into agreements to purchase single life annuities from two insurance companies to provide pension benefit payments to a portion of the retired members. Under the terms of the agreements, LACERA continues to administer all pension benefit payments to covered members. There is no effect on covered members, since they retain all pension benefits accorded to LACERA members, including rights to continuance of benefits to survivors, health insurance subsidies, and cost-of-living adjustments (COLAs). The values of the annuities are entirely allocated to covered members. The monthly annuity reimbursement from the annuity providers is limited to the straight life annuity payments and statutory COLA increases.

LACERA is responsible for any difference in pension benefit payments payable to covered members which are unreimbursed by the insurance companies. The reimbursements received are netted against the pension and annuity payments in LACERA's financial statements. For the fiscal year ended June 30, 2019, LACERA paid \$13.0 million to covered members and received \$10.8 million in related reimbursements. For the fiscal year ended June 30, 2018, LACERA paid \$15.3 million to covered members and received \$12.6 million in related reimbursements. As the monthly annuity reimbursement from the annuity providers is allocated to covered members' pension payments, the fair value of contracts was excluded from pension plan assets and actuarially determined amounts.

NOTE G — Deposit and Investment Risks

The County Employees Retirement Law of 1937 (CERL) vests the LACERA Board of Investments with exclusive control over LACERA's investment portfolio. The LACERA Board of Investments established Investment Policy Statements and Manager Guidelines for the management of the LACERA defined benefit retirement plan (Pension Plan) and the LACERA Other Post-Employment Benefit Master Trust (OPEB Master Trust or OPEB Trust). The LACERA Board of Investments exercises authority and control over the management of LACERA's Net Position Restricted for Benefits by setting a policy that the Investments staff executes either internally or through the use of prudent external experts.

Each Investment Policy Statement recognizes that every investment asset class and type is subject to certain risks. Outlined below are the Deposit and Investment Risks as they relate to fixed income investments.

Credit Risk

Credit Risk is the risk that an issuer or a counterparty to an investment transaction will not fulfill its obligations, causing the investment to decline in value. LACERA seeks to maintain a diversified portfolio of fixed income instruments in order to obtain the highest total return for the Pension Plan at an acceptable level of risk within this asset class. To control Credit Risk, credit quality guidelines have been established.

Investment Grade Bonds

Investment Grade bonds are categorized as a component of the Risk Reduction and Mitigation functional asset category presented in the Investment Section, and are subdivided into two types of strategies: Core and Core Plus, with target allocation weights of 80% for Core and 20% for Core Plus. Investment guidelines for Core managers require that they invest predominantly in sectors represented in their benchmark index, which consists 100% of bonds rated investment grade. As a result, Core portfolios consist almost 100% of bonds rated investment grade by the major credit rating agencies: Moody's, Standard and Poor's, and Fitch. Core Plus managers are afforded some latitude to deviate from the benchmark index in order to generate excess return, so investment grade bonds must comprise at least 70% of Core Plus portfolios.

High Yield Bonds

Dedicated High Yield bond portfolios are categorized in the Credit functional asset category presented in the Investment Section. By definition, high yield bonds are securities rated below investment grade. Therefore, the majority of bonds in the high yield portfolios are rated below investment grade by at least one of the major credit rating agencies: Moody's, S&P, and Fitch.

High yield portfolios use the following credit quality guidelines.

- At least 95 percent of all rated securities, including Rule 144A securities, must be rated B- or higher by S&P or equivalent by a major credit rating agency at the time of purchase.
- Consistent with the preceding requirement, a maximum of 5 percent of the portfolio may be invested in issues rated below B- by S&P or equivalent; however, these issues must be rated at least CCC by S&P or Caa by Moody's.
- Unrated issues may be purchased, provided that, in the judgment of the Investment Manager, they would not violate LACERA's minimum credit criteria.
- Money market instruments must be rated at least A-2/P-2 or equivalent by at least one major credit rating agency.

The Credit portfolios allow for the assumption of more credit risk than Investment Grade portfolios by investing in securities that include unrated bonds, bonds rated below investment grade issued by corporations undergoing financial stress or distress, junior tranches of structured securities backed by residential and commercial mortgages, bank loans, illiquid credit, and emerging market debt. LACERA utilizes specific investment guidelines for these portfolios that limit maximum exposure by issuer, industry, and sector, which result in well-diversified portfolios.

The following is a schedule for the year ended June 30, 2019 of the credit quality ratings by Moody's, a nationally recognized statistical rating organization, of investments in fixed income securities. Whole loan mortgages included in the Pension Plan portfolio of \$27 million are excluded from this presentation.

Credit Quality Ratings of Investments in Fixed Income Securities — Pension Plan

As of June 30, 2019

(Dollars in Thousands)

Quality Ratings	U.S. Treasuries	U.S. Govt Agencies	Municipals	Corporate Debt/Credit Securities	Pooled Investment	Non- U.S. Fixed Income	Private Placement Fixed Income	Total	Percentage of Portfolio
Aaa	\$1,605,167	\$2,040,089	\$831	\$237,230	\$—	\$1,980	\$227,427	\$4,112,724	22.8%
Aa	—	4,245	24,668	179,219	—	3,986	61,327	273,445	1.5%
A	—	—	8,696	659,900	—	11,610	247,339	927,545	5.2%
Baa	—	—	13,913	976,853	—	10,907	273,128	1,274,801	7.1%
Ba	—	—	—	392,778	—	9,757	287,172	689,707	3.8%
B	—	—	91	770,865	—	36,157	411,389	1,218,502	6.8%
Caa	—	—	—	164,700	—	558	127,317	292,575	1.6%
Ca	—	—	4,918	36,179	—	—	1,519	42,616	0.2%
C	—	—	—	574	—	—	3	577	—%
Not Rated	—	100,216	5,134	182,793	8,555,790	10,824	314,293	9,169,050	50.9%
Total	\$1,605,167	\$2,144,550	\$58,251	\$3,601,091	\$8,555,790	\$85,779	\$1,950,914	\$18,001,542	100%

The following is a schedule for the year ended June 30, 2018 of the credit quality ratings by Moody's, a nationally recognized statistical rating organization, of investments in fixed income securities. Whole loan mortgages included in the Pension Plan portfolio of \$33 million are excluded from this presentation.

Credit Quality Ratings of Investments in Fixed Income Securities — Pension Plan

As of June 30, 2018

(Dollars in Thousands)

Quality Ratings	U.S. Treasuries	U.S. Govt. Agencies	Municipals	Corporate Debt/Credit Securities	Pooled Investment	Non-U.S. Fixed Income	Private Placement Fixed Income	Total	Percentage of Portfolio
Aaa	\$1,708,192	\$1,837,787	\$10,219	\$604,685	\$—	\$22,367	\$318,025	\$4,501,275	28.3%
Aa	—	—	24,870	328,302	318,126	3,984	89,899	765,181	4.8%
A	—	—	8,548	785,183	—	42,360	312,151	1,148,242	7.2%
Baa	—	2,629	22,215	1,354,043	39,344	3,870	407,068	1,829,169	11.5%
Ba	—	—	—	569,588	—	22,016	255,450	847,054	5.3%
B	—	—	90	642,681	30,624	30,367	416,897	1,120,659	7.0%
Caa	—	—	—	240,469	—	6,787	104,935	352,191	2.2%
Ca	—	—	—	39,969	—	—	845	40,814	0.3%
C	—	—	1,272	156	—	—	195	1,623	—%
Not Rated	—	1,743	7,144	205,324	4,913,260	5,843	162,215	5,295,529	33.3%
Total	\$1,708,192	\$1,842,159	\$74,358	\$4,770,400	\$5,301,354	\$137,594	\$2,067,680	\$15,901,737	100%

Credit Quality Ratings of Investments in Fixed Income Securities — OPEB Trust*As of June 30, 2019*

(Dollars in Thousands)

Quality Ratings	U.S. Treasuries	Corporate Debt/ Credit Securities	Pooled Investment	Private Placement Fixed Income	Total	Percentage of Portfolio
Aaa	\$2,993	\$825	\$—	\$512	\$4,330	0.9%
Aa	—	1,333	—	468	1,801	0.4%
A	—	3,382	—	1,249	4,631	1.0%
Not Rated	—	679	468,061	271	469,011	97.8%
Total	\$2,993	\$6,219	\$468,061	\$2,500	\$479,773	100%

Credit Quality Ratings of Investments in Fixed Income Securities — OPEB Trust*As of June 30, 2018*

(Dollars in Thousands)

Quality Ratings	U.S. Treasuries	Corporate Debt/ Credit Securities	Pooled Investment	Private Placement Fixed Income	Total	Percentage of Portfolio
Aaa	\$991	\$983	\$—	\$—	\$1,974	0.5%
Aa	—	784	—	779	1,563	0.4%
A	—	3,813	—	3,014	6,827	1.8%
Not Rated	—	155	362,154	289	362,598	97.2%
Total	\$991	\$5,735	\$362,154	\$4,082	\$372,962	100%

Credit Quality Ratings of Investments in Fixed Income Securities — OPEB Agency Fund*As of June 30, 2019*

(Dollars in Thousands)

Quality Ratings	U.S. Treasuries	Corporate Debt/ Credit Securities	Private Placement Fixed Income	Total	Percentage of Portfolio
Aaa	\$61,607	\$10,281	\$4,759	\$76,647	64.6%
Aa	—	12,073	1,810	13,883	11.7%
A	—	23,880	4,277	28,157	23.7%
Total	\$61,607	\$46,234	\$10,846	\$118,687	100%

Credit Quality Ratings of Investments in Fixed Income Securities — OPEB Agency Fund*As of June 30, 2018*

(Dollars in Thousands)

Quality Ratings	U.S. Treasuries	Corporate Debt/Credit Securities	Private Placement Fixed Income	Total	Percentage of Portfolio
Aaa	\$58,525	\$5,983	\$2,797	\$67,305	62.7%
Aa		8,782	1,777	10,559	9.8%
A		22,509	3,718	26,227	24.4%
Baa		587		587	0.5%
Not Rated		2,080	636	2,716	2.5%
Total	\$58,525	\$39,941	\$8,928	\$107,394	100%

Custodial Credit Risk

LACERA's contract with its custodian State Street Bank and Trust (Bank) provides that the Bank may hold LACERA's securities registered in the Bank's or its agent's nominee name, in bearer form, in book-entry form, with a clearing house corporation, or with a depository, so long as the Bank's records clearly indicate that the securities are held in custody for LACERA's account. The Bank may also hold securities in custody in LACERA's name when required by LACERA. When held in custody by the Bank, the securities are not at risk of loss in the event of the Bank's financial failure, because the securities are not property (assets) of the Bank. Cash invested overnight in the Bank's depository accounts is subject to the risk that in the event of the Bank's failure, LACERA might not recover all or some of those overnight deposits. This risk is mitigated when the overnight deposits are insured or collateralized.

LACERA's policy as incorporated in its current contract with the Bank requires the Bank to certify it has taken all steps to assure all LACERA monies on deposit with the Bank are eligible for and covered by "pass-through insurance," in accordance with applicable law and FDIC rules and regulations. The steps taken by the Bank include paying deposit insurance premiums when due, maintaining a "prompt corrective action" capital category of "well capitalized," and identifying on the Bank's records that it acts as a fiduciary for LACERA with respect to the monies on deposit. In addition, the Bank is required to provide evidence of insurance and to maintain a Financial Institution Bond, which would cover the loss of money and securities with respect to any and all property the Bank or its agents hold in or for LACERA's account, up to the amount of the bond. To implement certain investment strategies, some of LACERA's assets are invested in investment managers' pooled vehicles. The securities in these vehicles may be held by a different custodian other than State Street Bank and Trust.

Counterparty Risk

Counterparty Risk for investments is the risk that, in the event of the failure of the counterparty to complete a transaction, LACERA would not be able to recover the value of the investment or collateral securities that are in the possession of an outside party. LACERA and its managers seek to minimize risk of loss from its counterparties by diversifying the number of counterparties, periodically reviewing their credit quality and seeking to structure agreements so that collateral is posted on accrued gains if they reach certain size thresholds.

Concentration of Credit Risk

No more than 5 percent of the Investment Grade bond and High Yield bond portfolios may be invested in securities of a single issuer, except: U.S. Treasury securities, government-guaranteed debt (including G-7 countries), agency debt, agency mortgage-backed securities, and approved commingled funds.

As of June 30, 2019, LACERA did not hold any investments in any one issuer that would represent 5 percent or more of the Pension Plan Fiduciary Net Position. Investments issued or explicitly guaranteed by the U.S. government and pooled investments are excluded from this requirement.

Interest Rate Risk

Interest Rate Risk is the risk that changes in interest rates will adversely affect the fair value of an investment. Duration is a measure of the price sensitivity of a fixed income portfolio to changes in interest rates. It is calculated as the weighted average time to receive a bond's coupon and principal payments. The longer the duration of a portfolio, the greater its price sensitivity to changes in interest rates.

To manage Interest Rate Risk, the duration of all Investment Grade bond portfolios is restricted to plus or minus 25.0 percent of the duration of the portfolios' respective benchmarks. Deviations from any of the stated guidelines require prior written authorization from LACERA.

The Duration in Fixed Income Securities – Pension Plan schedule for the year ended June 30, 2019 presents the duration by investment type. Whole loan mortgages included in the Pension Plan portfolio of \$27 million are excluded from this presentation.

Duration in Fixed Income Securities — Pension Plan

As of June 30, 2019

(Dollars in Thousands)

Investment Type	Fair Value	Portfolio-Weighted Average Effective Duration ¹
U.S. Treasuries, U.S. Government Agency, and Municipal Instruments:		
U.S. Treasuries	\$1,605,167	8.26
U.S. Government Agency	2,144,550	1.86
Municipal / Revenue Bonds	58,250	9.12
Subtotal U.S. Treasuries, U.S. Government Agency, and Municipal Instruments	\$3,807,967	
Corporate Bonds and Credit Securities:		
Asset-Backed Securities	\$506,275	1.63
Corporate and Other Credit	3,121,985	3.55
Fixed Income Swaps and Options	(27,169)	N/A
Pooled Funds	8,555,790	N/A
Subtotal Corporate Bonds and Credit Securities	\$12,156,881	
Non-U.S. Fixed Income	\$85,780	3.17
Private Placement Fixed Income	1,950,914	3.03
Subtotal Non-U.S. and Private Placement Securities	\$2,036,694	
Total Fixed Income Securities	\$18,001,542	

⁽¹⁾ Effective Duration is a measure of a bond's sensitivity to interest rates. It is calculated as the percentage change in a bond's price caused by a change in the bond's yield. For example, a duration of 5 indicates that a 1 percent increase in a bond's yield will cause the bond price to decline 5 percent.

The Duration in Fixed Income Securities – Pension Plan schedule for the year ended June 30, 2018 presents the duration by investment type. Whole loan mortgages included in the Pension Plan portfolio of \$33 million are excluded from this presentation.

Duration in Fixed Income Securities — Pension Plan

As of June 30, 2018

(Dollars in Thousands)

Investment Type	Fair Value	Portfolio-Weighted Average Effective Duration ¹
U.S. Treasuries, U.S. Government Agency, and Municipal Instruments:		
U.S. Treasuries	\$1,708,192	7.18
U.S. Government Agency	1,842,159	0.19
Municipal / Revenue Bonds	74,358	9.06
Subtotal U.S. Treasuries, U.S. Government Agency, and Municipal Instruments	\$3,624,709	
Corporate Bonds and Credit Securities:		
Asset-Backed Securities	\$678,777	1.57
Corporate and Other Credit	4,083,686	3.47
Fixed Income Swaps and Options	7,936	N/A
Pooled Funds	5,301,355	N/A
Subtotal Corporate Bonds and Credit Securities	\$10,071,754	
Non-U.S. Fixed Income	\$137,594	3.65
Private Placement Fixed Income	2,067,680	3.47
Subtotal Non-U.S. and Private Placement Securities	\$2,205,274	
Total Fixed Income Securities	\$15,901,737	

⁽¹⁾ Effective Duration is a measure of a bond's sensitivity to interest rates. It is calculated as the percentage change in a bond's price caused by a change in the bond's yield. For example, a duration of 5 indicates that a 1 percent increase in a bond's yield will cause the bond price to decline 5 percent.

Duration in Fixed Income Securities — OPEB Trust*As of June 30, 2019*

(Dollars in Thousands)

Investment Type	Fair Value	Portfolio-Weighted Average Effective Duration ¹
U.S. Treasuries	\$2,993	1.16
Corporate Bonds and Credit Securities:		
Asset-Backed Securities	\$1,334	0.27
Corporate and Other Credit	4,885	0.55
Pooled Investments	468,061	N/A
Subtotal Corporate Bonds and Credit Securities	\$474,280	
Private Placement Fixed Income	\$2,500	0.62
Total Fixed Income Securities	\$479,773	

⁽¹⁾ Effective Duration is a measure of a bond's sensitivity to interest rates. It is calculated as the percentage change in a bond's price caused by a change in the bond's yield. For example, a duration of 5 indicates that a 1 percent increase in a bond's yield will cause the bond price to decline 5 percent.

Duration in Fixed Income Securities — OPEB Trust*As of June 30, 2018*

(Dollars in Thousands)

Investment Type	Fair Value	Portfolio-Weighted Average Effective Duration ¹
U.S. Treasuries	\$991	0.55
Corporate Bonds and Credit Securities:		
Asset-Backed Securities	\$1,138	0.15
Corporate and Other Credit	4,597	1.43
Pooled Investments	362,154	N/A
Subtotal Corporate Bonds and Credit Securities	\$367,889	
Private Placement Fixed Income	\$4,082	0.63
Total Fixed Income Securities - OPEB Trust	\$372,962	

⁽¹⁾ Effective Duration is a measure of a bond's sensitivity to interest rates. It is calculated as the percentage change in a bond's price caused by a change in the bond's yield. For example, a duration of 5 indicates that a 1 percent increase in a bond's yield will cause the bond price to decline 5 percent.

Duration in Fixed Income Securities — OPEB Agency Fund*As of June 30, 2019*

(Dollars in Thousands)

Investment Type	Fair Value	Portfolio-Weighted Average Effective Duration ¹
U.S. Treasuries	\$61,607	2.28
Corporate Bonds and Credit Securities:		
Asset-Backed Securities	\$9,414	1.25
Corporate and Other Credit	36,820	1.71
Subtotal Corporate Bonds and Credit Securities	\$46,234	
Private Placement Fixed Income	\$10,846	1.41
Total Fixed Income Securities	\$118,687	

⁽¹⁾ Effective Duration is a measure of a bond's sensitivity to interest rates. It is calculated as the percentage change in a bond's price caused by a change in the bond's yield. For example, a duration of 5 indicates that a 1 percent increase in a bond's yield will cause the bond price to decline 5 percent.

Duration in Fixed Income Securities — OPEB Agency Fund*As of June 30, 2018*

(Dollars in Thousands)

Investment Type	Fair Value	Portfolio-Weighted Average Effective Duration ¹
U.S. Treasuries	\$58,525	1.81
Corporate Bonds and Credit Securities:		
Asset-Backed Securities	7,214	1.53
Corporate and Other Credit	\$32,727	2.14
Subtotal Corporate Bonds and Credit Securities	\$39,941	
Private Placement Fixed Income	\$8,928	1.81
Total Fixed Income Securities - OPEB Agency Fund	\$107,394	

⁽¹⁾ Effective Duration is a measure of a bond's sensitivity to interest rates. It is calculated as the percentage change in a bond's price caused by a change in the bond's yield. For example, a duration of 5 indicates that a 1 percent increase in a bond's yield will cause the bond price to decline 5 percent.

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. LACERA's authorized managers are permitted to invest in approved countries or regions, as stated in their respective investment guidelines. To mitigate Foreign Currency Risk with global equity, LACERA has implemented a passive currency hedging program, which hedges into U.S. dollars approximately 50 percent of LACERA's foreign currency exposure for developed market equities.

The following schedule represents LACERA's exposure to Foreign Currency Risk in U.S. dollars. LACERA is invested in several non-U.S. commingled funds. This means LACERA owns units of commingled funds, and the fund holds actual securities and/or currencies. The values shown include LACERA's pro rata portion of non-U.S. commingled fund holdings.

Non-U.S. Investment Securities at Fair Value — Pension Plan

As of June 30, 2019

(Dollars in Thousands)

Currency	Equity	Fixed Income	Foreign Currency	Real Estate Commingled Funds	Private Equity Investments	Forward Contracts	Total
AFRICA							
Ghanaian Cedi	\$—	\$216	\$—	\$—	\$—	\$—	\$216
Kenya Shilling	1,884	—	—	—	—	—	1,884
Moroccan Dirham	3,425	—	—	—	—	—	3,425
Nigerian Naira	11,860	199	—	—	—	—	12,059
South African Rand	210,439	12,135	26	—	—	—	222,600
AMERICAS							
Argentine Peso	5,374	15,001	159	—	—	(88)	20,446
Brazilian Real	212,043	40,224	507	—	—	—	252,774
Canadian Dollar	995,278	597	(583)	—	—	(8,732)	986,560
Chilean Peso	29,486	4,711	—	—	—	—	34,197
Colombian Peso	14,749	13,342	2	—	—	—	28,093
Dominican Peso	—	215	—	—	—	—	215
Mexican Peso	83,676	28,228	1,353	—	—	(72)	113,185
Peruvian New Sol	10,213	5,610	—	—	—	—	15,823
Uruguayan Peso	—	792	—	—	—	—	792
ASIA							
Australian Dollar	440,681	3,989	374	—	—	4,055	449,099
Chinese Renminbi	202,261	8,630	247	—	—	—	211,138
Hong Kong Dollar	911,449	16	1,280	—	—	(280)	912,465
Indian Rupee	287,263	15,991	—	—	—	—	303,254
Indonesian Rupiah	61,900	26,622	63	—	—	—	88,585
Japanese Yen	1,586,453	(982)	3,772	—	—	(24,744)	1,564,499
Malaysian Ringgit	49,707	4,522	29	—	—	—	54,258
New Zealand Dollar	36,756	238	73	—	—	(120)	36,947
Pakistan Rupee	913	—	—	—	—	—	913
Philippine Peso	27,783	1,825	1	—	—	—	29,609
Singapore Dollar	103,413	6,114	70	—	—	2	109,599
South Korean Won	442,579	8,084	—	—	—	—	450,663
Taiwan Dollar	215,762	4,773	—	—	—	—	220,535
Thai Baht	87,955	12,617	5	—	—	—	100,577

Non-U.S. Investment Securities at Fair Value — Pension Plan (continued)

As of June 30, 2019

(Dollars in Thousands)

Currency	Equity	Fixed Income	Foreign Currency	Real Estate Commingled Funds	Private Equity Investments	Forward Contracts	Total
Vietnamese Dong	33,649	—	—	—	—	—	33,649
EUROPE							
British Pound Sterling	1,607,880	24,663	5,637	1,497	29,526	21,462	1,690,665
Czech Republic Koruna	2,090	12,597	—	—	—	—	14,687
Danish Krone	160,765	8,891	81	—	—	(913)	168,824
Euro	2,700,632	109,089	16,151	214,554	246,944	(14,453)	3,272,917
Hungarian Forint	14,420	11,199	30	—	—	—	25,649
Iceland Krona	—	55	—	—	—	—	55
Norwegian Krone	75,780	—	566	—	—	(36)	76,310
Polish Zloty	25,231	22,626	25	—	—	—	47,882
Romanian New Leu	13,717	3,741	—	—	—	—	17,458
Russian Ruble	92,780	23,715	454	—	—	2	116,951
Swedish Krona	315,312	—	270	—	—	(1,270)	314,312
Swiss Franc	721,518	—	49	—	—	(10,084)	711,483
Ukrainian Hryvnia	—	1,046	—	—	—	—	1,046
MIDDLE EAST							
Egyptian Pound	12,027	2,950	—	—	—	—	14,977
Israeli New Shekel	71,842	1,345	33	—	—	(119)	73,101
Jordanian Dinar	5,133	—	—	—	—	—	5,133
Qatari Rial	14,716	—	43	—	—	—	14,759
Saudi Riyal	24,685	(1,250)	—	—	—	—	23,435
Turkish Lira	50,502	3,311	10	—	—	—	53,823
UAE Dirham	17,092	—	10	—	—	—	17,102
Total Investment Securities Subject to Foreign Currency Risk							
	\$11,993,073	\$437,687	\$30,737	\$216,051	\$276,470	(\$35,390)	\$12,918,628

Non-U.S. Investment Securities at Fair Value — Pension Plan*As of June 30, 2018*

(Dollars in Thousands)

Currency	Equity	Fixed Income	Foreign Currency	Real Estate Commingled Funds	Private Equity Investments	Forward Contracts	Total
AFRICA							
Ghana New Cedi	\$2,402	\$—	\$—	\$—	\$—	\$—	\$2,402
Kenyan Shilling	3,586	—	—	—	—	—	3,586
Moroccan Dirham	3,390	—	—	—	—	—	3,390
Nigerian Naira	16,818	—	—	—	—	—	16,818
South African Rand	206,894	—	153	—	—	—	207,047
AMERICAS							
Argentine Peso	1,721	2,136	428	—	—	26	4,311
Brazilian Real	173,126	(34)	81	—	—	—	173,173
Canadian Dollar	839,897	555	(111)	—	—	10,729	851,070
Chilean Peso	30,462	—	—	—	—	—	30,462
Colombian Peso	13,625	—	1	—	—	—	13,626
Mexican Peso	94,675	39,999	2,419	—	—	55	137,148
Peruvian New Sol	12,401	—	—	—	—	—	12,401
Uruguayan Peso	—	3,406	—	—	—	—	3,406
ASIA							
Australian Dollar	567,221	3,714	4,015	—	—	11,930	586,880
Chinese Renminbi	122,583	—	—	—	—	—	122,583
Hong Kong Dollar	1,016,518	—	2,952	—	—	219	1,019,689
Indian Rupee	315,667	—	—	—	—	—	315,667
Indonesian Rupiah	52,087	—	20	—	—	—	52,107
Japanese Yen	2,046,373	423	16,857	—	—	37,477	2,101,130
Malaysian Ringgit	58,547	—	296	—	—	—	58,843
New Taiwan Dollar	272,839	—	—	—	—	—	272,839
New Zealand Dollar	18,189	227	56	—	—	609	19,081
Pakistan Rupee	1,851	0	0	—	—	—	1,851
Philippine Peso	21,580	—	1	—	—	—	21,581
Singapore Dollar	176,918	—	3,783	—	—	2,380	183,081
South Korean Won	502,754	—	515	—	—	—	503,269
Thai Baht	85,664	—	9	—	—	—	85,673
Vietnamese Dong	32,888	—	—	—	—	—	32,888
EUROPE							
British Pound Sterling	1,671,247	13,646	2,260	1,899	25,792	45,412	1,760,256
Czech Republic Koruna	2,213	—	—	—	—	—	2,213
Danish Krone	148,938	22,140	—	—	—	4,866	175,944

Non-U.S. Investment Securities at Fair Value — Pension Plan (continued)*As of June 30, 2018*

(Dollars in Thousands)

Currency	Equity	Fixed Income	Foreign Currency	Real Estate Commingled Funds	Private Equity Investments	Forward Contracts	Total
Euro	2,765,040	47,163	6,485	191,811	278,346	35,273	\$3,324,118
Hungarian Forint	11,197	—	0	—	—	0	\$11,197
Norwegian Krone	85,919	—	5	—	—	1,584	\$87,508
Polish Zloty	25,529	—	233	—	—	0	\$25,762
Romanian New Leu	8,686	—	—	—	—	—	\$8,686
Russian Ruble	83,826	5,578	42	—	—	—	\$89,446
Swedish Krona	281,171	—	30	—	—	10,158	\$291,359
Swiss Franc	641,643	—	—	—	—	8,361	\$650,004
MIDDLE EAST							
Egyptian Pound	7,509	—	—	—	—	0	\$7,509
Israeli New Shekel	59,323	—	—	—	—	828	\$60,151
Lebanese Pound	1,124	—	—	—	—	—	\$1,124
Qatari Rial	12,422	—	31	—	—	—	\$12,453
Saudi Riyal	4,058	—	—	—	—	—	\$4,058
Turkish Lira	59,738	—	248	—	—	—	\$59,986
UAE Dirham	11,966	—	—	—	—	—	\$11,966
Total Investment Securities Subject to Foreign Currency Risk	\$12,572,225	\$138,953	\$40,809	\$193,710	\$304,138	\$169,907	\$13,419,742

Non-U.S. Investment Securities at Fair Value — OPEB Trust*As of June 30, 2019*

(Dollars in Thousands)

Currency	Equity	Fixed Income	Total
AFRICA			
Liberian Dollar	\$—	\$3	\$3
South African Rand	4,243	4,287	8,530
AMERICAS			
Argentine Peso	250	175	425
Brazilian Real	5,553	5,014	10,567
Canadian Dollar	19,218	5,285	24,503
Cayman Islands Dollar	—	876	876
Chilean Peso	749	1,742	2,491
Colombian Peso	312	3,450	3,762
Dominican Peso	—	96	96
Mexican Peso	1,872	5,527	7,399
Panamanian Balboa	—	76	76
Peruvian New Sol	250	1,778	2,028
Uruguay Peso	—	158	158
ASIA			
Australian Dollar	13,664	428	14,092
Chinese Renminbi	21,152	—	21,152
Hong Kong Dollar	7,051	—	7,051
Indian Rupee	6,988	—	6,988
Indonesian Rupiah	1,560	4,976	6,536
Japanese Yen	46,734	478	47,212
Malaysian Ringgit	1,622	2,971	4,593
New Zealand Dollar	686	—	686
Pakistan Rupee	62	—	62
Philippine Peso	811	270	1,081
Singapore Dollar	2,683	8	2,691
South Korean Won	9,172	116	9,288
Taiwan Dollar	8,423	—	8,423
Thailand Baht	2,246	4,248	6,494
EUROPE			
British Pound Sterling	32,196	2,852	35,048
Czech Republic Koruna	125	2,127	2,252
Danish Krone	3,307	55	3,362
Euro	59,025	7,191	66,216
Hungarian Forint	187	2,232	2,419

Non-U.S. Investment Securities at Fair Value — OPEB Trust (continued)*As of June 30, 2019*

(Dollars in Thousands)

Currency	Equity	Fixed Income	Total
Norwegian Krone	1,685	138	1,823
Polish Zloty	811	4,490	5,301
Romanian Leu	—	1,204	1,204
Russian Ruble	2,621	3,976	6,597
Swedish Krona	5,927	193	6,120
Swiss Franc	16,534	—	16,534
MIDDLE EAST			
Egyptian Pound	125	—	125
Iraqi Dinar	—	217	217
Israeli New Shekel	1,435	32	1,467
Jordanian Dinar	—	7	7
Qatari Rial	686	—	686
Saudi Riyal	998	—	998
Turkish Lira	437	1,773	2,210
UAE Dirham	499	—	499
Total Investment Securities Subject to Foreign Currency Risk	\$281,899	\$68,449	\$350,348

Non-U.S. Investment Securities at Fair Value — OPEB Trust*As of June 30, 2018*

(Dollars in Thousands)

Currency	Equity
AFRICA	
South African Rand	\$3,334
AMERICAS	
Brazilian Real	2,969
Canadian Dollar	14,114
Chilean Peso	594
Colombian Peso	228
Mexican Peso	1,553
Peruvian New Sol	183
ASIA	
Australian Dollar	10,095
Chinese Renminbi	15,941
Hong Kong Dollar	4,933
Indian Rupee	4,887
Indonesian Rupiah	1,005
Japanese Yen	36,587
Malaysian Ringgit	1,279
New Taiwan Dollar	6,532
New Zealand Dollar	457
Pakistan Rupee	91
Philippine Peso	503
Singapore Dollar	1,918
South Korean Won	7,856
Thai Baht	1,188
EUROPE	
British Pound Sterling	26,355
Czech Republic Koruna	91
Danish Krone	2,512
Euro	45,905
Hungarian Forint	137
Norwegian Krone	1,325
Polish Zloty	594
Russian Ruble	1,690
Swedish Krona	4,339
Swiss Franc	10,551
MIDDLE EAST	
Egyptian Pound	137
Israeli New Shekel	1,051
Qatari Rial	411
Turkish Lira	411
UAE Dirham	320
Total Investment Securities Subject to Foreign Currency Risk	\$212,076

NOTE H — Securities Lending Program

The Board of Investments' policies authorize LACERA to participate in a securities lending program. Securities lending is an investment management activity that mirrors the fundamentals of a loan transaction. Securities are lent to brokers and dealers (borrower), and in turn, LACERA receives cash and non-cash collateral. When cash collateral is received, the income that is generated from securities lending has two sources: lending and reinvestment. LACERA pays the borrower interest on the collateral and invests the collateral with the goal of earning a higher yield than the interest rate paid to the borrower. When non-cash collateral is received, the borrower pays a fee for borrowing the security.

LACERA's securities lending program is managed by two parties: LACERA's custodian bank, State Street Bank and Trust, and a third-party lending agent, Goldman Sachs Agency Lending (GSAL). State Street Bank and Trust lends LACERA's non-U.S. equities, U.S. Treasury, and U.S. Agency securities. GSAL lends LACERA's U.S. equities and corporate bonds. Collateralization is set on non-U.S. loans at 105 percent and on U.S. loans at 102 percent of the market value of securities on loan.

State Street Global Advisors invests the collateral received from both lending programs. The collateral is invested in short-term highly liquid instruments. The maturities of the investments made with cash collateral typically do not match the maturities of their securities loans. Loans are marked-to-market daily, so that if the market value of a security on loan rises, LACERA receives additional collateral. Conversely, if the market value of a security on loan declines, then the borrower receives a partial return of the collateral. Earnings generated in excess of the interest paid to the borrowers represent net income. LACERA shares this net income with the two lending agents based on contractual agreements.

Under the terms of their lending agreements, both lending agents provide borrower default indemnification in the event a borrower does not return securities on loan. The terms of the lending agreements entitle LACERA to terminate all loans upon the occurrence of default and purchase a like amount of "replacement securities" when loaned securities are not returned. LACERA does not have the ability to pledge assets received as collateral without a borrower default. In the event the purchase price of replacement securities exceeds the amount of collateral, the lending agent is liable to LACERA for the difference, plus interest. Either LACERA or the borrower of the security can terminate a loan on demand.

At fiscal year-end, LACERA had no credit risk exposure to borrowers, because the amount of collateral received exceeded the value of securities on loan. LACERA had no losses on securities lending transactions resulting from the default of a borrower for the fiscal years ended June 30, 2019 and 2018.

As of June 30, 2019, the fair value of securities on loan was \$927.1 million, with a value of cash collateral received of \$814.8 million and non-cash collateral of \$136.4 million. As of June 30, 2018, the fair value of securities on loan was \$1.6 billion, with a value of cash collateral received of \$1.2 billion and non-cash collateral of \$425.6 million. LACERA's income, net of expenses from securities lending, was \$4.5 million and \$5.7 million for the fiscal years ended June 30, 2019 and 2018, respectively.

The following table shows the fair value of securities on loan as well as cash and non cash collateral received.

Securities Lending

As of June 30, 2019 and 2018

(Dollars in Thousands)

	2019				2018		
Securities on Loan	Fair Value of Securities on Loan	Cash Collateral Received	Non-Cash Collateral Received	Calculated Mark ¹	Fair Value of Securities on Loan	Cash Collateral Received	Non-Cash Collateral Received
U.S. Equity	\$197,819	\$199,522	\$—	\$—	\$255,378	\$262,05	\$—
U.S. Fixed Income	674,828	604,323	90,445	115	1,230,315	913,980	369,603
Non-U.S. Equity	54,423	10,984	45,906	1,204	66,789	15,200	56,016
Total	\$927,070	\$814,829	\$136,351	\$1,319	\$1,552,482	\$1,191,2	\$425,619

⁽¹⁾ Calculated Mark is performed daily, and it is the amount LACERA will collect from the borrower (if the amount is positive), or payment to the borrower (if the amount is negative), to bring the collateralization to appropriate levels based on market value. There was no Calculated Mark balance required for June 30, 2018.

NOTE I — Derivative Financial Instruments

LACERA's Investment Policy Statement and Manager Guidelines allow the use of derivatives by certain investment managers. Derivatives are financial instruments that derive their value, usefulness, and marketability from an underlying instrument that represents direct ownership of an asset or an obligation of an issuer whose payments are based on or derived from the performance of some agreed-upon benchmark. Generally, investment guidelines require managers to mark-to-market derivative positions daily and trade with counterparties with a credit rating of A3/A-, as defined by Moody's Investors Service (Moody's) and Standard & Poor's (S&P), respectively. Gains and losses from derivatives are included in net investment income. The following types of derivatives are permitted: futures, currency forwards, options, and swaps. Given that hedge fund managers may already have discretion to use derivatives in the funds they manage, derivatives for hedge fund investments are discussed in Note O — Hedge Fund Investments.

Futures

Futures are financial agreements to buy or sell an underlying asset at a specified future date and price. Futures are standardized instruments traded on organized exchanges, and they are marked-to-market daily. The futures exchange reduces counterparty credit risk by acting as a central counterparty. It does this by collecting a daily margin payment from one trade participant and crediting it to the other, based on price changes in the underlying asset.

Currency Forwards

Similar to futures agreements, forwards represent an agreement to buy or sell an underlying asset at a specified future date and price. However, forwards are non-standardized agreements tailored to each specific transaction. Payment for the transaction is generally delayed until the settlement or expiration date. Forward contracts are privately negotiated and do not trade on a centralized exchange; therefore, they are considered "over the counter" instruments. Currency forward contracts are used to manage currency exposure, implement the passive currency hedge, and facilitate the settlement of international security purchases and sales.

Currency Forwards Analysis

As of June 30, 2019

(Dollars in Thousands)

Currency Name	Options	Currency Forward Contracts		Swaps	Total Exposure
		Net Receivables	Net Payables		
Argentine Peso	\$—	\$1	(\$89)	\$—	(\$88)
Australian Dollar	—	1,401	2,654	—	4,055
Brazilian Real	—	—	—	1,184	1,184
British Pound Sterling	(35)	538	20,924	(1,520)	19,907
Canadian Dollar	—	1,189	(9,921)	—	(8,732)
Danish Krone	—	121	(1,033)	—	(913)
Euro	(198)	2,697	(17,149)	(990)	(15,641)
Hong Kong Dollar	—	36	(316)	—	(280)
Israeli New Shekel	—	36	(155)	—	(119)
Japanese Yen	—	114	(24,858)	(982)	(25,726)
Mexican Peso	—	(2)	(70)	(205)	(277)
New Zealand Dollar	—	94	(214)	—	(120)
Russian Ruble	—	—	2	—	2
Norwegian Krone	—	101	(137)	—	(36)
Singapore Dollar	—	84	(83)	—	2
Swedish Krona	—	339	(1,609)	—	(1,270)
Swiss Franc	—	382	(10,466)	—	(10,084)
Total	(\$233)	\$7,131	(\$42,520)	(\$2,513)	(\$38,136)

Options

An option contract is a type of derivative in which a buyer (purchaser) has the right, but not the obligation, to buy or sell a specified amount of an underlying security at a fixed price by exercising the option before its expiration date. The seller (writer) has an obligation to buy or sell the underlying security if the buyer decides to exercise the option.

Swaps

A swap is an agreement between two or more parties to exchange a sequence of cash flows over a period of time in the future. The cash flows exchanged by the counterparties are tied to a notional amount. A swap agreement specifies the time period over which the periodic payments will be exchanged. The fair value represents the gains or losses since the prior mark-to-market.

The Investment Derivatives schedule below reports the fair value balances, changes in fair value, and notional amounts of derivatives outstanding as of and for the year ended June 30, 2019, classified by type.

Investment Derivatives

As of June 30, 2019

(Dollars in Thousands)

Derivative Type	Net Appreciation/ (Depreciation) in Fair Value	Fair Value	Notional Value (Dollars)	Notional Shares (Units)
Commodity Futures Long	(\$150,352)	\$—	\$—	435,361
Commodity Futures Short	59,819	—	—	(33,747)
Credit Default Swaps Bought	(1,606)	(9,509)	136,585	—
Credit Default Swaps Written	590	618	22,574	—
Fixed Income Futures Long	57,454	—	—	953,013
Fixed Income Futures Short	(35,089)	—	—	(504,947)
Fixed Income Options Bought	2,558	36	—	38,600
Fixed Income Options Written	1,152	(74)	—	(255,602)
Futures Options Bought	(7,085)	2,123	—	12,094
Futures Options Written	13,802	(1,417)	—	(8,228)
FX Forwards	154,854	(35,389)	7,617,475	—
Pay Fixed Interest Rate Swaps	(47,054)	(32,205)	1,082,132	—
Receive Fixed Interest Rate Swaps	8,634	3,963	222,420	—
Rights	(765)	33	3,728	—
Total Return Swaps Bond	(6,049)	(1,263)	73,135	—
Total Return Swaps Equity	(32,778)	11,551	(518,403)	—
Warrants	(3)	16	6,212	—
Total	\$18,082	(\$61,517)	\$8,645,858	636,544

All investment derivative positions are included as part of Investments at Fair Value in the Statement of Fiduciary Net Position. All changes in fair value are reported as part of Net Appreciation/(Depreciation) in Fair Value of Investments in the Statement of Changes in Fiduciary Net Position.

Investment information was provided by LACERA's investment managers and custodian bank, State Street Bank and Trust.

Counterparty Credit Risk

LACERA is exposed to counterparty credit risk on investment derivatives that are traded over the counter and are reported in asset positions. Derivatives exposed to counterparty credit risk include currency forward contracts and certain swap agreements. To minimize counterparty credit risk exposure, LACERA's investment managers continually monitor credit ratings of counterparties. In addition, collateral provided by the counterparty reduces LACERA's counterparty credit risk exposure. Should there be a counterparty failure, LACERA would be exposed to the loss of the fair value of derivatives that have unrealized gains and any collateral provided to the counterparty, net of applicable netting arrangements. LACERA requires investment managers to have Master Agreements in place that permit

netting in order to minimize credit risk. Netting arrangements provide LACERA with a legal right of setoff in the event of bankruptcy or default by the counterparty.

The schedule displays the fair value of investments with each counterparty's S&P, Fitch, and Moody's credit rating by counterparty's name alphabetically.

Counterparty Credit Risk Analysis

As of June 30, 2019

(Dollars in Thousands)

Counterparty Name	Total Fair Value	S&P Rating	Fitch Rating	Moody's Rating
Bank of America CME	\$83	A-	A+	A2
Bank of America ICE	2	A-	A+	A2
Barclays Bank PLC	55	A	A+	A2
Barclays Bank PLC Wholesale	18	A	A+	A2
BNP Paribas SA	591	A+	A+	Aa3
Citibank N.A.	2,899	A+	A+	Aa3
Citigroup Global Markets Inc	36	BBB+	A	A3
Citigroup Global Markets LCH	75	BBB+	A	A3
Credit Suisse FOB CME	1	A+	A	A1
Credit Suisse FOB LCH	568	A+	A	A1
Credit Suisse International	1,359	A+	A	A1
Credit Suisse Securities (USA) LLC	463	A+	A	A1
Deutsche Bank AG	2,752	BBB+	BBB	A3
Goldman Sachs CME	2,932	BBB+	A	A3
Goldman Sachs International	18,570	A+	A	A1
HSBC Bank USA	2	AA-	AA-	Aa3
JP Morgan Chase Bank	3,523	A+	AA	Aa2
JP Morgan Chase Bank N.A.	533	A+	AA	Aa2
Macquarie Bank Limited	1,660	A	A	A2
Merrill Lynch International	812	A-	A+	A2
Morgan Stanley and Co. International	62	A+	NR	A1
Morgan Stanley Capital Services Inc	51	BBB+	A	A3
Natwest Markets Plc	4,241	A-	A	Baa2
State Street Bank And Trust Company	80	AA-	AA	Aa3
UBS AG	11,790	A+	AA-	Aa3
Westpac Banking Corporation	179	AA-	AA-	Aa3
Total	\$53,337			

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. Interest Rate Swaps are an example of an investment that has a fair value that is highly sensitive to interest rate changes. These investments are disclosed in the following table:

Interest Rate Risk Analysis

As of June 30, 2019

(Dollars in Thousands)

Investment Type	Notional Value (Dollar)	Notional Shares (Units)	Fair Value	Investment Maturity (In Years)				
				Less Than 1	1 - 5	6 - 10	More Than 10	No Maturity
Credit Default Swaps Bought	\$136,585		(\$9,509)	\$—	(\$9,509)	\$—		\$—
Credit Default Swaps Written	22,574		618	—	608	—	9	—
Fixed Income Options Bought	—	38,600	36	36	—	—		—
Fixed Income Options Written	—	(255,602)	(74)	(72)	(1)	—	(1)	—
Pay Fixed Interest Rate Swaps	1,082,132		(32,205)	—	(10,106)	(7,664)	(14,436)	—
Receive Fixed Interest Rate Swaps	222,420		3,963	1,184	273	181	2,325	—
Total Return Swaps Bond	73,135		(1,263)	(1,263)	—	—		—
Total Return Swaps Equity	(518,403)		11,551	11,610	(59)	—		—
Total	\$1,018,443	(\$217,002)	(\$26,883)	\$11,495	(\$18,794)	(\$7,483)	(\$12,103)	\$—

NOTE J — Special Purpose Entities

LACERA uses several different types of Special Purpose Entities (SPEs) in its investment portfolio.

As of June 30, 2019, the LACERA real estate portfolio utilized various SPEs including 44 Title Holding Corporations (THCs) and 57 Limited Liability Companies (LLCs). As of June 30, 2018, the portfolio included 70 THCs and 54 LLCs.

The following is a summary of the THCs' and LLCs' financial positions.

Title Holding Corporations and Limited Liability Companies Financial Position

As of June 30, 2019 and 2018

(Dollars in Thousands)

	2019	2018
Assets	\$7,646,302	\$8,243,751
Less: Liabilities	(2,860,234)	(2,971,880)
Net Assets	\$4,786,068	\$5,271,871
Net Income	\$350,403	\$248,282

In March 2011, the LACERA Board of Investments approved allocating \$200 million to each of two managers for investment in commercial real estate debt. The managers were Cornerstone Real Estate Advisors (now known as Barings Real Estate Advisors, the real estate investment unit of Barings LLC) and Quadrant Real Estate Advisors LLC. In July 2012 and June 2013, additional allocations of \$200 million and \$100 million were provided to the Barings account, bringing the total investable equity commitment to \$500 million. Furthermore, in July 2012, an additional allocation of \$100 million was made to the Quadrant account, bringing the total investable equity commitment to \$300 million. In September 2014, a \$250 million commitment was added to the Barings account for the purpose of backstopping a subscription facility, though this equity is not considered investable.

Portfolio net assets increase when new loans are originated from LACERA's portfolio and such assets decrease when loans are paid back by the borrower.

As presented in the Investment Section, Real Estate assets are included in the following functional category portfolios: Growth, Credit, and Real Assets and Inflation Hedges.

The following is a summary of the Debt Program's financial position.

Debt Program Financial Position

As of June 30, 2019 and 2018

(Dollars in Thousands)

	2019	2018
Assets	\$401,540	\$230,190
Less: Liabilities	(197,346)	(111,878)
Net Assets	\$204,194	\$118,312
Net Income	\$15,306	\$25,548

NOTE K — Related Party Transactions

Office Lease

In 1991, LACERA, as the sole shareholder, formed a Title Holding Corporation (THC) to acquire Gateway Plaza, a 282,000 square foot 13-story office building located in Pasadena, California, which serves as the LACERA headquarters. At that time, LACERA entered into its original lease agreement with the THC to occupy approximately 85,000 square feet of office space. Under the terms of the agreement, LACERA's base rent is abated via a credit to base rent. However, LACERA is required to pay its proportionate share of the building's operating costs and property taxes as defined in the lease agreement.

Over time, numerous lease agreement amendments were executed which adjusted the rentable square footage and lease expiration dates. The Fifteenth Amendment to the Office Lease was completed on October 1, 2018 and the latest, the Sixteenth Amendment, was dated March 31, 2019. The amendments resulted in a net decrease of total rentable space from 126,157 to 125,525 square feet and maintained the lease's existing expiration date of December 31, 2020.

Total operating expenses charged to LACERA were approximately \$2.1 million and \$2.2 million for the fiscal years ended June 30, 2019 and 2018, respectively.

Notes Receivable

LACERA had a notes receivable balance of approximately \$22.5 million from one of its THCs for the fiscal year ended June 30, 2018. However, this note was paid off when the property was sold on October 10, 2018.

See Note J - Special Purpose Entities, for additional information regarding LACERA's real estate portfolio investments.

NOTE L — Administrative Expenses

The LACERA Board of Retirement and Board of Investments annually adopt the operating budget for the administration of LACERA. The administrative expenses are charged against the investment earnings of the Pension Plan.

Beginning in fiscal year 2012, LACERA implemented a provision of the CERL which shifted the administrative budget limitation from an asset-based cap to a more stable liability-based cap. This CERL provision states that the annual budget for administrative expenses of a CERL retirement benefits plan may not exceed twenty-one hundredths of one percent (0.21 percent) of the actuarial accrued liability of the plan.

Expenses for computer software, hardware, and computer technology consulting services relating to such expenditures are included in the cost of administration. Pursuant to the CERL, the cost of internal legal representation by LACERA's Legal Office is not to exceed one-hundredth of one percent (0.01 percent) of retirement benefits plan assets in any budget year. LACERA's costs for legal representation is within the statutory limit and included in administrative expenses.

Under applicable sections of the CERL, both LACERA Boards approved the operating budgets for fiscal years ended June 30, 2019 and June 30, 2018, which were prepared based upon the twenty-one hundredths of one percent (0.21 percent) CERL limit.

The following budget-to-actual analysis of administrative expenses schedule is based upon the budget, as approved by the LACERA governing boards, in comparison to actual administrative expenses.

Budget-to-Actual Analysis of Administrative Expenses

As of June 30, 2019 and 2018

(Dollars in Thousands)

	2019	2018
Basis for Budget Calculation, Actuarial Accrued Liability ¹	\$65,310,803	\$62,199,214
Maximum Allowable for Administrative Expenses	137,153	130,618
Total Statutory Budget Appropriation	\$137,153	\$130,618
Operating Budget Request	88,622	83,555
Administrative Expenses	(82,906)	(78,181)
Underexpended Operating Budget	\$5,716	\$5,374
Administrative Expenses	82,906	78,181
Basis for Budget Calculation	65,310,803	62,199,214
Administrative Expenses as a Percentage of the Basis for Budget Calculation	0.13%	0.13%
Limit per CERL	0.21%	0.21%
Administrative Expenses	82,906	78,181
Net Position Restricted for Benefits	\$58,294,836	\$56,299,982
Administrative Expenses as a Percentage of Net Position Restricted for Benefits	0.14%	0.14%

⁽¹⁾ The 2019 and 2018 budget calculations are based on the actuarial accrued liability as of June 30, 2017, and June 30, 2016, respectively.

NOTE M — Commitments and Contingencies

Litigation

LACERA is a defendant in various lawsuits and other claims arising in the ordinary course of its operations. The management and legal counsel of LACERA estimate the ultimate outcome of such litigation will not have a material effect on LACERA's financial statements.

Securities Litigation

In 2001, the LACERA Board of Investments adopted a Securities Litigation Policy in response to incidents of corporate corruption, fraud, and misconduct at publicly traded companies held by LACERA in its investment portfolio. The policy requires LACERA's Legal Office to monitor securities fraud class actions and to actively pursue recovery of LACERA's losses in accordance with the policy.

In 2010, the U.S. Supreme Court held that certain fraud provisions of the U.S. securities laws could not be applied to securities purchased outside the U.S. Therefore, the LACERA Board of Investments adopted a global policy to ensure that LACERA continues to meet its fiduciary duty by identifying, monitoring, and evaluating securities actions in which the fund has an interest both foreign and domestic and pursuing such claims when and in a manner the LACERA Board of Investments determines is in the best interest of the fund.

Compliance with the Securities Litigation Policy is part of the efforts of the LACERA Board of Investments, with the assistance of the LACERA Legal Office, to protect the financial interests of LACERA and its members.

Leases

Equipment: LACERA leases equipment under lease agreements that expire over the next five years. The annual commitments and operating expenses for such equipment leases were approximately \$263,000 and \$292,000 in fiscal years 2019 and 2018, respectively.

Office Lease: The LACERA office space lease agreement was originally entered in January 1991. Subsequent amendments were made with the latest one dated March 31, 2019. LACERA agreed to reduce its leased space, while maintaining the existing lease expiration date of December 31, 2020.

LACERA's lease agreement is also discussed in Note K — Related Party Transactions. The total operating expenses for leasing the building premises are \$2.1 million and \$2.2 million in fiscal years 2019 and 2018, respectively.

Capital Commitments

LACERA real estate, private equity, hedge fund, and activist investment managers identify and acquire investments on a discretionary basis. Investment activity is approved by the LACERA Board of Investments and is controlled by investment management agreements which identify limitations on each investment manager's discretion. Such investment activities are further restricted by the amount of capital allocated or committed to each manager.

As of June 30, 2019, outstanding capital commitments to the various investment managers, as approved by the LACERA Board of Investments, totaled \$5.3 billion.

NOTE N — Other Post-Employment Benefits (OPEB) Program

Program Description

In April 1982, the County adopted an ordinance pursuant to the County Employees Retirement Law of 1937 (CERL) that provided for a retiree healthcare insurance program and death/burial benefits for retired employees and their eligible dependents. In 1982, the County and LACERA entered into an Agreement whereby LACERA would administer the program subject to the terms and conditions of the Agreement. In 1994, the County amended the Agreement to continue to support LACERA's retiree insurance benefits program, regardless of the status of the active member insurance.

In June 2014, the LACERA Board of Retirement approved the County's request to modify the agreement to create a new retiree healthcare benefits program in order to lower its costs. Structurally, the County segregated all the then current retirees and employees into LACERA-administered Retiree Healthcare Benefits Program (Tier 1) and placed all employees hired after June 30, 2014 into Los Angeles County Retiree Healthcare Benefits Program (Tier 2).

On June 17, 2014, the Los Angeles County Board of Supervisors adopted changes to Los Angeles County Code Title 5 – Personnel, which established the Benefit Provisions for Tier 2.

A significant difference included in this modification concerns LACERA's administrative responsibility for the Retiree Healthcare Program. Under Tier 1, LACERA will continue its agreed-upon role as Program Administrator for retiree healthcare benefits as governed by the 1982 Agreement. Under Tier 2, LACERA is responsible for administering this program for as long as the County desires. The County may, at any time, choose another organization to administer the Tier 2 Program.

Membership

Employees are eligible for the OPEB Program if they are members of LACERA and retire from the County of Los Angeles, the Superior Court, or a participating Outside District. Healthcare benefits are also offered to qualifying survivors of deceased retired members and qualifying survivors of deceased active employees who were eligible to retire at the time of death. Eligibility to receive a pension benefit is a prerequisite for retiree healthcare and death benefits; therefore, eligibility and qualifications applicable to retiree healthcare and death/ burial benefits are substantially similar to pension benefits. A Summary of Major OPEB Program Provisions is available upon request.

LACERA Membership — OPEB Medical and Dental/Vision Benefits*As of June 30, 2019 and 2018*

	2019		2018	
	Medical	Dental/ Vision	Medical	Dental/ Vision
Retired Participants				
Retired Members and Survivors	51,216	52,499	50,052	51,225
Spouses and Dependents	26,147	29,949	25,343	28,935
Total Retired	77,363	82,448	75,395	80,160
Inactive Members — Vested	8,618	8,618	8,459	8,459
Active Members — Vested ²	72,660	72,660	72,020	72,020
Total Membership Eligible for Benefits	158,641	163,726	155,874	160,639

LACERA Membership — OPEB Death Benefits*As of June 30, 2019 and 2018*

	2019	2018
Paid Death Benefits	2,538	2,640
Retired with Eligibility for Death Benefits ¹	57,409	56,003
Active Members — Vested ²	72,660	72,020
Total Membership Eligible for Benefits	132,607	130,663

⁽¹⁾ Survivors, spouses and dependents are not eligible for this death benefit.⁽²⁾ Active member counts exclude active members that are non-vested and therefore ineligible for OPEB benefits.**Benefit Provisions**

The OPEB Program offers members an extensive choice of medical plans as well as two dental/vision plans. The medical plans are either HMOs or indemnity plans, and some are designed to work with Medicare benefits, such as the Medicare Supplement or Medicare HMO plans. Coverage is available regardless of preexisting medical conditions. Under Tier 2, retirees who are eligible for Medicare are required to enroll in that program. Medicare-eligible retirees and their covered dependents must enroll in Medicare Parts A and B and in a Medicare HMO plan or Medicare Supplement plan under Tier 2.

Medical and Dental/Vision: Program benefits are provided through third party insurance carriers with the participant's cost for medical and dental/vision insurance varying according to the years of retirement service credit with LACERA, the plan selected, and the number of persons covered. The County contribution subsidizing the participant's cost starts at 10 years of eligible service credit in the amount of 40 percent of the lesser of the benchmark plan rate or the premium of the plan in which the retiree is enrolled. For each year of eligible retirement service credit earned beyond 10 years, the County contributes four percent per year, up to a maximum of 100 percent for a member with 25 years of service credit. The County contribution can never exceed the premium of the benchmark plans. Members are responsible for premium amounts above the benchmark plans, including those with 25 or more years of service credit.

Under Tier 1, the County subsidy is based on the coverage elected by the retiree. The benchmark plans are Anthem Blue Cross Plans I and II for medical and Cigna Indemnity Dental/Vision for dental and vision. Under Tier 2, the County subsidy is based on retiree-only coverage. Tier 2 medical benchmark

plans are Anthem Blue Cross Plans I and II for Medicare-ineligible members, Anthem Blue Cross Plan III for Medicare-eligible members, and Cigna Indemnity Dental/Vision for dental and vision plans.

Medicare Part B: The County reimburses the member's Medicare Part B Standard rate premiums paid by member to Social Security for Part B coverage, subject to annual approval by the County Board of Supervisors. Eligible members and their dependents must be currently enrolled in both Medicare Part A and Medicare Part B and enrolled in a LACERA-administered Medicare HMO Plan or Medicare Supplement Plan and meet all of the qualifications. Under Tier 2, the County reimburses for Medicare Part B (at the standard rate) for eligible members or eligible survivors only.

Disability: If a member is granted a service-connected disability retirement and has less than 13 years of service, the County contributes the lesser of 50 percent of the benchmark plan rate or the premium of the plan in which the retiree is enrolled. Under Tier 2, the benchmark plan rate is based on retiree-only premiums. A member with 13 years of service credit receives a 52 percent subsidy. This percentage increases 4 percent for each additional completed year of service, up to a maximum of 100 percent.

Death/Burial Benefit: There is a one-time lump-sum \$5,000 death/burial benefit payable to the designated beneficiary upon the death of a retiree, reimbursed to LACERA by the County. Active and vested terminated (deferred) members are eligible for this benefit once they retire. Spouses and dependents are not eligible for this death benefit.

Healthcare Reform

In March 2010, President Obama signed into law the Affordable Care Act (ACA). The ACA impacts the County's future healthcare liabilities. Estimated ACA fees are included in the OPEB liabilities. As potential impacts become clearer, they will be reflected in the OPEB assumptions. However, as a "retiree only" group plan, LACERA is exempt from many of the provisions implemented thus far, including these significant provisions:

- Dependent Coverage for Adult Children up to Age 26
- Elimination of Lifetime Maximum Limits
- No Cost-Sharing for Approved Preventive Services

Other provisions of the ACA may or may not impact the Retiree Healthcare Benefits Program as these provisions and any governing regulations are clarified and implemented.

Eligible Dependent Child Age Limit Increased to Age 26: The plan sponsor, the County of Los Angeles, approved an extension of the dependent children age limit to age 26 under the Retiree Healthcare Program, regardless of a dependent child's marital or student status. This is a result of Senate Bill (SB) 1088. Until July 1, 2014, SB 1088 exempted retiree-only plans, such as LACERA's from this provision. It required health plan carriers to offer the coverage to dependents up to age 26 but does not obligate the plan sponsor, the County of Los Angeles, to pay for coverage up to age 26. However, in March 2015, the County determined that it will pay for dependent coverage up to age 26 under the contribution method described above.

Summary of Significant Accounting Policies — OPEB Program

Basis of Presentation: OPEB activity is reported within two distinct funds, the OPEB Agency Fund and the OPEB Trust Fund, at LACERA, in accordance with GASB Statement No. 74 (GASB 74).

The OPEB Agency Fund accounts for assets held as an agent on behalf of others. The funds held within the OPEB Agency Fund do not meet the definition of a qualifying OPEB Trust under GASB 74 and are not used to reduce the employers' Total OPEB Liability. However, the ownership of the OPEB Agency

Fund belongs to the County, Court and the participating Outside District employers. This fund is custodial in nature and does not measure the results of operations. Assets and liabilities are recorded using the accrual basis of accounting. Receivables include contributions due as of the reporting date. Payables include premium payments and refunds due to members and accrued investment and administrative expenses.

OPEB Trust — Agent Plan: The County, Superior Court, and LACERA have established separate accounts within the LACERA OPEB Trust to pre-fund their own OPEB Program liabilities. For better precision in allocating and accounting for these liabilities, as of July 1, 2018, the OPEB Program transitioned from a cost-sharing plan structure to an agent multiple-employer plan (agent plan) structure. Under the previous cost sharing plan structure, OPEB Program liabilities and costs were determined with respect to the total LACERA OPEB Program, rather than separately for each employer. An agent plan structure, however, determines program liabilities and costs directly by employer and allocates shared expenses. This provides employers liability and cost information that is more precise for their active, vested terminated, and retiree population, which helps them make informed decisions to better manage these OPEB costs. In addition, assets, while commingled for investment purposes, are separately tracked for each participating employer. The July 1, 2018 OPEB valuation marked the first actuarial valuation performed under an agent plan reflecting the funding information at the individual agent (employer) level.

For additional information pertaining to the OPEB Trust, see Note Q. Refer to Note R for disclosures regarding the OPEB Program cost sharing plan.

Investment Valuation: Investments are carried at fair value, which are derived from quoted market prices. For publicly traded securities and issues of the United States Government and its agencies, the most recent sales price as of fiscal year end is used.

Contributions Authority: Pursuant to the 1982, 1994, and 2014 Agreements between the County and LACERA, the parties agreed to the continuation of the health insurance benefits then in existence. The County agreed to subsidize a portion of the insurance premiums of certain retired members and their eligible dependents based on the member's length of service. The County further agreed to maintain the status quo of existing benefits provided to participants. As part of the 2014 Agreement, the County modified the existing healthcare benefit plan, which created a new benefit structure, Tier 2, for all employees hired after June 30, 2014. LACERA agreed not to change retired members' contributions toward insurance premiums or modify medical benefit levels without the County's prior consent.

Premium Payments: During the fiscal years ended June 30, 2019 and 2018, respectively, premium payments of \$599.2 million and \$557.8 million were made to insurance carriers. These premiums were funded by employer subsidy payments of \$551.4 million and participant payments of \$47.8 million for the fiscal year ended 2019. The employer subsidy payments for the fiscal year ended 2018 were \$513.0 million with participant payments of \$44.8 million.

In addition, \$67.8 million and \$8.6 million was funded by employer subsidy payments for Medicare Part B reimbursements and death/burial benefits, respectively, for the fiscal year ended June 30, 2019 and \$61.7 million and \$8.7 million for these benefits, respectively, during the fiscal year ended June 30, 2018.

A Premium Holiday is a temporary period in which the monthly premium costs for both the Program Sponsor (County) and affected members are waived. Affected members are those retirees enrolled in

certain medical benefit plans who also pay their share of the monthly premiums. There was no Premium Holiday during fiscal year 2019.

Excise Tax: The ACA originally contained provisions to assess an excise tax in 2018 on employer-provided health insurance benefits that the ACA determined to be an excess benefit. The Consolidated Appropriations Act of 2016 was signed into law in December 2015, delaying the assessment of the Excise Tax until 2020. While the tax was originally non-tax deductible, the December 2015 changes made it tax deductible for employers who pay it. Additional legislation passed in January 2018 further delaying the Excise Tax implementation until 2022.

Milliman last estimated the impact of the Excise Tax on the projection of benefits in the measurement of the County's OPEB Actuarial Accrued Liability for funding purposes as of July 1, 2017 to be approximately \$1.41 billion. Milliman recognized Excise Tax impact for funding purposes, and this \$1.41 billion impact is reflected throughout the July 1, 2018 OPEB valuation.

The actuarial information prepared in accordance with GASB 74 also incorporates the impact of this Excise Tax.

NOTE O — Hedge Fund Investments

The hedge fund category of investments is composed of strategies that may: 1) invest in securities within LACERA's existing asset classes or across multiple asset classes; 2) have an absolute return objective; and 3) include the ability to use specialized techniques, such as leverage and short-selling, and instruments such as derivatives.

As of the fiscal year end, LACERA employed two hedge fund of funds managers, Grosvenor Capital Management (GCM) and Goldman Sachs Asset Management (GSAM), with discretion to construct hedge fund portfolios. The hedge fund of funds managers identify, select, implement, and monitor portfolios consistent with LACERA's stated objectives, constraints, and Investment Policy Statement. Additionally, LACERA invested directly with five investment managers as part of a Direct hedge funds portfolio.

LACERA's Investment Policy Statement establishes the portfolio framework for the hedge funds program. Each underlying investment in the entire hedge fund program is in an entity legally structured to limit liability for each investor to the capital invested by that investor.

The GCM diversified portfolio, GSAM diversified portfolio, and Direct portfolio reside within the Diversified Hedge Funds class under the Risk Reduction and Mitigation functional asset category of LACERA's Total Fund, and the GCM credit portfolio resides within the Credit functional asset category. A prior credit portfolio, also managed by GCM, was liquidated during the fiscal year. For additional information regarding LACERA's investment portfolio and functional categories, see the Investment Section.

The investment performance for this strategy is measured separately from other asset classes. The fair values of assets invested in hedge funds as of June 30, 2019 and June 30, 2018, were \$1.9 billion and \$1.6 billion, respectively.

NOTE P — Fair Value

For the fiscal year ended June 30, 2016, LACERA adopted GASB Statement No. 72, *Fair Value Measurement and Application*. GASB Statement No. 72 was issued to address accounting and financial reporting issues related to fair value measurements and disclosures. LACERA categorizes its fair value measurements within the fair value hierarchy established by Generally Accepted Accounting Principles in the United States of America (GAAP). The hierarchy is based on the valuation inputs used to measure the fair value of the investment securities and assets. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs. Certain investments held by LACERA are valued at net asset value (NAV) per share when an investment does not have a readily determined fair value, provided that the NAV is calculated and used as a practical expedient to estimate fair value in accordance with the requirements of GAAP.

Equity and Fixed Income Securities

Equity securities classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets issued by pricing vendors for these securities. Fixed income and equity securities classified in Level 2 of the fair value hierarchy are valued using prices determined by matrix pricing techniques maintained by the various pricing vendors for these securities. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices. Fixed income and equity securities classified in Level 3 are securities whose stated market price is unobservable by the marketplace; many of these securities are priced by the issuers or industry groups for these securities. Fair value is defined as the quoted market value on the last trading day of the period. These prices are obtained from various pricing sources obtained by LACERA's custodian bank.

Hedge Fund, Private Equity, and Real Estate Funds

Investments in Hedge Fund, Private Equity, and Real Estate funds are valued at estimated fair value, as determined in good faith by the General Partner (GP), in accordance with GAAP fair value principles and in instances where no observable public market values are available. Investments which are estimated at fair value, are initially valued at cost with subsequent adjustments that reflect third party transactions, financial operating results, and other factors deemed relevant by the GP. These assets are reported by LACERA based on the practical expedient allowed under GAAP.

Real Estate Separate Account Investments

Investments in Real Estate are valued at estimated fair value, as determined in good faith by the Investment Manager. These investments are initially valued at cost, with subsequent adjustments that reflect third-party transactions, financial operating results, and other factors deemed relevant by the Investment Manager. Properties are subject to independent third-party appraisals every three years.

LACERA has the following recurring fair value measurements as of June 30, 2019 and 2018:

Investments and Derivatives Measured at Fair Value — Pension Plan

As of June 30, 2019

(Dollars in Thousands)

Investments by Fair Value Level	Total	Quoted Prices in Active Markets for Identical Assets Level 1	Significant Other Observable Inputs Level 2	Significant Unobservable Inputs Level 3
Fixed Income Securities				
Asset-Backed Securities	\$506,275	\$—	\$506,194	\$81
Corporate and Other Credit	3,121,985	—	3,116,458	5,527
Municipal / Revenue Bonds	58,251	—	58,251	—
Non-U.S. Fixed Income	85,780	—	85,780	—
Private Placement Fixed Income	1,950,914	—	1,950,914	—
U.S. Government Agency	2,144,550	—	2,144,550	—
U.S. Treasuries	1,605,167	—	1,605,167	—
Pooled Investments	7,243	7,243	—	—
Whole Loan Mortgages	27,205	—	—	27,205
Total Fixed Income Securities	\$9,507,370	\$7,243	\$9,467,314	\$32,813
Equity Securities				
Non-U.S. Equity	\$1,811,817	\$1,810,709	\$1,100	\$8
Pooled Investments	285,532	285,532	—	—
U.S. Equity	13,932,458	13,920,038	11,499	921
Total Equity Securities	\$16,029,807	\$16,016,279	\$12,599	\$929
Collateral from Securities Lending	\$814,829	\$—	\$814,829	\$—
Total Investments by Fair Value Level	\$26,352,006	\$16,023,522	\$10,294,742	\$33,742
Investments Measured at Net Asset Value (NAV)				
Fixed Income	\$8,548,547			
Equity	9,805,218			
Hedge Funds	1,890,739			
Private Equity	6,028,265			
Real Estate	6,192,619			
Total Investments Measured at NAV	\$32,465,388			
Total Investments	\$58,817,394			
Derivatives				
Foreign Exchange Contracts	(\$35,389)	\$—	(\$35,389)	\$—
Foreign Fixed Income Derivatives	5,868	(10)	5,878	—
Foreign Equity Derivatives	(223)	(223)	—	—
U.S. Equity Derivatives	1,264	1,264	—	—
U.S. Fixed Income Derivatives	(33,038)	(314)	(32,724)	—
Total Derivatives	(\$61,518)	\$717	(\$62,235)	\$—

Investments Measured at the Net Asset Value — Pension Plan*As of June 30, 2019*

(Dollars in Thousands)

	Fair Value	Unfunded Commitments	Redemption Frequency (If Currently Eligible)	Redemption Notice Period
Commingled Fixed Income Funds ¹	\$8,548,547	\$—	Daily, Monthly or Not Eligible	1-60 days or N/A
Commingled Equity Funds ²	9,805,218	14,544	Daily, Monthly or Not Eligible	1-60 days or N/A
Hedge Funds ³	1,890,739	18,500	Daily, Monthly, Quarterly, Semi-Annual, Annual; Self-Liquidating	5-180 days
Private Equity ⁴	6,028,265	4,337,030	Not Eligible	N/A
Real Estate ⁴	6,192,619	970,531	Quarterly or Not Eligible	30 days+ or N/A
Total Investments Measured at NAV	\$32,465,388			

(1) **Commingled Fixed Income Funds:** Nine fixed income funds are considered commingled in nature. They are valued at the net asset value (NAV) of units held at the end of the period based upon the fair value of the underlying investments. Most of the funds are highly liquid within one month; two of the funds representing 3 percent of Commingled Fixed Income assets have liquidity available at the end of the fund terms which range from three to seven years.

(2) **Commingled Equity Funds:** Thirteen equity funds are considered commingled in nature. They are valued at the NAV of units held at the end of the period based upon the fair value of the underlying investments. Most of the funds are highly liquid within one month; three of these funds representing 5 percent of Commingled Equity assets have liquidity subject to lock-up periods that limit or prohibit redemptions for the next three to four years.

(3) **Hedge Funds:** This portfolio consists of 70 funds. Hedge Fund investments are valued at NAV per share. When considering liquidity terms, 78 percent of the fund assets are available within 12 months; these funds provide daily, monthly, quarterly, semi-annual, or annual liquidity. Some of these funds are subject to redemption notices that extend the time frame to receive redemptions beyond the next 12 months. The remaining 22 percent of fund assets are in self-liquidating funds which do not permit voluntary redemption/withdrawals or in funds that offer periodic liquidity that extends beyond the next 12 months.

LACERA's Hedge Funds portfolio invests in the following strategies:

- (a) **Macro and Tactical Trading:** This strategy makes investments based on analyses and forecasts of macroeconomic trends, including governmental and central bank policies, fiscal trends, trade imbalances, interest rate trends, inter-country relations, and economic and technical analysis.
- (b) **Equity Long/Short:** This strategy purchases and/or sells equities based on fundamental and/or quantitative analysis and other factors.
- (c) **Credit:** This strategy includes long-biased credit, long/short credit, structured credit, and mortgage credit.
- (d) **Relative Value:** This strategy's main focus is to benefit from valuation discrepancies that may be present in related financial instruments by purchasing and/or shorting these instruments.
- (e) **Multi-Strategy:** This strategy aims to pursue varying strategies in order to diversify risks and reduce volatility.
- (f) **Event Driven:** This strategy seeks to gain an advantage from pricing inefficiencies that may occur in the onset or aftermath of a corporate action or related event.

(4) **Private Equity and Real Estate Funds:** LACERA's Private Equity portfolio consists of 207 funds, investing primarily in Buyout Funds, with some exposure to Venture Capital, Special Situations. Due to contractual limitations, none of the 207 funds are eligible for redemption for up to 10 years. The Real Estate portfolio, composed of 23 commingled funds, invests in both U.S. and Non-U.S. commercial real estate. The fair values of these funds have been determined using net assets valued at the end of the period and net assets valued one quarter in arrears plus current quarter cash flows. Two out of 23 Real Estate funds are eligible for redemption depending upon the availability of cash for redemptions in the fund. Distributions are received as underlying investments within the funds are liquidated, which on average can occur over the span of 5 to 10 years. For Real Estate investments held in separate accounts and debt program investments, See Note J - Special Purpose Entities.

Investments and Derivatives Measured at Fair Value — Pension Plan*As of June 30, 2018*

(Dollars in Thousands)

Investments by Fair Value Level	Total	Quoted Prices in Active Markets for Identical Assets Level 1	Significant Other Observable Inputs Level 2	Significant Unobservable Inputs Level 3
Fixed Income Securities				
Asset-Backed Securities	\$678,777	\$—	\$678,777	\$—
Corporate and Other Credit	4,083,686	—	4,078,272	5,414
Municipal / Revenue Bonds	74,358	—	74,358	—
Non-U.S. Fixed Income	137,594	—	137,594	—
Private Placement Fixed Income	2,067,680	1,104	2,062,720	3,856
U.S. Government Agency	1,842,159	—	1,841,828	331
U.S. Treasuries	1,708,192	—	1,708,192	—
Whole Loan Mortgages	32,850	—	—	32,850
Total Fixed Income Securities	\$10,625,296	\$1,104	\$10,581,741	\$42,451
Equity Securities				
Non-U.S. Equity	\$2,074,878	\$2,074,457	\$—	\$421
Pooled Investments	295,080	295,080	—	—
U.S. Equity	13,130,228	13,122,685	3,865	3,678
Total Equity Securities	\$15,500,186	\$15,492,222	\$3,865	\$4,099
Collateral from Securities Lending	\$1,191,235	\$—	\$1,191,235	\$—
Total Investments by Fair Value Level	\$27,316,717	\$15,493,326	\$11,776,841	\$46,550
Investments Measured at Net Asset Value (NAV)				
Fixed Income	\$5,301,354			
Equity	10,160,905			
Hedge Funds	1,592,126			
Private Equity	5,929,098			
Real Estate	6,326,246			
Total Investments Measured at NAV	\$29,309,729			
Total Investments	\$56,626,446			
Derivatives				
Foreign Exchange Contracts	\$169,907	\$—	\$169,907	\$—
Foreign Fixed Income Derivatives	(2,735)	(251)	(2,484)	—
U.S. Equity Derivatives	(88)	49	(137)	—
U.S. Fixed Income Derivatives	10,672	(7,477)	18,149	—
Total Derivatives	\$177,756	(\$7,679)	\$185,435	\$—

Investments Measured at the Net Asset Value — Pension Plan*As of June 30, 2018*

(Dollars in Thousands)

	Fair Value	Unfunded Commitments	Redemption Frequency (If Currently Eligible)	Redemption Notice Period
Commingled Fixed Income Funds ¹	\$5,301,354	\$—	Daily, Monthly or Not Eligible	1-60 days or N/A
Commingled Equity Funds ²	10,160,905	43,431	Daily, Monthly or Not Eligible	1-60 days or N/A
Hedge Funds ³	1,592,126	—	Daily, Monthly, Quarterly, Semi-Annual, Annual; Self-Liquidating	5-180 days
Private Equity ⁴	5,929,098	3,762,043	Not Eligible	N/A
Real Estate ⁴	6,326,246	335,408	Quarterly or Not Eligible	30 days+ or N/A
Total Investments Measured at NAV	\$29,309,729			

(1) **Commingled Fixed Income Funds:** Nine fixed income funds are considered commingled in nature. They are valued at the net asset value (NAV) of units held at the end the period based upon the fair value of the underlying investments. Most of the funds are highly liquid within one month; two of the funds representing 7 percent of Commingled Fixed Income assets have liquidity available at the end of the fund terms which range from three to seven years.

(2) **Commingled Equity Funds:** Thirteen equity funds are considered commingled in nature. They are valued at the NAV of units held at the end of the period based upon the fair value of the underlying investments. Most of the funds are highly liquid within one month; three of the funds representing 5 percent of Commingled Equity assets have liquidity available subject to lock-up periods that limit or prohibit redemptions for the next three to four years.

(3) **Hedge Funds:** The portfolio consists of 90 funds. Hedge Fund investments are valued at NAV per share. When considering liquidity terms, 77 percent of the fund assets are available within 12 months; these funds provide daily, monthly, quarterly, semi-annual, or annual liquidity. Some of these funds are subject to redemption notices that extend the time frame to receive redemptions beyond the next 12 months. The remaining 23 percent of fund assets are in self-liquidating funds which do not permit voluntary redemption/withdrawals or in funds that offer periodic liquidity that extends beyond the next 12 months.

LACERA's Hedge Funds portfolio invests in the following strategies:

(a) **Macro and Tactical Trading:** This strategy makes investments based on analyses and forecasts of macroeconomic trends, including governmental and central bank policies, fiscal trends, trade imbalances, interest rate trends, inter-country relations, and economic and technical analysis.

(b) **Equity Long/Short:** This strategy purchases and/or sells equities based on fundamental and/or quantitative analysis and other factors.

(c) **Credit:** This strategy includes long-biased credit, long/short credit, structured credit, and mortgage credit.

(d) **Relative Value:** This strategy's main focus is to benefit from valuation discrepancies that may be present in related financial instruments by purchasing and/or shorting these instruments.

(e) **Multi-Strategy:** This strategy aims to pursue varying strategies in order to diversify risks and reduce volatility.

(f) **Event Driven:** This strategy seeks to gain an advantage from pricing inefficiencies that may occur in the onset or aftermath of a corporate action or related event.

(g) **Commodities:** This strategy invests across the global commodity markets based on an analysis of factors, including supply and demand, legislative and environmental policies, trends in growth rates and resource consumption, global monetary and trade policy, geopolitical events and technical factors.

(4) **Private Equity and Real Estate Funds:** LACERA's Private Equity portfolio consists of 250 funds, investing primarily in Buyout Funds, with some exposure to Venture Capital, Special Situations, and Non-U.S. Funds. Due to contractual limitations, none of the 250 funds are eligible for redemption for up to 10 years. The Real Estate portfolio, composed of 15 funds, invests in both U.S. and non-U.S. commercial real estate. The fair values of these funds have been determined using net assets valued one quarter in arrears plus current quarter cash flows. Two out of 15 funds are eligible for redemption depending upon the availability of cash for redemptions in the fund. Distributions are received as underlying investments within the funds are liquidated, which on average can occur over the span of five to 10 years. For Real Estate investments held in separate accounts and debt program investments, see Note J - Special Purpose Entities.

Investments Measured at Fair Value — OPEB Trust*As of June 30, 2019*

(Dollars in Thousands)

Investments by Fair Value Level	Total	Quoted Prices in Active Markets for Identical Assets Level 1	Significant Other Observable Inputs Level 2	Significant Unobservable Inputs Level 3
Fixed Income Securities				
Asset-Backed Securities	\$1,334	\$—	\$1,334	\$—
Private Placement Fixed Income	2,500	—	2,500	—
Corporate and Other Credit	4,885	—	4,885	—
Pooled Investments	122,194	122,194	0	—
U.S. Treasuries	2,993	—	2,993	—
Total Fixed Income Securities	\$133,906	\$122,194	\$11,712	\$—
Total Investment by Fair Value Level	\$133,906	\$122,194	\$11,712	\$—
Investments Measured at Net Asset Value (NAV)				
Fixed Income	\$345,867			
Equity	624,039			
Real Estate Investment Trust (REIT)	120,247			
Total Investments Measured Trust at NAV	\$1,090,153			
Total Investments	\$1,224,059			

Investments Measured at Net Asset Value — OPEB Trust*As of June 30, 2019*

(Dollars in Thousands)

Investment by Fair Value Level	Fair Value	Unfunded Commitments ²	Redemption Frequency (If Currently Eligible)	Redemption Notice Period
Fixed Income Securities				
Commingled Fixed Income Funds	\$345,867	\$—	Daily, Monthly	1-30 days or N/A
Commingled Equity Fund	624,039	—	Daily, Monthly	1-30 days or N/A
Real Estate Investment Trust (REIT)	120,247	—	Daily, Monthly	1-30 days or N/A
Total Investments Measured at NAV ¹	\$1,090,153			

⁽¹⁾ **Commingled Funds:** The OPEB Master Trust is invested in seven funds that are considered commingled in nature. They are valued at the net asset value (NAV) of units held at the end of the period based upon the fair value of the underlying investments. Most of the funds are highly liquid within one month.

⁽²⁾ There are no unfunded commitments for the OPEB Trust. As of June 30, 2019 there was \$2 million uninvested cash in the OPEB Trust, which was deposited into the OPEB cash account and then subsequently invested after month end.

Investments Measured at Fair Value — OPEB Trust*As of June 30, 2018*

(Dollars in Thousands)

Investments by Fair Value Level	Total	Quoted Prices in Active Markets for Identical Assets Level 1	Significant Other Observable Inputs Level 2	Significant Unobservable Inputs Level 3
Fixed Income Securities				
Asset-Backed Securities	\$1,138	\$—	\$1,138	\$—
Private Placement Fixed Income	4,082	—	4,082	—
Corporate and Other Credit	4,597	—	4,597	—
Pooled Investments	94,866	94,866	0	—
U.S. Treasuries	991	—	991	—
Total Fixed Income Securities	\$105,674	\$94,866	\$10,808	\$—
Total Investment by Fair Value Level	\$105,674	\$94,866	\$10,808	\$—
Investments Measured at Net Asset Value (NAV)				
Fixed Income	\$267,288			
Equity	456,824			
Real Estate Investment Trust (REIT)	97,073			
Total Investments Measured Trust at NAV	\$821,185			
Total Investments	\$926,859			

Investments Measured at Net Asset Value — OPEB Trust*As of June 30, 2018*

(Dollars in Thousands)

Investment by Fair Value Level	Fair Value	Unfunded Commitments ²	Redemption Frequency (If Currently Eligible)	Redemption Notice Period
Fixed Income Securities				
Commingled Fixed Income Funds	\$267,288	\$—	Daily, Monthly	1-30 days or N/A
Commingled Equity Fund	456,824	—	Daily, Monthly	1-30 days or N/A
Real Estate Investment Trust (REIT)	97,073	—	Daily, Monthly	1-30 days or N/A
Total Investments Measured at NAV ¹	\$821,185			

⁽¹⁾ **Commingled Funds:** The OPEB Master Trust is invested in eight funds that are considered commingled in nature. They are valued at the net asset value (NAV) of units held at the end of the period based upon the fair value of the underlying investments. Most of the funds are highly liquid within one month.

⁽²⁾ There are no unfunded commitments for the OPEB Trust. As of June 30, 2018 there was \$1.5 million uninvested cash in the OPEB Trust, which was deposited into the OPEB cash account and then subsequently invested after month end.

Investments Measured at Fair Value — OPEB Agency Fund*As of June 30, 2019*

(Dollars in Thousands)

Investments by Fair Value Level	Total	Quoted Prices in Active Markets for Identical Assets Level 1	Significant Other Observable Inputs Level 2	Significant Unobservable Inputs Level 3
Fixed Income Securities				
Asset-Backed Securities	\$9,414	\$—	\$9,414	\$—
Private Placement Fixed Income	10,846	—	10,846	—
Corporate and Other Credit	36,820	—	36,820	—
U.S. Treasuries	61,607	—	61,607	—
Total Fixed Income Securities	\$118,687	\$—	\$118,687	\$—
Total Investments by Fair Value Level	\$118,687	\$—	\$118,687	\$—

Investments Measured at Fair Value — OPEB Agency Fund*As of June 30, 2018*

(Dollars in Thousands)

Investments by Fair Value Level	Total	Quoted Prices in Active Markets for Identical Assets Level 1	Significant Other Observable Inputs Level 2	Significant Unobservable Inputs Level 3
Fixed Income Securities				
Asset-Backed Securities	\$7,214	\$—	\$7,214	\$—
Private Placement Fixed Income	8,928	—	8,928	—
Corporate and Other Credit	32,727	—	32,727	—
U.S. Treasuries	58,525	—	58,525	—
Total Fixed Income Securities	\$107,394	\$—	\$107,394	\$—
Total Investments by Fair Value Level	\$107,394	\$—	\$107,394	\$—

NOTE Q — Other Post-Employment Benefits (OPEB) Trust

Establishment of Los Angeles County (County) OPEB Trust

Pursuant to the California Government Code, the County established an irrevocable, tax exempt OPEB Trust for the purpose of holding and investing assets to pre-fund the Retiree Healthcare Benefits Program and applied globally where appropriate, which LACERA administers. In May 2012, the County Board of Supervisors approved entering into a Trust and Investment Services Agreement with the LACERA Board of Investments to serve as trustee and investment manager.

The County OPEB Trust was the County's first step to reduce its OPEB unfunded liability. It provides a framework where the County contributes to the Trust and transitions, over time, from funding post-retirement benefits as a pay-as-you-go model to a prefunding model. The County OPEB Trust does not modify the participating employers' existing benefit programs.

The County OPEB Trust serves as a funding tool for the participating employers to hold and invest assets used to pay expenses associated with future OPEB benefits, such as medical, dental and vision provided by the Retiree Healthcare Program including retiree death/ burial benefit. The participating employers will be responsible for and have full discretion over the timing and use of those assets restricted for OPEB purposes as defined in the Trust Agreement. There are only two participating employers in the County OPEB Trust: Los Angeles County and LACERA.

Establishment of Los Angeles Superior Court (Court) OPEB Trust

Similar to the OPEB Trust established by the County, the Court followed the County's lead and established a separate OPEB Trust Fund, the Court OPEB Trust, to begin prefunding its own OPEB unfunded liability.

Pursuant to the California Government Code, the Court established an irrevocable OPEB Trust for the purpose of holding and investing assets to prefund the Retiree Healthcare Program, which LACERA administers. In April 2016, the Judicial Council of California approved the Court's request to establish a qualified irrevocable Trust, as well as use LACERA's Board of Investments as trustee and investment services provider for the prefunding of the Court's OPEB liabilities.

In May 2016, to conform the language of the County OPEB Trust agreement to the language of the Court's OPEB Trust agreement, the Board of Supervisors approved the First Amendment to the *Trust and Investment Services Agreement for the County of Los Angeles OPEB Program* between the County and LACERA. This amendment permits the pooling of County and Court OPEB Trust assets solely for investment purposes and updates the fiduciary duty provisions due to the addition of the Court's OPEB Trust agreement.

In June 2016, similar to the County, the Court entered into a Trust and Investment Services Agreement with the LACERA Board of Investments.

OPEB Master Trust

In July 2016, LACERA's Board of Investments adopted the OPEB Master Trust Declaration and unitization of OPEB Trust investments. As trustee of the separate OPEB Trusts established by the County and the Court, the Board of Investments has sole and exclusive authority, control over, and responsibility for directing the investment and management of the Master Trust assets.

A unitized fund structure may allow for synergy from the shared economy and leveraged investment opportunities for greater diversification of assets. Unitization also provides participants the ability to pool assets and resources while retaining total fund and functional category values and reporting for each

participant. This approach can offer administrative efficiency, potential cost savings, and permit flexibility in asset allocation.

Funding Policy

In June 2015, the Board of Supervisors approved the countywide budget with a dedicated funding promise for the OPEB liability using a multi-year approach to enhance the County's OPEB Trust funding in a consistent manner.

Under the County OPEB Trust, LACERA is defined as a "Contributing Employer." Separate accounts are maintained for the contributions and expense obligations of the County and LACERA. Since inception, LACERA participated in lock step funding with the County. LACERA's budget includes provisions for its pro rata share of OPEB Trust contributions. In December 2015, the LACERA Boards adopted the LACERA OPEB Funding Policy allowing LACERA to prefund its portion of retiree healthcare benefits in sync with the County, while also allowing LACERA to prefund its portion of the liability separately. LACERA is not legally obligated, under the Trust or otherwise, to match the County's funding practices, but such a course of action, which has been followed in the past, reduces LACERA's share of the unfunded liability.

The Court continues to pay its OPEB liability on a pay-as-you-go basis. Although the Court has not adopted a formal OPEB funding policy, when surplus funds are available at fiscal year end, the Court may earmark such excess funds as OPEB Trust contributions.

Investment Policies — OPEB Master Trust

Investment Policy: The allocation of investment assets within the OPEB Master Trust are approved by the OPEB Trustee, the LACERA Board of Investment. As outlined in the OPEB Master Trust Investment Policy Statement, assets are managed on a total return basis with the overall goal to provide employees and retirees of the OPEB Trust with post-employment health care benefits as promised, via long-term investment program.

Target Allocation: The Board's revised asset allocation policy, adopted in December 2017, divides the Trust into four broad functional categories and contain asset classes that align with the purpose of each function. The Board has approved target weights at both the functional category and asset class level to provide for diversification of assets in an effort to meet LACERA's actuarial assumed rate of return, consistent with market conditions and risk control. The functional categories have target weights of 50.0 percent in Growth, 20.0 percent in Credit, 10.0 percent in Risk Reduction and Mitigation, and 20.0 percent in Inflation Hedges, respectively.

Schedule of Target Allocation*As of June 30, 2019*

Asset Class	Target Allocation
Growth	50.0%
Global Equity	50.0%
Credit	20.0%
High Yield Bonds	6.0%
Bank Loans	10.0%
EM Local Currency Bonds	4.0%
Risk Reduction & Mitigation	10.0%
Cash Equivalents	2.0%
Investment Grade Bonds	8.0%
Inflation Hedges	20.0%
TIPS	6.0%
Real Estate (REITs)	10.0%
Commodities	4.0%

Investment Concentrations: At June 30, 2019, the OPEB Master Trust held approximately 50.5 percent in Growth, 19.9 percent in Credit, 9.9 percent in Risk Reduction and Mitigation, and 19.7 percent in Inflation Hedges. In addition, The OPEB Master Trust did not hold investments in any one issuer that would represent 5 percent or more of the OPEB Master Trust fiduciary net position. The Superior Court contributed \$2.0 million on June 26, 2019 which was deposited into the OPEB cash account and then subsequently invested after month-end.

Money-Weighted Rate of Return: For the fiscal year ended June 30, 2019, the annual money-weighted rate of return on OPEB Trust investments, net of OPEB Trust investment expense, was 6.0 percent. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested. Historical returns will be presented as they become available, and are presented in the Schedule of Investment Returns – OPEB Program in the Required Supplementary Information section of this report.

Contributions: The participating employers historically discharged their current premium subsidy obligations on a pay-as-you-go basis. LACERA bills the healthcare premiums to the participating employers and members and receives reimbursement on a monthly basis. The County, Superior Court and LACERA use the OPEB Trust as a mechanism to pre-fund these obligations, depositing monies into the irrevocable OPEB Trust, for use in accordance with the terms of the Trust Agreement. Plan members are required to pay the difference between the employer-paid subsidy and the actual premium cost.

During fiscal years ended June 30, 2019 and 2018, the County, Superior Court, and LACERA made total pre-funding contributions to the OPEB Trust of \$235.6 million and \$123.3 million respectively, in excess of the pay-as-you-go amounts, both of which are recorded as revenue within the OPEB Trust.

During fiscal years ended June 30, 2019 and 2018, the Court redeemed \$25,000 to pay for investment and administrative expenses. There were no other redemptions during the year.

Contributions — OPEB Trust*For the Fiscal Years Ended June 30, 2019 and 2018*

(Dollars in Thousands)

	2019	2018
Los Angeles County	\$230,495	\$120,796
LACERA	940	491
Superior Court	4,178	2,016
Total Contributions ¹	\$235,613	\$123,303

⁽¹⁾ Contributions are limited to OPEB Trust prefunding and exclude pay-as-you-go contributions as included in OPEB Trust employer contributions in the Statement of Changes in Fiduciary Net Position.

Administration: The OPEB Trust administration costs include payments for investment management fees, custodial fees, and overhead charged by LACERA for administering the OPEB Trust Fund. Expenses totaled \$1.0 million and \$0.7 million for fiscal years ended June 30, 2019 and 2018, respectively. The increase was due to asset re-balancing and the addition of new investment accounts. For purposes of the GASB 74 actuarial valuation, the actuary reclassified approximately \$8.7 million of costs from benefit payments to administrative expenses. These costs are paid with premiums, but represent a flat administrative charge of \$8 per contract per month and the \$8 administrative fee is included in the premium.

Expenses — OPEB Trust*For the Fiscal Years Ended June 30, 2019 and 2018*

	2019				
	Management Fees	Custodial Fees	Consultant Fees	Administrative Expenses	Total
Los Angeles County	\$422,862	\$234,407	\$52,711	\$175,395	\$885,375
LACERA	1,620	902	203	11,693	14,418
Superior Court	18,033	9,392	2,086	46,772	76,283
Total Expenses	\$442,515	\$244,701	\$55,000	\$233,860	\$976,076

	2018				
	Management Fees	Custodial Fees	Consultant Fees	Administrative Expenses	Total
Los Angeles County	\$328,028	\$75,994	\$52,338	\$130,371	\$586,731
LACERA	1,254	290	200	14,600	16,344
Superior Court	15,595	3,571	2,462	44,984	66,612
Total Expenses	\$344,877	\$79,855	\$55,000	\$189,955	\$669,687

Fund Values: OPEB Trust Fund additions include contributions from participating employers and investment income. Deductions include redemptions, investment expenses, and administrative expenses. The OPEB Trust Fund values were as follows:

Fund Values — OPEB Trust

As of June 30, 2019 and 2018

(Dollars in Thousands)

	2019		
	Book Value	Unrealized Investment Appreciation	Fair Value
Los Angeles County	\$1,049,568	\$139,838	\$1,189,406
LACERA	4,059	538	4,597
Superior Court	39,794	4,680	44,474
Total Value	\$1,093,421	\$145,056	\$1,238,477

	2018		
	Book Value	Unrealized Investment Appreciation	Fair Value
Los Angeles County	\$814,047	\$85,373	\$899,420
LACERA	3,111	327	3,438
Superior Court	35,463	2,686	38,149
Total Value	\$852,621	\$88,386	\$941,007

NOTE R — Other Post-Employment Benefits (OPEB) Program Under Cost-Sharing Plan

The following information is provided under the cost-sharing plan structure for the OPEB Program. As of July 1, 2018, the OPEB Program transitioned from a cost-sharing structure to an agent multiple-employer plan (agent plan) structure. Note N — OPEB Program of the Financial Section includes GASB Statement No. 74 disclosures under an agent plan for fiscal year ended 2019. The disclosures in this Note R are meant to satisfy GASB Statement No. 74 financial reporting requirements of the cost-sharing plan for the comparative fiscal year ended June 30, 2018.

Summary of Significant Accounting Policies — OPEB Program

The OPEB Trust accounts for assets held in qualifying OPEB trusts, as defined by GASB Statement No. 74. As such, the OPEB Trust Fiduciary Net Position is used to reduce the Total OPEB Liability, resulting in a Net OPEB Liability to the participants within the OPEB Program for fiscal year ended 2018. See further discussion of the OPEB Trust in Note Q of the Financial Section.

Actuarial Methods and Significant Assumptions — GASB Statement No. 74

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of the occurrence of events far into the future. Examples include assumptions about future employment, mortality, and cost trends. Actuarially determined amounts are subject to continual review or modification as actual results are compared with past expectations and new estimates are made about the future. Projections of benefits for financial reporting purposes are based on the OPEB Program and include the types of benefits provided at the time of each valuation.

Where applicable, the same actuarial methods and assumptions used for the LACERA retirement benefits plan (Pension Plan) are used for the LACERA-administered OPEB Program. The table below summarizes the primary GASB Statement No. 74 OPEB-related assumptions under a cost-sharing plan structure. The retirement benefits-related demographic and economic assumptions are based on those developed for the June 30, 2016 Investigation of Experience for the Pension Plan. Economic and demographic assumptions from the Retirement Benefit Investigation of Experience are integrated into the OPEB Investigation of Experience. The OPEB demographic assumptions are based on the results of the 2016 OPEB Investigation of Experience, dated July 21, 2017. OPEB-specific assumptions that have been updated since the 2016 OPEB Investigation of Experience include healthcare cost trend rates updated with information from the July 1, 2018 renewals, the long term expected rate of return, and carrier ACA Health Insurer Fee details and claim costs.

The Total OPEB Liability as of June 30, 2018, was determined by completing a roll-forward calculation based on an actuarial valuation conducted as of July 1, 2017, using the following actuarial assumptions applied to all prior periods included in the measurement in accordance with the requirements of GASB Statement No. 74. Key methods and significant assumptions used to calculate the 2018 Total OPEB Liability under a cost-sharing plan are presented on the following page.

Key Methods and Significant Assumptions

Description	Method			
Actuarial Cost Method	Individual Entry Age Normal, Level Percent of Pay.			
Discount Rate	5.11 percent as of June 30, 2018.			
Mortality	Various rates based on the RP-2014 Healthy and Disabled Annuitant mortality tables and including projection for expected future mortality improvement using the MP-2014 Ultimate Projection Scale. This assumption was adopted with the June 30, 2016 valuation report. Before 2016, assumption was RP-2000 Combined Mortality Tables for Males and Females, projected to 2025 using Projection Scale AA, with various age setbacks depending upon Plan type.			
Administrative Expenses	Pursuant to GASB Statement No. 74, the operational administration costs, currently based on \$8 Per Member, Per Plan, Per Month, are not included in the projected liabilities, service cost, or benefit payments.			
ACA Excise Tax	The OPEB liability figures include the Excise Tax. This is based on the requirements of the Affordable Care Act (ACA) and The Consolidated Appropriations Act of 2016. Additional legislation passed in January 2018 further delayed the excise tax implementation until 2022.			
Basis of Contribution Requirements	The Actuarially Determined Contribution (ADC) is a combination of the normal cost and the amortization of the Unfunded Actuarial Accrued Liability (UAAL) under the Projected Unit Credit (PUC) actuarial cost method with Excise Tax as determined in the July 1, 2017 OPEB Valuation Report. The UAAL is the AAL net of assets. The UAAL is amortized over 30 years as a level percent of payroll.			
Inflation Rate	2.75 percent per annum. This rate was adopted beginning with the July 1, 2016 OPEB valuation.			
Healthcare Cost Trend Rates (with Excise Tax)		FY 2018 to FY 2019	FY 2019 to FY 2020	Ultimate
	LACERA Medical Under 65	5.80%	6.30%	4.50%
	LACERA Medical Over 65	6.00%	6.00%	4.50%
	Part B Premiums	9.25%	1.85%	4.35%
	Dental/Vision	0.00%	3.00%	3.70%
	Weighted Average Trend	5.85%	5.42%	4.47%
Probability of Initial Enrollment Upon Retirement	Years of Service	Medical Plan and Medicare Part B		Dental/ Vision
	<10	8%		11%
	10-14	44%		49%
	15-19	61%		64%
	20-24	81%		82%
	25+	95%		95%
	Disabled	95%		94%

Key Methods and Significant Assumptions (continued)

Medical Spouse/Dependent Enrollment Probability	Non-Firefighter 1014 ¹				Firefighter 1014
	<65 Male	<65 Female	65+ Male	65+ Female	All
	77.5%	50.0%	66.0%	32.0%	93.0%
Dental/Vision Spouse/Dependent Enrollment Probability	Male			Female	
	76%			45%	

⁽¹⁾ Members covered by the Firefighters Local 1014 medical plan while actively employed by Los Angeles County may continue this coverage after retirement. Retired Local 1014 non-Firefighter members are eligible for the Local 1014 Firefighters' retiree medical plan.

The actuarial assumptions used in the July 1, 2017 OPEB Actuarial Valuation (Cost Sharing) were based on the results of the actuarial Experience Study for the period July 1, 2013 to June 30, 2016. LACERA's actuary has performed an Experience Study every three years.

Schedule of Target Allocation and Long-Term Expected Rate of Return

As of June 30, 2018

Asset Class	Target Allocation	Weighted Average Long-Term Expected Real Rate of Return (After Expected 2.75% Inflation Rate) (Geometric)	
Growth	50.0%	4.7%	
Global Equity	50.0%		4.7%
Credit	20.0%	2.4%	
High Yield Bonds	6.0%		2.6%
Bank Loans	10.0%		2.2%
EM Local Currency Bonds	4.0%		2.6%
Risk Reduction & Mitigation	10.0%	0.7%	
Cash Equivalents	2.0%		0.1%
Investment Grade Bonds	8.0%		0.8%
Inflation Hedges	20.0%	2.5%	
TIPS	6.0%		0.5%
Real Estate (REITs)	10.0%		3.9%
Commodities	4.0%		1.8%

Target Allocation: The Board's revised asset allocation policy, adopted in December 2017, divides the Trust into four broad functional categories and contain asset classes that align with the purpose of each function. The Board has approved target weights at both the functional category and asset class level to provide for diversification of assets in an effort to meet LACERA's actuarial assumed rate of return, consistent with market conditions and risk control. The functional categories have target weights of 50.0 percent in Growth, 20.0 percent in Credit, 10.0 percent in Risk Reduction and Mitigation, and 20.0 percent in Inflation Hedges, respectively.

Expected Long-Term Real Rate of Return: The long-term expected rate of return on OPEB Trust investments was determined using a building-block method in which best estimate ranges of expected future real rates of return are developed for each major asset class. These ranges 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. Best estimates of geometric real rates of return, reduced by expected inflation as of June 30, 2018 for each major asset class are included in the table above.

The GASB Statement No. 74 investment rate of return assumption for the fiscal year ended June 30, 2018 was 6.30 percent.

Money-Weighted Rate of Return: For the fiscal year ended June 30, 2018, the annual money-weighted rate of return on OPEB Trust investments, net of OPEB Trust investment expense, was 10.0 percent. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Net OPEB Liability

GASB Statement No. 74 requires public pension plans to provide the calculation of a Net OPEB Liability. The Net OPEB Liability is measured as the Total OPEB Liability less the amount of the OPEB Trust's Fiduciary Net Position.

The Net OPEB Liability is an accounting measurement for financial statement reporting purposes. The OPEB Program funded status is calculated separately by the consulting actuary and the results of which are included in the actuarial valuation report. The components of the Net OPEB Liability at June 30, 2018, were as follows:

Schedule of Net OPEB Liability

For the Fiscal Year Ended June 30, 2018

(Dollars in Thousands)

	2018
Total OPEB Liability	\$25,671,307
Less: Fiduciary Net Position	(941,007)
Net OPEB Liability	\$24,730,300
Fiduciary Net Position as a Percentage of Total OPEB Liability	3.67%

Discount Rate

GASB Statement No. 74 requires determination of whether the OPEB Trust's Fiduciary Net Position is projected to be sufficient to make projected benefit payments. The discount rate was developed using a depletion date projection, which included the following assumptions:

- The employers contribute the amount necessary to pay the current year benefits and the planned contribution amounts to the OPEB Trust from the Los Angeles County June 22, 2015 plan.
- Benefit payments are projected based on the actuarial assumptions and the current plan provisions.
- Members are assumed to terminate, retire, become disabled, and so forth according to the actuarial assumptions used for the July 1, 2017 OPEB Valuation.
- All cash flows are assumed to occur on average halfway through the year.
- The long-term expected rate of return on plan investments is 6.30 percent as of June 30, 2018.
- The 20-year tax-exempt municipal bond index rate is 3.87 percent as of June 30, 2018.

- The funding policy used to determine actuarially determined contributions did not change. The GASB Statement No. 74 Disclosure Report includes the ACA Excise Tax in the liabilities. The funding policy will include Excise Tax for the purposes of these calculations.
- The plan provisions did not change and there are no material future changes as of the measurement date.

The result of this process is a “blended” discount rate of 5.11 percent as of June 30, 2018. Actual results at each point in time will yield different values, reflecting the actual experience of the plan membership and assets.

Sensitivity Analysis — Discount Rate

In accordance with GASB Statement No. 74, sensitivity of the Net OPEB Liability to changes in the discount rate must be reported. The following presents the Net OPEB Liability, calculated using the discount rate of 5.11 percent, as well as what the Net OPEB Liability would be if it were calculated using a discount rate that is 1 percentage point lower (4.11 percent) or 1 percentage point higher (6.11 percent) than the current rate (5.11 percent):

Sensitivity Analysis — Changes in Discount Rate

For the Fiscal Year Ended June 30, 2018

(Dollars in Thousands)

	2018		
	1% Decrease [4.11%]	Current Discount Rate [5.11%]	1% Increase [6.11%]
Total OPEB Liability	\$30,569,575	\$25,671,307	\$21,807,925
Less: Fiduciary Net Position	(941,007)	(941,007)	(941,007)
Net OPEB Liability	\$29,628,568	\$24,730,300	\$20,866,918

Sensitivity Analysis — Healthcare Cost Trend Rates

In accordance with GASB Statement No. 74, sensitivity of the Net OPEB Liability to changes in the healthcare cost trend rates must be reported. The following presents the Net OPEB Liability, calculated using the healthcare cost trend rates as reported in the July 1, 2016 OPEB Actuarial Valuation Health Cost Trend Assumptions with Excise Tax table, as well as what the Net OPEB Liability would be if it were calculated using the healthcare cost trend rates that are 1 percentage point lower or 1 percentage point higher than the current rates:

Sensitivity Analysis — Changes in Healthcare Cost Trend Rates*For the Fiscal Year Ended June 30, 2018*

(Dollars in Thousands)

	2018		
		Current Healthcare Cost Trend Rates ¹	
	1% Decrease		1% Increase
Total OPEB Liability	\$21,106,685	\$25,671,307	\$31,728,783
Less: Fiduciary Net Position	(941,007)	(941,007)	(941,007)
Net OPEB Liability	\$20,165,678	\$24,730,300	\$30,787,776

⁽¹⁾As reported in the July 1, 2016 OPEB Actuarial Valuation Health Cost Trend Assumptions with Excise Tax table.

NOTE S — Subsequent Events

Subsequent events have been evaluated by management through October 11, 2019, which is the date the financial statements were issued.

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**FINANCIAL SECTION
(REQUIRED SUPPLEMENTARY INFORMATION)**

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Schedule of Net Pension Liability ¹*For the Fiscal Years Ended June 30*

(Dollars in Thousands)

	2019	2018	2017	2016	2015	2014
Total Pension Liability	\$70,309,252	\$67,057,218	\$64,031,677	\$58,528,457	\$56,570,520	\$54,977,021
Less: Fiduciary Net Position	(58,294,837)	(56,299,982)	(52,743,651)	(47,846,694)	(48,818,350)	(47,722,277)
Net Pension Liability	\$12,014,415	\$10,757,236	\$11,288,026	\$10,681,763	\$7,752,170	\$7,254,744
Fiduciary Net Position as a Percentage of Total Pension Liability	82.91%	83.96%	82.37%	81.75%	86.30%	86.80%
Covered Payroll ²	\$8,370,050	\$7,957,981	\$7,637,032	\$7,279,777	\$6,949,420	\$6,672,886
Net Pension Liability as a Percentage of Covered Payroll	143.54%	135.18%	147.81%	146.73%	111.55%	108.72%

Total Pension Liability

The Total Pension Liability was determined by an actuarial valuation as of the valuation date, calculated based on the discount rate and actuarial methods and assumptions noted below, and was then projected forward to the measurement date taking into account any significant changes between the valuation date and the fiscal year-end as prescribed by GASB Statement No. 67.

Discount Rate

	2019	2018	2017	2016	2015	2014
Discount Rate	7.38%	7.38%	7.38%	7.63%	7.63%	7.63%
Long-Term Expected Rate of Return, Net of Expenses	7.25%	7.25%	7.25%	7.50%	7.50%	7.50%
Municipal Bond Rate	N/A	N/A	N/A	N/A	N/A	N/A

The long-term expected rate of return was determined by adding expected inflation to expected long-term real returns and reflecting expected volatility and correlation. Milliman's December 2016 Investigation of Experience analysis was used to develop the 7.38 percent assumption used for the current reporting date. This is equal to the 7.25 percent long-term investment return assumption adopted by the Board of Investments (net of investment and administrative expenses), plus 0.13 percent assumed administrative expenses.

The plan's projected Fiduciary Net Position, after reflecting employee and employer made contributions, was expected to be sufficient to make all future benefit payments of current active and inactive employees. Therefore, the discount rate for calculating the Total Pension Liability is equal to the long-term expected rate of return, gross of administrative expenses.

Other Key Actuarial Assumptions

The actuarial assumptions used to calculate the Total Pension Liability as of the June 30, 2019 measurement date are the same as those used in the June 30, 2018 actuarial funding valuation which are both based on the June 30, 2016 experience study.

Valuation Date	June 30, 2018	June 30, 2017	June 30, 2016	June 30, 2015	June 30, 2014	June 30, 2013
Measurement/Reporting Date	June 30, 2019	June 30, 2018	June 30, 2017	June 30, 2016	June 30, 2015	June 30, 2014

For Other Actuarial Methods and Assumptions, see Notes to the Required Supplementary Information.

⁽¹⁾ Trend Information: Schedule will ultimately show information for 10 years. Additional years will be displayed as they become available prospectively.

⁽²⁾ In accordance with GASB Statement No. 82, Covered Payroll is the payroll on which contributions are based.

Schedule of Changes in Net Pension Liability and Related Ratios ¹*For the Fiscal Years Ended June 30*

(Dollars in Thousands)

	2019	2018	2017	2016	2015	2014
Total Pension Liability						
Service Cost	\$1,239,396	\$1,220,274	\$1,106,755	\$1,069,328	\$1,024,288	\$1,009,834
Interest on Total Pension Liability	4,916,804	4,699,493	4,393,712	4,214,834	4,073,299	3,957,030
Effect of Plan Changes	—	—	—	—	—	—
Effect of Assumption Changes or Inputs	—	—	3,079,892	—	—	—
Effect of Economic/Demographic (Gains) or Losses	502,989	309,149	(47,506)	(437,039)	(736,010)	—
CalPERS Transfer	—	—	—	—	332	—
Benefit Payments and Refund of Contributions	(3,407,155)	(3,203,375)	(3,029,633)	(2,889,186)	(2,768,410)	(2,662,401)
Net Change in Total Pension Liability	\$3,252,034	\$3,025,541	\$5,503,220	\$1,957,937	\$1,593,499	\$2,304,463
Total Pension Liability - Beginning	67,057,218	64,031,677	58,528,457	56,570,520	54,977,021	52,672,558
Total Pension Liability - Ending (a)	\$70,309,252	\$67,057,218	\$64,031,677	\$58,528,457	\$56,570,520	\$54,977,021
Fiduciary Net Position						
Contributions - Employer ²	\$1,668,151	\$1,524,823	\$1,331,357	\$1,403,709	\$1,455,718	\$1,281,795
Contributions - Metropolitan Transportation Authority	—	—	2	3	25	—
CalPERS Transfer	—	—	—	—	332	—
Contributions - Member ²	635,415	591,262	526,579	498,083	480,158	477,648
Net Investment Income	3,163,618	4,705,949	6,129,300	80,588	1,989,358	6,910,439
Net Miscellaneous Income	5,626	5,163	6,182	2,792	1,483	—
Benefit Payments and Refund of Contributions	(3,407,155)	(3,203,375)	(3,029,633)	(2,889,186)	(2,768,410)	(2,662,401)
Administrative Expenses	(70,800)	(67,491)	(66,830)	(67,645)	(62,591)	(58,723)
Net Change in Fiduciary Net Position	\$1,994,855	\$3,556,331	\$4,896,957	(\$971,656)	\$1,096,073	\$5,948,758
Fiduciary Net Position - Beginning	56,299,982	52,743,651	47,846,694	48,818,350	47,722,277	41,773,519
Fiduciary Net Position - Ending (b)	\$58,294,837	\$56,299,982	\$52,743,651	\$47,846,694	\$48,818,350	\$47,722,277
Net Pension Liability - Ending (a) - (b)	\$12,014,415	\$10,757,236	\$11,288,026	\$10,681,763	\$7,752,170	\$7,254,744
Fiduciary Net Position as a Percentage of Total Pension Liability	82.91%	83.96%	82.37%	81.75%	86.30%	86.80%
Covered Payroll ³	\$8,370,050	\$7,957,981	\$7,637,032	\$7,279,777	\$6,949,420	\$6,672,886
Net Pension Liability as a Percentage of Covered Payroll	143.54%	135.18%	147.81%	146.73%	111.55%	108.72%

(1) Trend Information: Schedule will ultimately show information for 10 years. Additional years will be displayed as they become available prospectively.

(2) In accordance with GASB Statement No. 82, employer pick-up contributions are classified as Member Contributions.

(3) In accordance with GASB Statement No. 82, Covered Payroll is the payroll on which contributions are based.

Changes in Pension Plan Assumptions

In addition to the annual valuations, LACERA requires its actuary to review the reasonableness of the economic and demographic actuarial assumptions every three years. An experience study was performed by the consulting actuary for the three-year period ended June 30, 2016. This review, commonly referred to as the investigation of experience or experience study, is accomplished by comparing actual experience during the preceding three years to what was expected to happen according to the actuarial assumptions. Based upon the experience study, the actuary determines whether changing the assumptions or methodology will better project benefit liabilities and asset growth. At the December 2016 Board of Investments meeting, the Board adopted new valuation assumptions with the approval of the 2016 Investigation of Experience Report.

2016 Assumption Changes: The Board adopted a decrease in the investment return assumption to 7.38 percent, a decrease in the CPI assumption to 2.75 percent, and a corresponding decrease in the general wage growth assumption to 3.25 percent.

An increase in life expectancies was adopted. Mortality rates are based on the RP-2014 mortality tables and include projections for expected future mortality improvement using 100 percent of the MP-2014 Ultimate Projection Scale.

Schedule of Employer Contributions History — Pension Plan*Last 10 Fiscal Years*

(Dollars in Thousands)

	2019 ²	2018 ²	2017 ^{1, 2}	2016 ²	2015 ²	2014 ²	2013 ¹	2012	2011	2010
Actuarially Determined Contributions	\$1,668,151	\$1,524,823	\$1,331,357	\$1,403,709	\$1,455,718	\$1,281,795	\$1,172,014	\$1,078,929	\$944,174	\$843,704
Contributions in Relation to Actuarially Determined Contributions	1,668,151	1,524,823	1,331,357	1,403,709	1,455,718	1,281,795	1,172,014	1,078,929	944,174	843,704
Contribution Deficiency/ (Excess)	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—
Covered Payroll ³	\$8,370,050	\$7,957,981	\$7,637,032	\$7,279,777	\$6,949,420	\$6,672,886	\$6,595,902	\$6,619,816	\$6,650,674	\$6,695,439
Contributions as a Percentage of Covered Payroll	19.93%	19.16%	17.43%	19.28%	20.95%	19.21%	17.77%	16.30%	14.20%	12.60%

⁽¹⁾ Portion of contributions fulfilled by transfers from County Contribution Credit Reserve: \$21,891 (FYE 2017, Superior Court) and, \$448,819 (FYE 2013, County).

⁽²⁾ In accordance with GASB Statement No. 82, employer pick-up contributions are classified as Member Contributions.

⁽³⁾ In accordance with GASB Statement No. 82, Covered Payroll is the payroll on which contributions are based.

See Notes to Required Supplementary Information for actuarial funding valuation assumptions.

Schedule of Investment Returns — Pension Plan ¹*For the Fiscal Years Ended June 30*

	2019	2018	2017	2016	2015	2014
Annual Money-Weighted Rate of Return (Net of Investment Expense) ²	5.5%	9.0%	12.7%	0.7%	4.1%	17.2%

⁽¹⁾Trend Information: Schedule will ultimately show information for 10 years. Additional years will be displayed as they become available prospectively.

⁽²⁾ Money-Weighted Rate of Return is calculated as the internal rate of return on Pension Plan investments, net of investment expenses.

Notes to Required Supplementary Information — Pension Plan**Actuarial Methods and Significant Assumptions**

The actuarial assumptions used to determine the Plan liabilities, and employer and employee contributions, are based on the results of the 2016 triennial investigation of experience (experience study). The June 30, 2018 actuarial valuation prepared by the consulting actuary reflects all assumptions adopted by the LACERA Board of Investments in December 2016. The LACERA Board of Investments approved a three-year phase-in of the changes to employer contribution rates.

Key Methods and Significant Assumptions

Description	Method
Valuation Timing	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.
Actuarial Cost Method	Entry Age Normal.
Investment Rate of Return ¹	Future investment earnings are assumed to accrue at an annual rate of 7.25 percent, compounded annually, net of both investment and administrative expenses. This rate was adopted beginning with the June 30, 2016 valuation.
Consumer Price Index	Increase of 2.75 percent per annum. This rate was adopted beginning with the June 30, 2016 valuation.
General Wage Increases	3.25 percent. Rates of annual salary increases assumed for the purpose of the valuation range from 3.51 percent to 11.51 percent. In addition to increases in salary due to promotions and longevity, the increases include an assumed 3.25 percent per annum rate of increase in the general wage level of membership.
Asset Valuation Method	Assets are valued using a five-year smoothed method based on the difference between expected market value and actual market value. The recognition method is non-asymptotic, and there is no minimum or maximum corridor applied.
Amortization Method	The Unfunded Actuarial Accrued Liability (UAAL) is amortized as a level percentage of pay. The UAAL as of June 30, 2009 is amortized over a 30-year closed period. Each year thereafter, that year's UAAL is amortized over a new 30-year closed period. This is referred to as a "layered" amortization. The UAAL contribution rate calculated in the June 30, 2018 funding valuation included ten layers.
Retirement Age	A schedule of the probabilities of employment termination based on age due to a particular cause is used. For additional information, see the Retirement Probability of Occurrence tables in the Actuarial Section.

Key Methods and Significant Assumptions (continued)

Description	Method
Cost-of-Living Adjustments (COLA)	Post-retirement benefit increases of either 2.75 percent or 2.0 percent per year are assumed for the valuation in accordance with the benefits provided. This rate was adopted beginning with the June 30, 2016 valuation.
Mortality	Various rates based on RP-2014 mortality tables and using MP-2014 Ultimate Projection Scale. See the June 30, 2018 actuarial valuation report for additional information.
Recognition of Inflows/ Outflows Gains or Losses Investment Economic/Demographic Assumption Changes or Inputs	 Straight-line amortization over five years. Straight-line amortization over expected working life. Straight-line amortization over expected working life.

⁽¹⁾ Assumptions applied to funding valuation calculations vary with those applied to GASB 67 calculations.

Schedule of Investment Returns — OPEB Program ¹*For the Fiscal Years Ended June 30*

	2019	2018	2017
Annual Money-Weighted Rate of Return (Net of Investment Expense) ²	6.0%	10.0%	16.0%

⁽¹⁾Trend Information: Schedule will ultimately show information for 10 years. Additional years will be displayed as they become available prospectively.

⁽²⁾ Money-Weighted Rate of Return is calculated as the internal rate of return on OPEB Trust investments, net of investment expenses.

**FINANCIAL SECTION
(OTHER SUPPLEMENTARY INFORMATION)**

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Administrative Expenses — Pension Plan*For the Fiscal Years Ended June 30, 2019 and 2018*

(Dollars in Thousands)

	2019	2018
Personnel Services		
Salaries and Wages	\$40,490	\$37,478
Employee Benefits	22,626	21,312
Total Personnel Services	\$63,116	\$58,790
Consultant & Professional Services		
County Department Services	\$273	\$188
External Audit Fees	312	212
Legal Consultants	1,689	850
Professional Services	460	444
Temporary Personnel Services	2,831	2,595
Total Consultant & Professional Services	\$5,565	\$4,289
Operating Expenses & Equipment		
Administrative Support	\$218	\$211
General Expenses	965	942
Computer Software	1,990	1,857
Disability Medical Service Fees	1,763	1,985
Educational Expenses	1,021	1,020
Equipment	1,346	1,636
Facilities Operations	3,277	3,755
Insurance	658	475
Printing	742	745
Postage	897	1,000
Telecommunications	564	602
Transportation and Travel	784	874
Total Operating Expenses & Equipment	\$14,225	\$15,102
Total Administrative Expenses	\$28,232	\$78,181

Schedule of Investment Expenses*For the Fiscal Years Ended June 30, 2019 and 2018*

(Dollars in Thousands)

	Pension Plan		OPEB Master Trust		OPEB Agency Fund	
	2019	2018	2019	2018	2019	2018
Investment Management Fees						
Cash and Short-Term	\$644	\$864	\$10	\$73	\$20	\$18
Commodity	4,640	4,240	62	2	—	—
Global Equity	47,146	52,482	177	243	—	—
Fixed Income	37,950	32,398	808	33	68	62
Hedge Fund	42,177	46,944	—	—	—	—
Private Equity	153,753	100,639	—	—	—	—
Real Estate	54,375	51,229	79	2	—	—
Total Investment Management Fees ¹	\$340,685	\$288,796	\$1,136	\$353	\$88	\$80
Other Investment Expenses						
Consultants	\$3,679	\$2,014	\$55	\$55	\$—	\$—
Custodian	2,738	3,003	245	80	32	30
Legal Counsel	285	979	—	—	—	—
Other	6,954	7,633	—	—	—	—
Total Other Investment Expenses	\$13,656	\$13,629	\$300	\$135	\$32	\$30
Total Fees & Other Investment Expenses	\$354,341	\$302,425	\$1,436	\$488	\$120	\$110

⁽¹⁾ Difference in management fee expense from the Statement of Changes in Fiduciary Net Position are due to the inclusion of incentive fees and carry allocations in the schedule above. These incentive fees and carry allocations are deducted from investment income in the Statement of Changes in Fiduciary Net Position.

Schedule of Payments to Consultants — Pension Plan*For the Fiscal Years Ended June 30, 2019 and 2018*

(Dollars in Thousands)

	2019	2018
Actuarial		
Actuarial Valuations and Consulting Services	\$333	\$451
Audit		
External Audit Services	\$312	\$212
Legal		
Investment Legal Counsel	\$285	\$979
Legislative Consulting	272	144
Other Legal Services	1,417	705
Total Legal	\$1,974	\$1,828
Management		
Management and Human Resources Consulting	\$182	\$154
Information Technology Consulting	74	40
Total Management	\$256	\$194
Total Payments to Consultants	\$2,875	\$2,685

Note: For fees paid to investment professionals, refer to Schedule of Investment Management Fees in the Investment Section.

Statement of Changes in Assets and Liabilities — OPEB Agency Fund*For the Fiscal Year Ended June 30, 2019*

(Dollars in Thousands)

	Balance July 1, 2018	Additions	Deductions	Balance June 30, 2019
Assets				
Cash and Short-Term Investments	\$80,915	\$742,497	\$776,795	\$46,617
Accounts Receivable - Sale of Investments	—	14,494	13,043	1,451
Accrued Interest and Dividends	454	585	499	540
Account Receivable - Other	52,611	711,648	708,414	55,845
Fixed Income	107,394	43,446	32,153	118,687
Total Assets	\$241,374	\$1,512,670	\$1,530,904	\$223,140
Liabilities				
Accounts Payable - Purchase of Investments	\$14	\$17,099	\$14,063	\$3,050
Retiree Payroll and Other Payables	179	48,739	48,683	235
Accrued Expenses	209	354	220	343
Accounts Payable - Other	121,450	634,073	668,743	86,780
Due to Employers	119,522	17,064	3,854	132,732
Total Liabilities	\$241,374	\$717,329	\$735,563	\$223,140

INVESTMENT SECTION

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September 16, 2019

Board of Investments
Los Angeles County Employees Retirement Association
Gateway Plaza
300 North Lake Avenue, Suite 850
Pasadena, CA 92101

Dear Board Members:

LACERA's stated mission is to produce, protect, and provide the promised benefits. LACERA strives to align the portfolio's asset allocation, investments, and other related decision with the goals of the overall organization. Meketa Investment Group, LACERA's general investment consultant, works in concert with StepStone Group, The Townsend Group, and Albourne Partners to provide guidance to LACERA's Board of Investments (Board), and assist the Board with performance evaluation, asset allocation, manager selection, and other industry best practices.

This letter reviews the investment performance of LACERA for the fiscal year ending June 30, 2019.

2019 FISCAL YEAR IN REVIEW

While the early start of 2019 may have been characterized by worries of rising interest rates globally, this quickly shifted throughout the year as increasing concerns of slowing global growth - made worse by trade tensions between the U.S. and China - prompted major central banks to consider more accommodative policies. In the U.S., the Federal Reserve held its federal funds rate steady at its June meeting, while signaling the potential for future interest rate cuts. The European Central Bank (ECB) for its part also held rates steady with a potential for future reductions, and the Bank of Japan showed no signs of pulling back from its unprecedented monetary stimulus. Of all the central banks, the U.S. has the most room to lower rates, while Japan and Europe are already in negative interest rate territory. With growth revisions for 2019 and 2020 (according to the International Monetary Fund, 3.2% and 3.5%, respectively) down by 0.1%, key risks to monitor will not only be continued trade tensions between the U.S. and China, but also the declining growth in China, political uncertainty in Europe, and risks related to Brexit dealings.

While global equities rebounded significantly from December lows to close out fiscal year 2019, the past twelve months certainly saw heightened volatility, with the VIX reaching 36 in December before re-tracing to 25 and further retreating to more muted levels by the June 30 fiscal year end. Nonetheless, for much of the fiscal year, most markets embraced a "risk on" appetite.

U.S. equities, as represented by the Russell 3000 Index, finished off the fiscal year with a 9.0% return. Non-U.S. equity markets, however, did not fare as well. Emerging markets delivered negative returns

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in the first half of the year, to end the fiscal year with a 1.2% return. Trade tensions and a strong U.S. dollar continued to weigh down on results. The MSCI EAFE Index, representing foreign developed markets, followed closely behind returning 1.1%. Overall growth has declined in Europe given the slowdown in Germany, uncertainties related to Brexit, and trade tensions.

The trend of U.S. growth stocks outperforming value stocks persisted throughout the year, with growth holding a 3.3% lead over value, as the Russell 3000 Growth returned 10.6% over the year, versus 7.3% for the Russell 3000 Value.

Within fixed income, investment grade markets closed out the year on a strong note. Throughout the first half of Fiscal Year 2019, concerns over rising interest rates and inflation created headwinds. In the U.S., the Federal Reserve increased short-term interest rates to a range of 2.25% to 2.50% by December but this hawkish stance turned dovish in the second half as central banks abruptly shifted to a more accommodative policy by early January. Investment grade credit and high yield rebounded alongside the equity markets as a result, with the high yield market posting one of the strongest returns in nearly 10 years (7.3% for the quarter ending March 31, 2019). Despite this, the deterioration of U.S. and Chinese trade talks in May prompted a temporary drop in global equity prices and U.S. Treasury yields. The 3mo-10yr segment of the yield curve inverted for the second time in 2019, causing investors to question whether this might be a sign of worse things to come. Historically, the yield curve has been relied on as a barometer of economic strength and potential recession indicator. Inversions in the yield curve have historically (but not always) preceded recessions. However, there are inconsistent leading periods between inversions and market peaks.

Over the fiscal year, the broad U.S. bond market, represented by the Bloomberg Barclays Aggregate Index, returned 7.9%, high yield bonds as represented by the Barclays High Yield Index returned 7.5%, and TIPS, which are tied to the Barclays Tips Index, returned 4.8%. Emerging market bonds (as represented by JPM GBI-EM Global Diversified Index) posted a strong 9.0% return for the year.

Within other asset classes, natural resource stocks (S&P Global Natural Resources Index) returned -4.0%, commodities (Bloomberg Commodity Index) lost -6.8%, and REITs (MSCI U.S. REIT Index) gained 11.1%. U.S. crude settled at \$58.5/ barrel, down roughly 10% from prior fiscal year end levels, but well above the December 31st value of \$47.8. OPEC-led production cuts along with sanctions on Iran and Venezuela drove the higher prices though tempered by the slowing global economy.

2020 FISCAL YEAR OUTLOOK

Looking forward, there are several issues that we will continue to monitor. First is slowing global growth. After increasing rates over the last several years from record lows, major central banks have shifted to a more accommodative stance. With little room for a reduction in rates outside the U.S., there is speculation of other policy measures being implemented such as negative rates and/or further quantitative easing. Outside of the U.S., European economic conditions appear bleak as we continue to witness political uncertainty and ongoing structural issues. Brexit negotiations remain a concern. Within emerging markets, and China specifically, growth has slowed. Second, in the U.S., equity markets remain extended despite the volatility spike in the fourth quarter of 2018, and the current economic cycle has been one of the longest on record now going into the tenth year. Also in the U.S., trade policy remains a key issue. We also see declining growth in China and the impact of trade tensions with the U.S.

Given slowing global growth, compounded by trade tensions, major central banks have pivoted to a more dovish tone. The U.S. and ECB are expected to start cutting rates and could move back to

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quantitative easing. These policies have been a major boost to the markets and could support global growth. The key questions remain whether or not global central banks are pivoting toward monetary easing too early and if the rally in risk assets is short-lived or more sustainable. *Note: following the close of fiscal year 2019, the Federal Reserve did cut rates by 25 basis points.*

The U.S. economy and equity markets have experienced a long period of growth since the Global Financial Crisis due in part to central bank support. Late cycle dynamics of low unemployment and rising inflation are in place, and valuations are stretched for equities, despite the recent pullback witnessed in December 2018. With the long economic and market expansions, and the many unresolved political and trade issues, we could see heightened volatility in the remainder of 2019. Other key issues in the U.S. will be policy uncertainty related to tariffs, immigration, and strategic alliances.

China has the second largest economy behind the U.S. After a long period of growth driven by government investment and exports, China continues to manage a repositioning of its economy to one based increasingly on domestic consumption. This rebalancing process has led to a slowing of the economy which has hurt countries that have become reliant on its trade. The recent focus on tariffs between the U.S. and China is another key issue that could have a disproportionately negative impact on China, as the U.S. is one of their largest export destinations (18% of exports). Another core issue in China remains its high debt levels, particularly in the corporate sector.

Europe continues to have the structural problem of maintaining a single currency and central bank, while fiscal policy rests with each individual country. Consequently, countries that are experiencing financial difficulties are unable to use the traditional tools of lowering interest rates and devaluing their currency to stimulate growth. This has caused tensions within the Eurozone, as highlighted by the recent elections in Italy and the prior elections in Germany, as well as the on-going issues in Greece. Given the size of Italy's bond market and economy within the euro area, an Italian sovereign debt crisis or its departure from the euro would have significant consequences. Further, Brexit uncertainty continues to affect the Eurozone. In March 2019, Theresa May's withdrawal proposal was rejected by Members of Parliament for a third time, increasing the likelihood of a no-deal Brexit when the current extension expires in October 2019. *Note: following the close of fiscal year 2019, Boris Johnson became U.K. Prime Minister in July, increasing the likelihood of a no-deal Brexit.* We will continue to monitor these issues and others.

LACERA INVESTMENT RESULTS

Los Angeles County Employees Retirement Association ("LACERA") provides defined retirement plan benefits and other post-employment benefits for employees of the County of Los Angeles (County), the Los Angeles Superior Court (Court), and various outside districts. LACERA is responsible for the administration and investment of two separate funds (Funds): the LACERA defined benefit retirement plan (Pension Plan or Plan), whose assets provide retirement benefits for employees of the County and outside districts, and the LACERA Other Post-Employment Benefit Master Trust Fund (OPEB Master Trust), whose assets provide other post-employment benefits such as retiree healthcare for employees of the County, LACERA, and the Court.

For the fiscal year, LACERA's Pension Plan portfolio returned 6.4%, underperforming the Total Fund Policy Benchmark by -1.9% as well as its assumed actuarial rate of return of 7.25%. On June 30, 2019, the Plan had approximately \$58.4 billion in assets. For the fiscal year, LACERA had strong performance relative to peers, ranking in the 24th percentile¹ of the peer universe (1st percentile is best and 100th is

¹ Based on InvestorForce peer rankings: Defined Benefit Public Funds over \$1 billion in assets.

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worst). Over the trailing three-year and five-year periods, the LACERA Pension Plan portfolio returned 9.4% and 6.5% on average annually. For the trailing three years, LACERA was in the 22nd percentile compared to peers, and over the trailing five years, LACERA was in the 15th percentile compared to peers. For the fiscal year, the OPEB Master Trust returned 5.5% at the end of June 2019, slightly outperforming its Custom OPEB Total Fund benchmark by 0.1%. The OPEB Master Trust stood at \$1.2 billion at the end of June.

During fiscal year 2019, LACERA began implementing a new strategic asset allocation for the Pension Plan, which introduced a functional framework to provide an additional lens through which to view the portfolio and also added new asset classes aimed at enhancing diversification and risk-adjusted returns.

SUMMARY

We continue to believe that the Pension Plan and OPEB Master Trust portfolios are well diversified. We look forward to continuing our work with the Board and Staff to help LACERA meet its mission of producing, protecting, and providing the promised benefits.

If you have any questions, please contact us at (760) 795-3450.

SPM/LAF/TF/srt

Sincerely,

A handwritten signature in blue ink that reads "Leandro Festino". The signature is fluid and cursive, with a long horizontal line extending from the end.

Leandro Festino, CFA, CAIA
Managing Principal

A handwritten signature in blue ink that reads "Stephen P. McCourt". The signature is cursive and somewhat stylized.

Stephen P. McCourt, CFA
Managing Principal



Chief Investment Officer's Report — As of June 30, 2019

Dear LACERA members:

I am pleased to present the Investment Section of LACERA's Comprehensive Annual Financial Report for Fiscal Year 2019. This section presents the investment performance for the two funds (Fund or Funds) that LACERA oversees for the County of Los Angeles, the defined benefit retirement plan (Pension Plan or the Plan) and the LACERA Other Post-Employment Benefit Master Trust (OPEB Trust or the Trust),¹ and describes the Investment Division's role in fulfilling LACERA's mission to produce, protect, and provide the promised retirement and healthcare benefits to its members.

The Pension Plan returned 6.4 percent during the fiscal year, while the OPEB Trust gained 5.5 percent during the same period.² LACERA aims to meet or exceed each Fund's benchmark over a full market cycle and actuarial expected return assumption over the long term. As illustrated below, the Pension Plan's return was below its policy benchmark for the past fiscal year but is modestly ahead of its benchmark and its actuarial expected return over most longer time periods. The OPEB Trust matched its policy benchmark's return of 5.5 percent during the past fiscal year and exceeded its actuarial expected return for the three-year and five-year periods.³

Annualized Total Returns Fiscal Year Ended June 30, 2019 (Net of Fees)

	1 Year	3 Years	5 Years	7 Years	10 Years
Pension Plan	6.4%	9.4%	6.5%	8.7%	9.1%
<i>Policy Benchmark</i>	8.3	9.1	6.8	8.6	8.9
<i>Actuarial Expected Return</i>	7.25	7.25	7.25	7.25	7.25
OPEB Master Trust	5.5	12.3	6.9	-	-
<i>Policy Benchmark</i>	5.5	9.8	5.3	-	-
<i>Actuarial Expected Return</i>	6.0	6.0	6.0	-	-

Asset Allocation

LACERA's Board of Investments (the Board) adopts separate Investment Policy Statements (IPS's) to guide the Pension Plan's and the OPEB Trust's investments. Each IPS defines a strategic asset allocation that aims to maximize long-term growth while ensuring that LACERA meets its current and future obligations. To that end, LACERA expects both Funds' strategic asset allocations to be the core drivers of risk-adjusted returns over the long term.

¹ LACERA is responsible for the administration and investment of two separate funds: the County of Los Angeles (the County) defined benefit retirement plan, whose assets provide retirement benefits for employees of the County and outside districts, and the LACERA Other Post-Employment Benefit Master Trust, whose assets are held in trust to pre-fund post-employment healthcare benefits for retirees of the County, LACERA, and the Superior Court of California, County of Los Angeles.

² All returns are net of fees unless otherwise noted.

³ Performance inception for the OPEB Trust is February 1, 2013.

INVESTMENT SECTION

Each Fund's strategic asset allocation apportions investment dollars among functional categories and sub-asset classes based on long-term return objectives and short-term needs. A table detailing the functional categories, sub-asset classes, and the role each is expected to fulfill in LACERA's investment portfolios is presented below⁴:

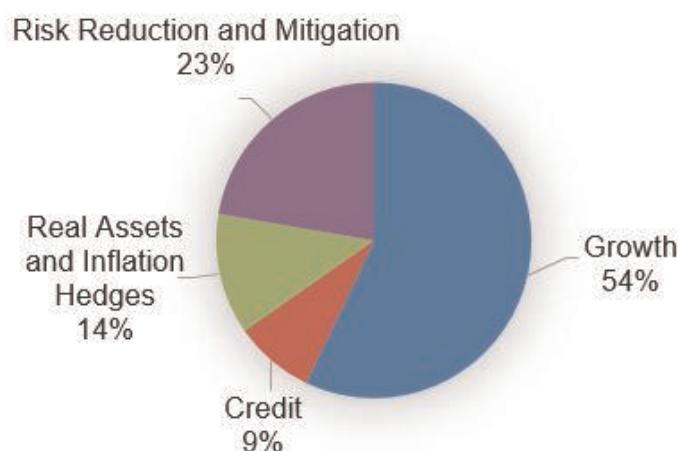
Functional Category	Sub-Asset Classes	Role In Portfolio
Growth	Global Equity Private Equity Opportunistic Real Estate	Primary driver of long-term total returns
Credit	High Yield Bonds Bank Loans Emerging Market Debt Illiquid Credit-Oriented Fixed Income	Produce current income and moderate long-term total returns with lower risk than growth assets
Real Assets and Inflation Hedges	Core and Value-Added Real Estate Natural Resources/Commodities Infrastructure Treasury Inflation Protected Securities	Provide income and hedge against inflation
Risk Reduction and Mitigation	Investment Grade Bonds Diversified Hedge Funds Cash	Provide current income and a modest level of return while reducing total portfolio risk

LACERA's Board of Investments reviews each Fund's strategic asset allocation every three to five years or more often if needed to ensure that both portfolios are aligned with anticipated risks and opportunities. Asset allocation studies consider a number of factors including, but not limited to: the Funds' current and projected funded status, liabilities, and liquidity requirements; the long-term risk, return, and correlation expectations for individual asset categories; and an assessment of future economic conditions. LACERA's Board approved updated strategic asset allocations for the Pension Plan in 2018 and the OPEB Trust in 2017. The updated allocation targets are intended to give each portfolio a more neutral risk profile primarily by reducing riskier assets, such as public equities, and, establishing new and/or larger allocations to diversifying categories such as credit, infrastructure, natural resources, and other inflation hedges. These changes are expected to enhance the resiliency of both portfolios across changing market environments.

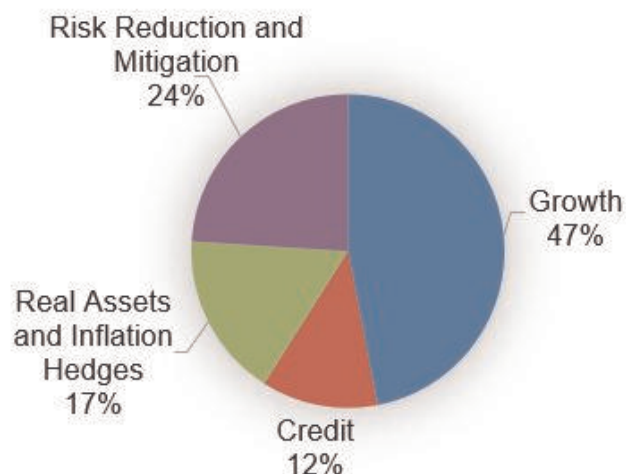
The Pension Plan is currently transitioning to its newly adopted targets. The Plan's June 30, 2019 actual and updated target asset allocation, expected to be achieved by December 31, 2019, are shown below.

⁴The functional frameworks of the Plan and the OPEB Trust differ as the OPEB Trust does not invest in private assets.

**Pension Plan Actual Asset Allocation
as of June 30, 2019**

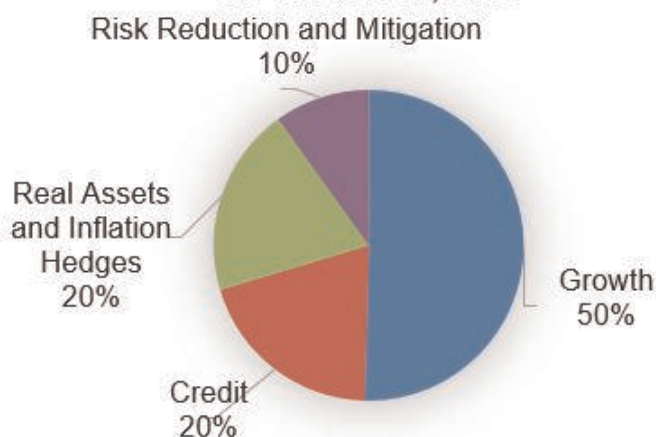


Pension Plan Target Asset Allocation

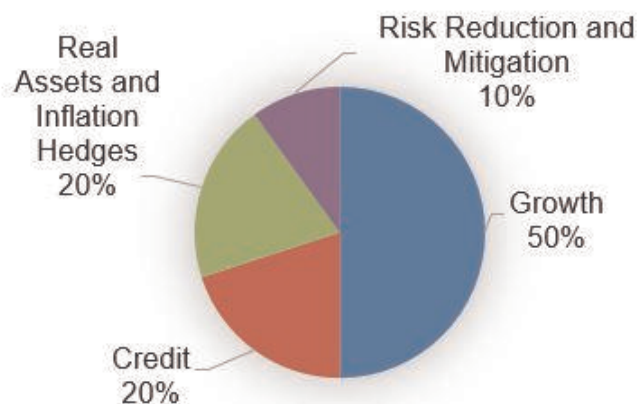


Based on its own liquidity needs and funding status, the OPEB Trust's strategic asset allocation differs from that of the Plan. The Trust's transition to its target asset allocation had been fully implemented by the end of fiscal year 2018. Its fiscal year-end and target allocations are illustrated below.

**OPEB Trust Actual Asset Allocation
as of June 30, 2019**



OPEB Trust Target Asset Allocation



Both Funds were in compliance with their interim Policy target allocation ranges as of fiscal year end.

Core Performance Drivers

All asset categories, with the exception of commodities, contributed to the Pension Plan's positive absolute performance. The private equity and real estate categories realized strong gains and exceeded long-term performance expectations. The domestic equity and fixed income categories also added to the Fund's total return; while gains in the international equity and hedge fund categories were more muted.

INVESTMENT SECTION

Following both investment portfolios' strategic asset allocation reviews, the Funds adopted benchmarks to reflect their revised allocation targets. While the transition of the Trust's portfolio to its new targets was accomplished in one quarter, implementation of the Pension Plan's new allocation will take longer given the complexity of the various mandates. The lag between benchmark adoption and portfolio modification has resulted in a gap in performance between the portfolio and its benchmark that should subside over time. Notwithstanding the potential for short-term variances, both Funds' revised strategic asset allocations are designed to temper volatility in a wide variety of market regimes.

The accompanying letter from Meketa Investment Group, LACERA's general investment consultant, discusses the market environment that shaped and influenced the Funds' performance during the past fiscal year. Continued economic and market uncertainty underscore the importance of LACERA's balanced approach with its focus on long-term, sustainable performance.

Looking Forward

Both Funds' positive absolute returns lifted asset levels to new highs at the end of the fiscal year. LACERA recognizes the importance of preserving the Funds' assets to provide its members with secure retirement and healthcare benefits, and the further diversification of both portfolios should increase resiliency in the face of persistent geopolitical and macroeconomic challenges. To this end, we remain steadfast in diligently monitoring investment risks, remaining proactive in the face of evolving macroeconomic challenges and opportunities, and always striving to best serve the interests of LACERA members.

Respectfully submitted,

A handwritten signature in cursive script that reads "Jonathan Grabel".

Jonathan Grabel
Chief Investment Officer

INVESTMENT SECTION

Investment Summary — Pension Plan ¹

For the Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

Type of Investment ²	Fair Value	Percent of Total Fair Value
Growth	\$31,256,657	
Global Equity	24,709,974	42.2%
Private Equity	5,625,088	9.6%
Opportunistic Real Estate	921,595	1.6%
Credit³	\$5,089,506	
High Yield	2,334,528	4.0%
Bank Loans	874,879	1.5%
Emerging Market Debt	852,921	1.5%
Illiquid Credit	1,026,127	1.8%
Real Assets and Inflation Hedges	\$8,422,733	
Core and Value Added Real Estate	5,355,484	9.2%
Natural Resources & Commodities	1,740,726	3.0%
Infrastructure	814,441	1.4%
Treasury Inflation-Protected Securities	512,082	0.9%
Risk Reduction and Mitigation	\$13,672,575	
Investment Grade Bonds	11,597,672	19.8%
Diversified Hedge Fund Portfolio	1,545,378	2.6%
Cash	529,524	0.9%
Total Investments - Pension Plan	\$58,441,472	100.0%

Investment Summary — OPEB Master Trust ¹

For the Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

Type of Investment	Fair Value	Percent of Total Fair Value
Growth	\$623,947	
Global Equity	623,947	50.3%
Credit	\$245,888	
High Yield	74,021	6.0%
Bank Loans	122,194	9.9%
EM Local Currency Bonds	49,673	4.0%
Real Assets and Inflation Hedges	\$243,601	
Real Estate (REITs)	120,214	9.7%
Commodities	49,262	4.0%
Treasury Inflation-Protected Securities	74,125	6.0%
Risk Reduction & Mitigation	\$122,792	
Investment Grade Bonds	98,731	8.0%
Cash Equivalents	24,061	1.9%
Uninvested Cash	\$2,258	0.2%
Total Investments - OPEB Master Trust	\$1,238,486	100.0%

INVESTMENT SECTION

Investment Summary — OPEB Agency Fund ¹

For the Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

Type of Investment	Fair Value	Percent of Total Fair Value
Cash and Cash Equivalents	\$13,536	10.2%
Fixed Income	119,209	89.8%
Total Investments - OPEB Agency Fund	\$132,745	100.0%

⁽¹⁾ Differences between fair values in the Statement of Fiduciary Net Position and this schedule are due to the utilization of investment manager asset classifications and their fair values.

⁽²⁾ Type of Investment by revised asset allocation that divides the Trust into four broad functional categories.

INVESTMENT SECTION

Investment Results Based on Fair Value ^{1,2} — Pension Plan * **

As of June 30, 2019

	Quarter End June 30, 2019	Annualized (Net-of-Fees)			
		Current Year	Three- year	Five-year	Ten-year
Growth	3.6%				
<i>Growth Custom BM</i>	4.6%				
Global Equity	3.4%				
<i>Global Equity Custom BM</i>	2.7%				
Private Equity - Growth	4.7%				
<i>Private Equity - Growth Custom BM</i>	12.8%				
Opportunistic Real Estate	1.7%	8.1%	11.2%	13.6%	1.7%
<i>Opportunistic Real Estate Custom BM</i>	1.9%				
Credit	2.3%				
<i>Credit Custom BM</i>	3.0%				
High Yield	2.1%				
<i>High Yield Custom BM</i>	3.1%				
Bank Loans	1.9%				
<i>Credit Suisse Leveraged Loans</i>	1.6%				
Emerging Market Debt	4.2%	11.4%			
<i>EMD Custom BM</i>	4.3%	11.1%			
Illiquid Credit	1.5%				
<i>Illiquid Credit Custom BM</i>	4.4%				
Real Assets & Inflation Hedges	1.4%				
<i>Real Assets & Inflation Hedges Custom BM</i>	1.8%				
Core & Value-Added Real Estate	1.8%	9.0%	7.7%	9.1%	6.6%
<i>Core & Value-Added Real Estate Custom BM</i>	1.3%				
Natural Resources & Commodities	(0.7)%	(6.2)%	(0.3)%	(8.0)%	(2.0)%
<i>Natural Resources & Commodities Custom BM</i>	0.4%	(5.2)%	(1.7)%	(8.9)%	(3.6)%
Risk Reduction & Mitigation	2.8%				
<i>Risk Reduction & Mitigation Custom BM</i>	2.7%				
Investment Grade Bonds	3.1%	7.8%	3.2%	3.3%	5.1%
<i>Bloomberg Barclays U.S. Aggregate BM</i>	3.1%	7.9%	2.3%	2.9%	3.9%
Diversified Hedge Funds	1.1%				
<i>Diversified Hedge Funds Custom BM</i>	1.2%				
Cash	0.7%	2.7%	1.7%	1.2%	1.3%
<i>Cash Custom BM</i>	0.6%	2.4%	1.4%	0.9%	0.5%
Total Fund (Net of Fees)	3.0%	6.4%	9.4%	6.5%	9.1%
Total Fund Custom Policy Benchmark	3.7%	8.3%	9.1%	6.8%	8.9%

* Functional asset categories that were in effect at fiscal year-end which are consistent with the financial statement asset classification as presented in the Financial Section.

** A complete list of custom benchmark definitions is available upon request.

⁽¹⁾ Functional asset category returns are calculated based on time-weighted rates of return, net of manager fees; Total Fund performance is calculated based on the weighted average returns of the functional asset categories, net of manager fees. The second calendar quarter of 2019 is the inaugural reporting period for which the functional asset allocation and interim policy target ranges adopted by the Board of Investments (BOI) in June 2018 are presented.

⁽²⁾ Some asset categories and their benchmarks are reported with a one or three month lag.

INVESTMENT SECTION

Investment Results Based on Fair Value ¹ — OPEB Mater Trust ^{**}

As of June 30, 2019

	Annualized (Net-of-Fees)			
	Quarter End June 30, 2019	Current Year	Three-year	Five-year
Growth	3.5%	4.9%	11.7%	
Global Equity	3.5%	4.9%	11.7%	6.4%
MSCI ACWI IMI Net	3.4%	4.6%	11.4%	6.0%
Credit	2.6%	5.7%		
OPEB Master Trust Credit Custom BM	2.7%	6.1%		
Bank Loans	1.5%	3.6%		
S&P/LSTA Leveraged Loan Index	1.7%	4.0%		
High Yield	2.6%	7.6%		
BC High Yield Index	2.5%	7.5%		
EM Local Currency Bonds	5.6%	8.4%		
JPM GBI-EM Global Diversified Index	5.6%	9.0%		
Real Assets & Inflation Hedges	1.0%	5.0%		
OPEB Master Trust Real Asset & Inflation Hedges Custom BM	1.0%	5.1%		
Real Estate (REITs)	0.8%	9.7%		
DJ US Select Real Estate Sec Index	0.8%	9.8%		
Commodities	(1.2)%	(6.7)%		
Bloomberg Commodity Index (Total Return)	(1.2)%	(6.8)%		
Treasury Inflation-Protected Securities (TIPS)	2.9%	4.9%		
Bloomberg Barclays U.S. TIPS Index	2.9%	4.8%		
Risk Reduction & Mitigation	2.6%	6.9%	3.2%	
OPEB Master Trust Risk Reduction & Mitigation Custom BM	2.6%	6.8%	2.8%	
Investment Grade Bonds	3.1%	7.9%		
Bloomberg Barclays U.S. Aggregate	3.1%	7.9%		
Enhanced Cash	0.8%	3.2%	1.9%	1.3%
FTSE 6 M T-Bill Index	0.6%	2.4%	1.4%	0.9%
Total OPEB Master Trust ²	2.7%	5.5%	12.3%	6.9%
Total OPEB Master Trust Policy	2.8%	5.5%	9.8%	5.3%

* Functional asset categories that were in effect at fiscal year-end which are consistent with the financial statement asset classification as presented in the Financial Section.

** A complete list of custom benchmark definitions is available upon request.

⁽¹⁾ Functional asset category returns are calculated based on time-weighted rates of return, net of manager fees; Total OPEB Master Trust performance is calculated based on the weighted average returns of the asset classes, net of manager fees.

⁽²⁾ Total OPEB Master Trust gross of fee returns for the one-year, three-year, and five-year periods are 5.6 percent, 12.3 percent, and 6.9 percent, respectively.

Total Investment Rates of Return — Pension Plan*For the Last 10 Fiscal Years Ended June 30*

(Dollars in Thousands)

Fiscal Year End	Total Investment Portfolio Fair Value	Total Fund Time-Weighted Return (net of fees) (1)	Total Fund Money- Weighted Return (net of fees) (2)	Return on Smoothed Valuation Assets (net of fees) (3)	Actuarial Assumed Rate of Return (4)	Actuarial Funded Ratio (5)
2010	\$33,760,695	11.6%	—	0.5%	7.75%	83.3%
2011	39,770,032	20.2%	—	3.3%	7.70%	80.6%
2012	38,627,163	—	—	1.8%	7.60%	76.8%
2013	42,285,906	11.9%	—	5.4%	7.50%	75.0%
2014	49,033,365	16.5%	17.5%	11.8%	7.50%	79.5%
2015	47,990,447	4.1%	4.1%	10.5%	7.50%	83.3%
2016	47,898,667	0.8%	0.7%	6.5%	7.25%	79.4%
2017	52,225,457	12.7%	12.7%	8.2%	7.25%	79.9%
2018	55,443,060	9.0%	9.0%	8.1%	7.25%	80.6%
2019 ⁶	\$57,976,436	6.4%	5.5%			

⁽¹⁾ **Total Fund — Time-Weighted Rate of Return** is the aggregate increase or decrease in the value of the portfolio resulting from the net appreciation or depreciation of the principal of the fund, plus or minus the net income or loss experienced by the fund during the period. The returns are presented net of investment management fees.

⁽²⁾ **Total Fund — Money-Weighted Rate of Return** is a measurement of investment performance, net of investment expenses, adjusted for the changing amounts actually invested. The returns are presented net of investment management fees.

⁽³⁾ **Return on Smoothed Valuation Assets** consists of, annual investment income in excess or shortfall of the expected rate of return on a valuation (actuarial) basis smoothed over a specified period with a portion of the year's asset gains or losses being recognized each year beginning with the current year.

⁽⁴⁾ **Actuarial Assumed Rate of Return** is the future investment earnings of the assets which are assumed to accrue at an annual rate, compounded annually, net of both investment and administrative expenses. The Actuarial Assumed Rate of Return is 7.25 percent as adopted by the Board of Investments based on the results of the Actuarial Investigation of Experience completed in December 2016. For Fiscal Year 2018-2019, interest crediting and operating tables applied the 7.25 percent Actuarial Assumed Rate of Return.

⁽⁵⁾ **Actuarial Funded Ratio** is a measurement of the funded status of the fund calculated by dividing the valuation assets by the actuarial accrued liability.

⁽⁶⁾ Actuarial Valuation report for June 30, 2019 not available at CAFR publication.

INVESTMENT SECTION

Largest Equity Holdings — Pension Plan ¹

As of June 30, 2019

(Dollars in Thousands)

Shares	Description	Fair Value
2,947,217	Microsoft Corporation	\$394,809
1,802,323	Apple Inc.	356,716
161,012	Amazon.com, Inc.	304,897
932,046	Facebook, Inc. Class A	179,885
758,832	Berkshire Hathaway Inc. Class B	161,760
1,412,645	Nestle S.A.	146,422
1,039,028	Johnson & Johnson	144,716
1,270,699	JPMorgan Chase & Co.	142,064
118,252	Alphabet Inc. Class C	127,820
116,474	Alphabet Inc. Class A	126,118

Note: A complete list of portfolio holdings is available upon request.

⁽¹⁾ Reflects the global equity exposure of assets held in custody as well as certain commingled funds.

INVESTMENT SECTION

Largest Fixed Income Holdings — Pension Plan ¹

As of June 30, 2019

(Dollars in Thousands)

Par	Description	Fair Value
144,600,000	Federal National Mortgage Association TBA 30 Yr 3.500% 08/13/2019	\$147,806
120,667,000	U.S. Treasury Note 2.875% 08/15/2028	129,671
100,488,000	Federal Home Loan Discount Note 0.000% 08/14/2019	100,217
70,000,000	Federal National Mortgage Association TBA 30 Yr 4.000% 08/13/2049	72,326
65,000,000	U.S. Treasury Note 2.375% 08/15/2024	66,899
64,600,000	Federal National Mortgage Association TBA 30 Yr 3.500% 09/12/2049	66,010
62,957,276	Ginnie Mae II TBA 30 Yr 4.000%	65,264
64,800,000	U.S. Treasury Note 1.625% 05/15/2026	63,767
56,800,000	U.S. Treasury Note 2.500% 08/15/2023	58,516
56,246,000	U.S. Treasury Note 2.375% 05/15/2029	58,098

Note: A complete list of portfolio holdings is available upon request.

⁽¹⁾ Reflects fixed income exposure of assets held in custody as well as certain commingled funds.

INVESTMENT SECTION

Schedule of Investment Management Fees

For the Fiscal Years Ended June 30, 2019 and 2018

(Dollars in Thousands)

	Pension Plan		OPEB Trust		OPEB Agency Fund	
	2019	2018	2019	2018	2019	2018
Cash and Short-Term Managers	\$644	\$864	\$10	\$73	\$20	\$18
Commodity Managers	4,640	4,240	62	2	—	—
Global Equity Managers	47,146	52,482	177	243	—	—
Fixed Income Managers	37,950	32,399	808	34	68	62
Hedge Fund Managers	42,177	46,944	—	—	—	—
Private Equity Managers	153,753	100,639	—	—	—	—
Real Estate Managers	54,375	51,229	79	2	—	—
Total Investment Management Fees ¹	\$340,685	\$288,797	\$1,136	\$354	\$88	\$80

⁽¹⁾ Difference in expenses from investing activities in the Statement of Changes in Fiduciary Net Position is due to the inclusion of incentive fees, carry allocations, and operating expenses in the above schedule. These incentive fees, carry allocations, and operating expenses are deducted from investment income in the Statement of Changes in Fiduciary Net Position.

List of Investment Managers

GROWTH

Global Equity

Acadian Asset Management, LLC
AQR Capital Management, LLC
BlackRock Institutional Trust Company, N.A.
Capital International, Inc.
Cevian Capital
Eagle Asset Management, Inc.
Frontier Capital Management Company, LLC
Genesis Investment Management, LLP
Global Alpha Capital Management, LTD
JANA Partners, LLC
Lazard Asset Management, LLC
Matarin Capital Management, LLC
Quantitative Management Associates, LLC
Symphony Financial Partners
Systematic Financial Management, LP

Opportunistic Real Estate

Aermont Capital Management, S.a.r.l
Angelo, Gordon & Company, LP
Capri Capital Advisors, LLC
CityView Management Services, LLC
Europa Capital, LLP
Invesco Advisers, Inc.
Lowe Enterprises Residential Investors, LLC
Realty Associates Advisors, LLC (TA)
RREEF America, LLC
Starwood Capital Group
Stockbridge Capital Group
The Carlyle Group
TPG Capital

Private Equity¹

J.P. Morgan Investment Management, Inc.
Morgan Stanley Alternative Investments, LLC
Pathway Capital Management, LP

CREDIT

High Yield

Bain Capital Credit, LP

Beach Point Capital Management, LP
Brigade Capital Management, LLC
DoubleLine Capital, LP
Oaktree Capital Management, LP
TCW Asset Management Company

Bank Loans

Crescent Capital Group, LP
Tennenbaum Capital Partners, LLC

Emerging Market Debt

Aberdeen Asset Management, Inc.
Ashmore Investment Management LTD

Illiquid Credit

Barings, LLC
Beach Point Capital Management, LP
Grosvenor Capital Management, LP
Quadrant Real Estate Advisors, LLC

REAL ASSETS and INFLATION HEDGES

Core and Value Added Real Estate

AEW Capital Management, LP
Avison Young
Barings, LLC
CapMan, PLC
Capri Capital Advisors, LLC
CB Richard Ellis Global Investors, LLC
CityView Management Services, LLC
Clarion Partners, LLC
Heitman Capital Management, LLC
Hunt Investment Management, LLC
Invesco Advisers, Inc.
Prologis Management II, S.a.r.l
Realty Associates Advisors, LLC (TA)
RREEF America, LLC
Stockbridge Capital Group
Vanborton Group, LLC

Natural Resources & Commodities

Credit Suisse Asset Management, LLC
Gresham Investment Management, LLC
Neuberger Berman Fixed Income, LLC
Pacific Investment Management Company, LLC (PIMCO)
RREEF America, LLC

¹ A complete list of Private Equity Investment Managers by functional category is available upon request.

INVESTMENT SECTION

Infrastructure

RREEF America, LLC

Treasury Inflation-Protected Securities

BlackRock Institutional Trust Company, N.A.

RISK REDUCTION and MITIGATION

Investment Grade Bonds

BlackRock Institutional Trust Company, N.A.

Dodge & Cox, Inc.

Pacific Investment Management Company, LLC
(PIMCO)

Pugh Capital Management, Inc.

Wells Capital Management, Inc.

Western Asset Management Company

Diversified Hedge Funds

AQR Capital Management

Capula Investment Management

Davidson Kempner Institutional Partners, LP

Goldman Sachs Hedge Fund Strategies, LLC

Grosvenor Capital Management, LP

HBK Capital Management

Pacific Investment Management Company, LLC
(PIMCO)

Cash

J.P. Morgan Investment Management, Inc.

Mortgage Loan Servicer

Ocwen Loan Servicing, LLC

Securities Lending Program

Goldman Sachs Agency Lending (GSAL)

State Street Bank & Trust Company

State Street Global Advisors

Health Reserve Program

Standish Mellon Asset Management Company,
LLC

Other Post-Employment Benefits Trust

BlackRock Institutional Trust Company, N.A.

J.P. Morgan Investment Management, Inc.

Overlay Program

Parametric Portfolio Associates, LLC

ACTUARIAL SECTION

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Actuarial Information Overview — Pension Plan

Introduction

The actuarial process at the Los Angeles County Employees Retirement Association (LACERA) is governed by provisions in the County Employees Retirement Law of 1937 (CERL) and the California Public Employees' Pension Reform Act of 2013 (PEPRA). The regulatory provision requires LACERA to obtain an actuarial valuation of the Pension Plan at least once every three years. It further requires the LACERA Board of Investments to transmit its recommendations related to contribution rates to the County Board of Supervisors, the primary plan sponsor. The County Board of Supervisors adopts and may adjust contribution rates in accordance with LACERA's recommendations.

LACERA engages an independent actuarial consulting firm to perform the Pension Plan valuation annually exceeding the regulatory requirements. In addition, every three years, the consulting actuary performs an investigation of experience study (experience study). On a triennial basis, a separate actuarial firm reviews both the annual valuation and experience study.

Valuation Policy

In December 2009, the LACERA Board of Investments adopted a new Retirement Benefit Funding Policy (Funding Policy). The Funding Policy was amended in February 2013 to conform to the new standards mandated in PEPRA. In addition, the LACERA Board of Investments approved inclusion of the Supplemental Targeted Adjustment for Retirees (STAR) Reserve balance as part of the valuation assets and on an ongoing basis for future valuations. The liability for STAR benefits that may be granted in the future is not included in the valuation.

The LACERA Board of Investments maintains the Retirement Benefit Funding Policy, which requires annual adjustment of the employer contribution rates based on the actuary's annual valuation. Milliman, the Pension Plan consulting actuary, reviewed the adequacy of the Plan Sponsor funding policies in accordance with Actuarial Standards of Practice (ASOP). Milliman performed the most recent actuarial valuation as of June 30, 2018, and recommended changes to the employer and employee (member) contribution rates. At its December 2018 meeting, the LACERA Board of Investments adopted Milliman's June 30, 2018 valuation report.

In addition to the annual valuations, LACERA requires its actuary to review the reasonableness of the economic and demographic actuarial assumptions every three years. This review, commonly referred to as the experience study, is accomplished by comparing actual experience during the preceding three years to what was expected to happen according to the actuarial assumptions. Based on this review, the actuary recommends changes in the assumptions or methodology that will better project benefit liabilities and asset growth. The LACERA Board of Investments adopts, possibly with modification, the recommended actuarial methods and assumptions to be used in future valuations. At its December 2016 meeting, the LACERA Board of Investments adopted Milliman's recommendations based on the 2016 Investigation of Experience for Retirement Benefit Assumptions report with a modification to the mortality improvement scale recommendation.

At the December 2016 meeting, the LACERA Board of Investments adopted a three-year phase-in of the impact of the change in employer contribution rate resulting from the new assumptions adopted effective June 30, 2016. For the fiscal year beginning July 1, 2019, the impact of the June 30, 2016 assumption changes are fully phased in.

Member Contributions

As part of the experience study, the Pension Plan actuary recommends adjustments to member contribution rates, if necessary, due to changes in the underlying actuarial assumptions and methodologies used in calculating member rates for age-based contributory Plans (General Plans A, B, C, and D, and Safety Plans A and B). Therefore, it is expected that the age-based member rates will change no more frequently than every three years. As such, based on the June 30, 2018 valuation, the actuary did not recommend any changes to member contribution rates for these plans.

For the Plans that use single-rate member contribution rates (General Plan G and Safety Plan C), the Pension Plan actuary is required to recommend rates that are one-half the normal cost rate. As such, it is expected that member contribution rates for these plans may change annually. Based on the June 30, 2018 valuation, the actuary recommended new member contribution rates effective July 1, 2019 for Safety Plan C (a decrease from 13.87 percent to 13.69 percent). No changes in employee rates were recommended for General Plan G. Note that although General Plan G employee rates are subject to change every year, the Plan G Normal Cost rate was identical to the prior year, and therefore the associated employee rate remains the same.

Employer Contributions

The consulting actuary reviews employer contribution rates each year, and recommends changes if necessary. The members and employers are responsible for contributing the portion of the present value of pension plan benefits and expenses which is allocated to a valuation year by the actuarial cost method. These contributions are known as normal cost contributions. The portion not funded by expected member contributions is the responsibility of the employers and is referred to as the employer normal cost. The employers are also responsible for contributions to eliminate funding shortfalls related to liabilities accrued in the past, including changes in the economic and demographic assumptions impacting past service. This portion of the employer's contribution rate is known as the Unfunded Actuarial Accrued Liability (UAAL) contribution rate.

For the June 30, 2018 valuation, the actuary recommended new employer normal cost contribution rates for all Plans and a new UAAL contribution rate, effective July 1, 2019. Based on the 2018 valuation, the employer normal cost rate decreased from 9.94 percent to 9.92 percent, and the employers' required contribution rate to finance the UAAL over a layered 30-year period decreased from 11.06 percent to 10.99 percent. The decrease in the calculated employer contribution rate, from 21.00 percent to 20.91 percent of payroll before reflecting the phase-in of contribution rate changes from the 2016 experience study, was primarily due to the recognition of investment gains and COLA increases, and salary increases greater than assumed. Reflecting the employer contribution rate phase-in, the calculated rate increased from 20.04 percent to 20.91 percent of payroll. The cost impact of the 2016 assumption changes was fully phased into the employer contribution rate as of the June 30, 2018 valuation.

Actuarial Cost Method

The entry age normal actuarial cost method is used for both funding requirements and financial reporting purposes. This method was approved by LACERA in 1999, as recommended by the consulting actuary. The entry age normal method allocates costs to each future year as a level percentage of payroll, which is ideal for employers to budget for future costs.

Reviews

The LACERA Board of Investments Actuarial Audit Policy Directive requires actuarial reviews of retirement benefit valuations and experience studies at regular intervals in the same cycle as LACERA's

triennial experience study and valuation. Segal Consulting (Segal), as LACERA's reviewing actuary, performed the most recent review of Milliman's experience study and valuation report as of June 30, 2016. The Board of Investments engaged Cavanaugh McDonald to serve as reviewing actuary and perform the next review of the valuation and experience study for the June 30, 2019 valuation and experience study cycle.

In regard to the most recent review of the experience study, Segal concluded, "Milliman has employed generally accepted actuarial practices and principles in studying Plan experience, selecting assumptions, computing employer contribution rates, and presenting the results of their work. We believe that the actuarial assumptions as recommended by Milliman, as well as those approved by the LACERA Board of Investments, are reasonable for use in LACERA's actuarial valuation." The review of Milliman's valuation report, according to Segal, "confirms that the actuarial calculations as of June 30, 2016 are reasonable and based on generally accepted actuarial principles and practices."

Other Actuarial Information

Actuarially Determined Contributions: The Schedule of Contributions History — Pension Plan included in the Required Supplementary Information of the Financial Section provides 10 years of actuarially determined contributions in relation to the actual contributions provided to the Pension Plan.

Actuarial Methods and Assumptions: A detailed description of the actuarial methods and assumptions for the Pension Plan valuation used by the Pension Plan consulting actuary is included in this Actuarial Section. In addition, the Financial Section provides a summary of the actuarial methods and significant assumptions used to prepare the Pension Plan (Retirement Benefits) valuation report, which determines the Pension Plan's funding requirements. The Financial Section also discusses the actuarial methods and significant assumptions used for financial reporting and required Governmental Accounting Standards Board (GASB) Statement No. 67 disclosures. Any differences between these assumptions used for actuarial funding and those applied for financial reporting purposes are noted.

The following additional information is included in this section:

- Actuary's Certification Letter — Pension Plan
- Summary of Actuarial Methods and Assumptions — Pension Plan
- Schedule of Funding Progress — Pension Plan
- Active Member Valuation Data — Pension Plan
- Retirants and Beneficiaries Added to and Removed from Retiree Payroll — Pension Plan
- Actuary Solvency Test — Pension Plan
- Actuarial Analysis of Financial Experience — Pension Plan
- Probability of Occurrence

A Summary of Major Pension Plan Provisions is available upon request.

See Note A in the Financial Section for plan description information.

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September 20, 2019

Board of Investments
Los Angeles County Employees Retirement Association
300 North Lake Avenue, Suite 820
Pasadena, CA 91101-4199

Dear Members of the Board:

The basic financial goal of LACERA is to establish contributions which fully fund the System's liabilities and which, as a percentage of payroll, remain level for each generation of active members.¹ Annual actuarial valuations measure the progress toward this goal, as well as test the adequacy of the contribution rates.

LACERA measures its funding status as the Funded Ratio, which is equal to the actuarial value of valuation assets over the actuarial accrued liabilities. The funding status based on the past three actuarial valuations is shown below:

Valuation Date	Funded Ratio
June 30, 2016	79.4%
June 30, 2017	79.9%
June 30, 2018	80.6%

It is our opinion that LACERA continues in sound financial condition as of June 30, 2018. Most of this year's increase in the Funded Ratio is due to employer contributions to amortize the Unfunded Actuarial Accrued Liability (UAAL) and recognition of current and past years' investment performance. Using the market value of assets on June 30, 2018, the Funded Ratio would be 81.3%. Currently, a net asset gain is being deferred.

LACERA's funding policy provides that the County's contributions are equal to the normal cost rate, net of member contributions, plus the amortization payment of any Unfunded Actuarial Accrued Liability (UAAL) or minus the amortization of any Surplus Funding. A UAAL occurs when the Funded Ratio is less than 100%. The amortization of the UAAL uses a layered 30-year approach, under which the UAAL as of June 30, 2009 is amortized over a closed 30-year period. Each year thereafter, any increase or decrease in the UAAL is amortized over a new closed 30-year period. Surplus Funding occurs when the Funded Ratio is greater than 120%. If the Funded Ratio exceeds 120% and all conditions in California Government Code Section 7522.52(b) are satisfied, then the Surplus Funding is amortized over an open 30-year period.

¹ A further goal is to minimize employer contributions, consistent with the requirements of Article XVI, Section 17 of the California Constitution and Section 31595 of the California Government Code.

The current funding policy requires LACERA to consider all of the funds in the Contingency Reserve in excess of 1% of the market value of assets as part of the valuation assets. The STAR Reserve is also considered part of the valuation assets. The Board's policy does not include any corresponding liability for future STAR benefits in the valuation. Note that if all of the STAR Reserve funds were excluded from the valuation assets for funding purposes, the Funded Ratio on June 30, 2018 would decrease to 79.7%.

In preparing the June 30, 2018 valuation report, we relied, without audit, on information (some oral and some in writing) supplied by LACERA. This information includes, but is not limited to, statutory provisions, employee data, and financial information. In our examination of these data we have found them to be reasonably consistent and comparable with data used for other purposes, although we have not audited the data at the source. Since the valuation results are dependent on the integrity of the data supplied, the results can be expected to differ if the underlying data is incomplete or missing. It should be noted that if any data or other information is inaccurate or incomplete, our calculations may need to be revised.

The valuation is also based on our understanding of LACERA's current benefit provisions and the actuarial assumptions which were reviewed and adopted by the Board of Investments. The funding assumptions were based on the triennial investigation of experience study report as of June 30, 2016 and adopted at the December 14, 2016 Board of Investments meeting. The assumptions and methods used for financial reporting under GASB 67 are the same as the funding assumptions and methods with the following exceptions:

1. The discount rate of 7.38% is gross of administrative expenses;
2. The STAR COLA is treated as substantively automatic and is valued to the extent it is projected to be paid in the future; and
3. The individual entry age normal cost method is used without modification.
4. The Fiduciary Net Position is equal to the market value of assets minus liabilities.

The actuarial computations presented in the valuation report are for purposes of determining the recommended funding amounts for LACERA consistent with our understanding of their funding requirements and goals. The liabilities are determined by using the entry age normal funding method. The actuarial assets are determined by using a five-year smoothed recognition method of asset gains and losses, determined as the difference of the actual market value to the expected market value. We believe the actuarial assumptions and methods are internally consistent and reasonable for their intended purpose.

Future actuarial measurements may differ significantly from the current measurements as presented in the valuation report and GASB 67 report due to such factors as the following: experience differing from that anticipated by the economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and changes in the program provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements.



Milliman's work is prepared exclusively for LACERA for a specific and limited purpose. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. It is a complex, technical analysis that assumes a high level of knowledge concerning LACERA's operations.

No third party recipient of Milliman's work product who desires professional guidance should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their specific needs.

The consultants who worked on this assignment are retirement actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel. The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

Milliman prepared the following information for the actuarial section:

1. Retirees and Beneficiaries Added to and Removed from Benefits - Pension
2. Actuarial Analysis of Financial Experience - Pension
3. Actuary Solvency Test - Pension
4. Schedule of Funding Progress - Pension

In addition, for Note E - Pension Plan Liabilities of the financial section, Milliman prepared the Schedule of Net Pension Liability, and Sensitivity Analysis.

Except as noted above, LACERA staff prepared the information in Note E and the Required Supplementary Information, based on information supplied in prior actuarial reports, our June 30, 2018 actuarial valuation, and our June 30, 2019 GASB 67 report. Milliman has reviewed the information in Note E for accuracy.

We certify that the assumptions and methods used for funding and financial reporting purposes in the June 30, 2018 funding valuation meet the parameters set by Actuarial Standards of Practice promulgated by the Actuarial Standards Board (ASB). We are members of the American Academy of Actuaries and have experience in performing valuations for public retirement systems.

Sincerely,

A handwritten signature in brown ink that reads 'Mark C. Olleman'.

Mark C. Olleman, FSA, EA, MAAA
Principal and Consulting Actuary

MCO/NJC/arh

A handwritten signature in brown ink that reads 'Nick Collier'.

Nick J. Collier, ASA, EA, MAAA
Principal and Consulting Actuary

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Summary of Actuarial Methods and Assumptions — Pension Plan	
Actuarial Methods and Assumptions	Recommended by Milliman, the consulting actuary, and adopted by the LACERA Board of Investments. The actuarial assumptions used to determine the liabilities are based on the results of the 2016 experience study. In December 2016, the LACERA Board of Investments adopted a decrease in the price inflation rate and other economic assumptions. In 2009, the Board of Investments adopted a new Funding Policy. Under the Funding Policy, modifications to the asset valuation and amortization methods were adopted beginning with the June 30, 2009 actuarial valuation. The Funding Policy was amended in February 2013 to conform with the new standards mandated in the PEPRA and to specify that the Supplemental Targeted Adjustment for Retirees (STAR) Reserve should be included as a valuation asset on an ongoing basis.
Actuarial Cost Method	Entry Age Normal.
Actuarial Asset Valuation Method	The assets are valued using a five-year smoothed method based on the difference between expected and actual market value of assets as of the valuation date. The gains and losses on market value are recognized over a five-year period to spread out the impact of investment market performance, rather than recognizing the entire impact each year. The expected market value is the prior year's market value increased with the net cash flow of funds, all increased with interest during the past fiscal year at the expected investment return rate assumption. The five-year smoothing valuation basis for all assets was adopted beginning with the June 30, 2009 valuation. The inclusion of the STAR Reserve in the valuation assets was formalized for current and future actuarial valuations in the February 2013 amendment to LACERA's Funding Policy. Since the June 30, 2013 valuation, Milliman has included the STAR Reserve as part of the valuation assets.
Amortization of Unfunded Actuarial Accrued Liability (UAAL) or Funding Surplus	In accordance with LACERA's Funding Policy, the employer contribution rates are set equal to the normal cost rate, net of expected member contributions for the next year, plus amortization of any UAAL or Surplus Funding. A UAAL occurs if the Funded Ratio is less than 100 percent. Surplus Funding occurs if the Funded Ratio is greater than 120 percent. The amortization of the UAAL beginning with the June 30, 2009 valuation is funded over a closed 30-year period. Any future unanticipated changes in the UAAL, such as assumption changes or actuarial gains and losses, are amortized over new closed 30-year periods beginning with the June 30, 2010 valuation. This approach is often referred to as a "layered amortization method." The employer contribution rate is not allowed to be less than the rate if LACERA amortized the total UAAL over a 30-year period. If the Funded Ratio is greater than 120 percent in future valuations, the amortization of any Surplus Funding is funded over an open or "rolling" 30-year period. If the Funded Ratio is between 100 and 120 percent, only the employer normal cost rate is contributed. For the June 30, 2018 valuation, ten amortization layers were used to calculate the total amortization payment beginning July 1, 2019.

Summary of Actuarial Methods and Assumptions — Pension Plan	
Projected Salary Increases	Rates of annual salary increases assumed for the purpose of the valuation range from 3.51 percent to 11.51 percent. In addition to increases in salary due to promotions and longevity, the increases include an assumed 3.25 percent per annum rate of increase in the general wage level of membership. Increases are assumed to occur mid-year (i.e., January 1) and apply only to base salary, excluding Megaflex compensation. The mid-year timing reflects that salary increases occur throughout the year, or on average, mid-year. For plans with a one-year final average compensation period, actual average annual compensation is used. These rates were adopted beginning with the June 30, 2016 valuation
Investment Rate of Return	Future investment earnings are assumed to accrue at an annual rate of 7.25 percent, compounded annually, net of both investment and administrative expenses. The same rate of return is used to discount the actuarial accrued liability. This rate was adopted beginning with the June 30, 2016 valuation.
Post-Retirement Benefit Increases	Post-retirement benefit increases of either 2.75 percent or 2.0 percent per year are assumed for the valuation in accordance with the benefits provided. These adjustments, which are based on the Consumer Price Index (CPI), are assumed payable each year in the future, as they are no greater than the expected increase in the CPI of 2.75 percent per year. Plan E members receive a prorated post-retirement benefit increase of 2.0 percent for service credit earned on and after June 4, 2002. The portion payable is based on a ratio of the member's years of service earned on and after June 4, 2002, to the member's total years of service. The portion of the full 2.0 percent increase not provided for may be purchased by the member. COLA adjustments for members with service credit earned prior to June 4, 2002, are based on a ratio of months of service earned on and after June 4, 2002, divided by the total months of service.
Consumer Price Index (CPI)	Increase of 2.75 percent per annum. This rate was adopted beginning with the June 30, 2016 valuation.
Rates of Separation From Employment	Various rates dependent upon member's age, gender, years of service, and retirement plan. Each rate represents the probability that a member will separate from service at each age (or service duration) due to the particular cause. These rates of separation from active service were adopted beginning with the June 30, 2016 valuation. The Probability of Occurrence schedule included in this Actuarial Section includes a summary of probability of retirement and withdrawal for sample ages.

Summary of Actuarial Methods and Assumptions — Pension Plan	
Expectation of Life After Retirement ^{1, 2}	The same post-retirement mortality rates are used in the valuation for deferred inactive members, members retired from service, and beneficiaries. Beneficiaries are assumed to have the same mortality as a general member of the opposite sex. Males: General Members: RP–2014 Healthy Annuitant Mortality Table for Males multiplied by 105 percent, with MP–2014 Ultimate Projection Scale. Safety Members: RP–2014 Healthy Annuitant Mortality Table for Males multiplied by 95 percent, with MP–2014 Ultimate Projection Scale. Females: General Members: RP–2014 Healthy Annuitant Mortality Table for Females, with MP–2014 Ultimate Projection Scale. Safety Members: RP–2014 Healthy Annuitant Mortality Table for Females, with MP–2014 Ultimate Projection Scale. These rates were adopted effective June 30, 2016.
Expectation of Life After Disability ^{1, 2}	Males: General Members: Average of RP–2014 Healthy Annuitant Mortality Table for Males multiplied by 105 percent and RP–2014 Disabled Annuitant Mortality Table for Males, both projected with MP–2014 Ultimate Projection Scale. Safety Members: RP–2014 Healthy Annuitant Mortality Table for Males, with MP–2014 Ultimate Projection Scale. Females: General Members: Average of RP–2014 Healthy Annuitant Mortality Table for Females multiplied by 100 percent and RP–2014 Disabled Annuitant Mortality Table for Males, both projected with MP–2014 Ultimate Projection Scale. Safety Members: RP–2014 Healthy Annuitant Mortality Table for Females, with MP–2014 Ultimate Projection Scale. These rates were adopted effective June 30, 2016.

⁽¹⁾ The RP-2014 mortality tables were published by the Society of Actuaries (SOA's) Retirement Plans Experience Committee (RPEC) in October 2014. The data studied includes more than 10 million life-years of exposure over the period 2004 to 2008, and includes separate mortality tables for healthy annuitants, disabled retirees, and employees. These mortality tables reflect adjustments, using mortality improvement scale MP-2014 (discussed further below), to account for changes in mortality between the period of experience and 2014.

⁽²⁾ The SOA's Mortality Improvement Scale MP-2014 (published in October 2014) is used to adjust the RP-2014 mortality tables to account for anticipated changes in mortality rates in future years. In general, it is assumed that mortality rates will improve (implying longer lifetimes) in future due partially to improvements in healthcare.

Summary of Actuarial Methods and Assumptions — Pension Plan	
Recent Changes and Their Financial Impact	An experience study was performed by the consulting actuary for the three-year period ended June 30, 2016. The LACERA Board of Investments adopted the demographic assumptions recommended in that report with a modification to the mortality improvement scale, and with a three-year phase-in of the impact of the change on employer contribution rates. In addition, the Board of Investments adopted reductions in the economic assumptions. Changes to those assumptions and other financial impacts are discussed below. STAR Reserve: The STAR Reserve is included in the 2018 valuation assets. There is no corresponding liability for future potential STAR benefits included in the valuation. The inclusion of the STAR Reserve in the valuation assets was formalized for the current and future actuarial valuations in the February 2013 amendment to LACERA's Funding Policy. 2016 Assumption Changes: At the December 2016 LACERA Board of Investments meeting, the Board adopted new assumptions with the 2016 Investigation of Experience report. The adopted assumptions included a decrease in the investment return assumption to 7.25 percent, a decrease in the wage growth assumption to 3.25 percent, a decrease in the CPI assumption to 2.75 percent, and an increase in life expectancies. All assumption changes have been reflected in the June 30, 2018 actuarial valuation, although the impact on the employer contribution rate is being phased in over three years. Employer Contributions: The total required employer contribution rate calculated in the 2018 valuation increased over the prior year by 0.87 percent of payroll. The increase is primarily due to the additional year of phase-in of the cost impact of the 2016 assumption changes (0.96 percent of payroll) adopted by the LACERA Board of Investments effective June 30, 2016. This increase was partially offset by typical year-to-year fluctuations, including the impact of strong investment returns. The cost impact of the assumption changes has been fully phased into the employer contribution rate as of the June 30, 2018 valuation. Member Contributions: New member contribution rates were implemented for Safety Plan C effective July 1, 2019, based on the normal cost rates calculated in the 2018 valuation. The recommended member rate for Safety Plan C is 13.69 percent, compared to 13.87 percent effective July 1, 2018. No changes in member rates were implemented for the other plans. Note that although General Plan G member rates are subject to change every year, the Plan G Normal Cost rate was identical to last year, and therefore the associated member rate remains the same. Funding: The Funded Ratio increased from 79.9 percent to 80.6 percent primarily due to employer contributions to amortize the UAAL and the recognition of current and prior year asset gains, which caused a 0.7 percent increase.

Schedule of Funding Progress — Pension Plan

(Dollars in Thousands)

Actuarial Valuation Date	Actuarial Value of Valuation Assets (a)	Actuarial Accrued Liability (AAL) ¹ (b)	Unfunded Actuarial Accrued Liability (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll ² (c)	UAAL as a Percentage of Covered Payroll [(b-a)/c]
June 30, 2009	\$39,541,865	\$44,468,636	\$4,926,771	88.9%	\$6,547,616	75.2%
June 30, 2010	38,839,392	46,646,838	7,807,446	83.3%	6,695,439	116.6%
June 30, 2011	39,193,627	48,598,166	9,404,539	80.6%	6,650,674	141.4%
June 30, 2012	39,039,364	50,809,425	11,770,061	76.8%	6,619,816	177.8%
June 30, 2013	39,932,416	53,247,776	13,315,360	75.0%	6,595,902	201.9%
June 30, 2014	43,654,462	54,942,453	11,287,991	79.5%	6,672,886	169.2%
June 30, 2015	47,328,270	56,819,215	9,490,945	83.3%	6,949,420	136.6%
June 30, 2016	49,357,847	62,199,214	12,841,367	79.4%	7,279,777	176.4%
June 30, 2017	52,166,307	65,310,803	13,144,496	79.9%	7,637,032	172.1%
June 30, 2018	\$55,233,108	\$68,527,354	\$13,294,246	80.6%	\$7,957,981	167.1%

⁽¹⁾ Using the Entry Age Normal actuarial cost method.

⁽²⁾ Covered Payroll includes compensation paid to all active employees on which contributions are calculated.

Active Member Valuation Data — Pension Plan

Valuation Date	Plan Type	Member Count	Annual Salary ¹	Average Annual Salary	Percentage Increase/ (Decrease) in Average Salary
June 30, 2009	General	82,878	\$5,347,558,596	\$64,523	5.03%
	Safety	12,910	1,239,655,092	96,023	3.74%
	Total	95,788	\$6,587,213,688	\$68,769	4.74%
June 30, 2010	General	81,413	\$5,318,137,692	\$65,323	1.24%
	Safety	12,997	1,257,305,532	96,738	0.75%
	Total	94,410	\$6,575,443,224	\$69,648	1.28%
June 30, 2011	General	80,145	\$5,295,354,528	\$66,072	1.15%
	Safety	12,641	1,239,553,116	98,058	1.36%
	Total	92,786	\$6,534,907,644	\$70,430	1.12%
June 30, 2012	General	79,467	\$5,271,580,728	\$66,337	0.40%
	Safety	12,485	1,229,922,420	98,512	0.46%
	Total	91,952	\$6,501,503,148	\$70,705	0.39%
June 30, 2013	General	79,006	\$5,253,152,532	\$66,491	0.23%
	Safety	12,539	1,234,902,228	98,485	(0.03%)
	Total	91,545	\$6,488,054,760	\$70,873	0.24%
June 30, 2014	General	79,943	\$5,487,670,164	\$68,645	3.24%
	Safety	12,523	1,252,867,272	100,045	1.58%
	Total	92,466	\$6,740,537,436	\$72,897	2.86%
June 30, 2015	General	81,228	\$5,706,302,532	\$70,250	2.34%
	Safety	12,446	1,299,621,108	104,421	4.37%
	Total	93,674	\$7,005,923,640	\$74,790	2.60%
June 30, 2016	General	82,916	\$5,949,587,940	\$71,754	2.14%
	Safety	12,528	1,342,684,620	107,175	2.64%
	Total	95,444	\$7,292,272,560	\$76,404	2.16%
June 30, 2017	General	84,513	\$6,290,061,336	\$74,427	3.73%
	Safety	12,698	1,388,190,600	109,324	2.01%
	Total	97,211	\$7,678,251,936	\$78,985	3.38%
June 30, 2018	General	85,703	\$6,610,313,328	\$77,130	3.63%
	Safety	12,771	1,451,457,324	113,653	3.96%
	Total	98,474	\$8,061,770,652	\$81,867	3.65%

⁽¹⁾Active Member Valuation Annual Salary is an annualized compensation of only those members who were active on the actuarial valuation date. Covered Payroll includes compensation paid to all active employees on which contributions are calculated.

Retirants and Beneficiaries Added to and Removed from Retiree Payroll — Pension Plan
(Dollars in Thousands)

		Added to Rolls		Removed from Rolls		Rolls at End of Year			
Valuation Date	Member Count	Annual Allowance ¹	Member Count	Annual Allowance	Member Count	Annual Allowance ¹	Percentage Increase in Retiree Allowance	Average Annual Allowance	
June 30, 2009	2,505	\$157,469 ²	(1,786)	(\$50,619)	53,069	\$2,085,725	5.40%	\$39.3	
June 30, 2010	2,947	188,724 ²	(1,820)	(54,105)	54,196 ³	2,220,344	6.45%	41.0	
June 30, 2011	3,134	185,204 ²	(1,959)	(62,923)	55,371	2,342,625	5.51%	42.3	
June 30, 2012	3,194	193,865 ²	(1,795)	(61,588)	56,770 ³	2,474,902	5.65%	43.6	
June 30, 2013	3,373	205,659 ²	(2,057)	(69,494)	58,086 ³	2,611,067	5.50%	45.0	
June 30, 2014	3,128	172,743 ²	(1,985)	(71,730)	59,229 ³	2,712,080	3.87%	45.8	
June 30, 2015	3,501	180,549 ²	(2,124)	(80,028)	60,606 ³	2,812,601	3.71%	46.4	
June 30, 2016	3,479	220,632 ²	(2,171)	(80,881)	61,914 ³	2,952,352	4.97%	47.7	
June 30, 2017	3,721	245,915 ²	(2,311)	(89,624)	63,324 ³	3,108,643	5.29%	49.1	
June 30, 2018	3,826	\$276,118 ²	(2,270)	(\$89,033)	64,880 ³	\$3,295,728	6.02%	\$50.8	

⁽¹⁾ Annual Allowance is the monthly benefit allowance annualized for those members counted as of June 30.

⁽²⁾ Includes COLAs that occurred during the fiscal year and therefore were not included in the previous years' Annual Allowance totals.

⁽³⁾ For the actuarial valuation year, Member Count includes retirees who, due to timing at year end, are not yet included in the total Retired Members count disclosed in the Financial Section, see Note A - Plan Description.

ACTUARIAL SECTION

Actuary Solvency Test — Pension Plan

(Dollars in Millions)

Actuarial Accrued Liability (AAL) for					Portion of AAL Covered by Assets		
Actuarial Valuation Date	(A) Active Member Contributions	(B) Retirees and Beneficiaries ¹	(C) Active Members (Employer Financed Portion)	Actuarial Value of Valuation Assets			
					(A) Active	(B) Retired	(C) Employer
June 30, 2009	\$5,795	\$24,692	\$13,982	\$39,542	100%	100%	65%
June 30, 2010	6,278	26,220	14,148	38,839	100%	100%	45%
June 30, 2011	6,529	27,559	14,511	39,194	100%	100%	35%
June 30, 2012	6,961	29,118	14,730	39,039	100%	100%	20%
June 30, 2013	7,837	30,980	14,430	39,932	100%	100%	8%
June 30, 2014	8,354	31,882	14,706	43,654	100%	100%	23%
June 30, 2015	8,805	32,734	15,280	47,328	100%	100%	38%
June 30, 2016	8,767	35,316	18,116	49,358	100%	100%	29%
June 30, 2017	9,482	37,077	18,752	52,166	100%	100%	30%
June 30, 2018	\$9,882	\$39,192	\$19,453	\$55,233	100%	100%	32%

⁽¹⁾ Includes vested and non-vested former members.

ACTUARIAL SECTION

Actuarial Analysis of Financial Experience — Pension Plan

(Dollars in Millions)

	Valuation as of June 30									
	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Unfunded Actuarial Accrued Liability	\$13,145	\$12,841	\$9,491	\$11,288	\$13,315	\$11,770	\$9,405	\$7,807	\$4,927	\$2,313
Expected Increase/(Decrease) from Prior Valuation	146	320	2,820	(54)	338	1,380	772	565	333	(78)
Salary Increases Greater/(Less) than Expected	223	277	162	79	(291)	(563)	(629)	(579)	(353)	380
CPI Less than Expected	45	(139)	(191)	(570)	(427)	(190)	(181)	(215)	(29)	(4)
Asset Return Less/(Greater) than Expected	(411)	(421)	496	(1,263)	(1,664)	893	2,337	1,761	2,879	2,465
All Other Experience	146	267	63	11	17	25	66	66	50	(149)
Ending Unfunded Actuarial Accrued Liability	\$13,294	\$13,145	\$12,841	\$9,491	\$11,288	\$13,315	\$11,770	\$9,405	\$7,807	\$4,927

Probability of Occurrence

Plans A, B, and C General Members

Age	Service Retirement	Service Disability	Ordinary Disability	Service Death	Ordinary Death	Other Terminations
Male						
20	0.0000	0.0002	0.0001	N/A	0.0003	0.0050
30	0.0000	0.0002	0.0001	N/A	0.0004	0.0050
40	0.0300	0.0006	0.0002	N/A	0.0006	0.0050
50	0.0300	0.0011	0.0004	N/A	0.0014	0.0050
60	0.2600	0.0045	0.0010	N/A	0.0038	0.0050
70	0.2800	0.0045	0.0025	N/A	0.0113	0.0050
75	1.0000	0.0000	0.0000	N/A	0.0189	0.0000
Female						
20	0.0000	0.0002	0.0001	N/A	0.0002	0.0050
30	0.0000	0.0002	0.0001	N/A	0.0002	0.0050
40	0.0300	0.0005	0.0002	N/A	0.0004	0.0050
50	0.0300	0.0013	0.0004	N/A	0.0011	0.0050
60	0.2600	0.0025	0.0010	N/A	0.0024	0.0050
70	0.2800	0.0030	0.0025	N/A	0.0063	0.0050
75	1.0000	0.0000	0.0000	N/A	0.0108	0.0000

Plans D and G General Members

Age	Service Retirement	Service Disability	Ordinary Disability	Service Death	Ordinary Death	Years of Service	Other Terminations
Male							
20	0.0000	0.0002	0.0001	N/A	0.0003	5	0.0233
30	0.0000	0.0002	0.0001	N/A	0.0004	10	0.0170
40	0.0150	0.0006	0.0002	N/A	0.0006	15	0.0120
50	0.0150	0.0011	0.0004	N/A	0.0014	20	0.0076
60	0.0600	0.0045	0.0010	N/A	0.0038	25	0.0048
70	0.2000	0.0045	0.0025	N/A	0.0113	30 & up	0.0000
75	1.0000	0.0000	0.0000	N/A	0.0189		
Female							
20	0.0000	0.0002	0.0001	N/A	0.0002	5	0.0233
30	0.0000	0.0002	0.0001	N/A	0.0002	10	0.0170
40	0.0150	0.0005	0.0002	N/A	0.0004	15	0.0120
50	0.0150	0.0013	0.0004	N/A	0.0011	20	0.0076
60	0.0600	0.0025	0.0010	N/A	0.0024	25	0.0048
70	0.2000	0.0030	0.0025	N/A	0.0063	30 & up	0.0000
75	1.0000	0.0000	0.0000	N/A	0.0108		

Probability of Occurrence (continued)

Plan E General Members

Age	Service Retirement	Service Disability	Ordinary Disability	Service Death	Ordinary Death	Years of Service	Other Terminations
Male							
20	0.0000	N/A	N/A	N/A	0.0003	5	0.0310
30	0.0000	N/A	N/A	N/A	0.0004	10	0.0200
40	0.0000	N/A	N/A	N/A	0.0006	15	0.0144
50	0.0000	N/A	N/A	N/A	0.0014	20	0.0108
60	0.0400	N/A	N/A	N/A	0.0038	25	0.0100
70	0.2000	N/A	N/A	N/A	0.0113	30 & up	0.0100
75	1.0000	N/A	N/A	N/A	0.0189		
Female							
20	0.0000	N/A	N/A	N/A	0.0002	5	0.0310
30	0.0000	N/A	N/A	N/A	0.0002	10	0.0200
40	0.0000	N/A	N/A	N/A	0.0004	15	0.0144
50	0.0000	N/A	N/A	N/A	0.0011	20	0.0108
60	0.0400	N/A	N/A	N/A	0.0024	25	0.0100
70	0.2000	N/A	N/A	N/A	0.0063	30 & up	0.0100
75	1.0000	N/A	N/A	N/A	0.0108		

Plans A, B, and C Safety Members

Age	Service Retirement	Service Disability	Ordinary Disability	Service Death	Ordinary Death	Years of Service	Other Terminations
Male							
20	0.0000	0.0020	0.0000	0.0001	0.0002	5	0.0113
30	0.0000	0.0020	0.0000	0.0001	0.0005	10	0.0076
40	0.0100	0.0028	0.0000	0.0001	0.0005	15	0.0042
50	0.0100	0.0100	0.0000	0.0001	0.0009	20 & up	0.0000
60	0.3000	0.1000	0.0000	0.0001	0.0025		
Female							
20	0.0000	0.0030	0.0000	0.0001	0.0002	5	0.0113
30	0.0000	0.0042	0.0000	0.0001	0.0002	10	0.0076
40	0.0100	0.0092	0.0000	0.0001	0.0004	15	0.0042
50	0.0100	0.0180	0.0000	0.0001	0.0011	20 & up	0.0000
60	0.3000	0.0800	0.0000	0.0001	0.0024		

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Actuarial Information Overview — Other Post-Employment Benefits (OPEB) Program

Introduction

The actuarial valuation of the retiree medical, dental/vision, and death benefits promised to retired Los Angeles County (County) workers who also participate in the LACERA retirement benefits plan is governed by provisions in the LACERA Other Post-Employment Benefits (OPEB) Actuarial Valuation and Audit Policy (OPEB Policy), which the LACERA Board of Retirement establishes and adopts. The OPEB Policy is subject to periodic assessments to identify and incorporate necessary updates and revisions. In October 2017, the OPEB Policy (as discussed below) was revised and now parallels the policy applicable to the retirement benefits actuarial valuation and related review.

The OPEB actuarial valuations are performed at the County's request to review program funding metrics and to satisfy financial statement reporting guidelines that apply to sponsoring employers, such as the County, and those organizations who administer OPEB benefit programs, such as LACERA.

Funding Policy and Contributions

The County historically discharged its premium subsidy obligations on a pay-as-you-go basis. LACERA bills the healthcare premiums to the County and members on a monthly basis. Plan members are required to pay the difference between the employer-paid subsidy and the actual premium cost. An administrative fee to cover the costs of administering the OPEB Program is included in the monthly premium.

In June 2015, the County Board of Supervisors approved the county-wide budget with a dedicated funding promise for the OPEB liability, using the multi-year approach to enhance the County's OPEB Trust in a consistent manner. This funding commitment provides pre-funding goals and indicates that the County has placed a priority on making OPEB contributions. The County, Superior Court, and LACERA regularly prefund these obligations, depositing monies into an irrevocable OPEB Trust. The plan sponsors provide updated funding projections each year. Milliman reviewed the adequacy of the Plan Sponsor funding policies and found them to be in compliance with Actuarial Standards of Practice (ASOP) Number 6.

OPEB Policy

LACERA will periodically perform all OPEB actuarial projects to:

- Establish the actuarially determined values of the County's OPEB Program liabilities.
- Validate that such an appraisal reflects actual experiences and appropriate assumptions.
- Certify that the appraisal is determined in accordance with all legislative, regulatory and professional standards.

OPEB Policy Objectives

The objectives that provide the guiding principles in the development and implementation of the OPEB Policy include the following:

- Comply with the financial reporting requirements mandated by the Governmental Accounting Standards Board (GASB).
- Ensure data and assumptions used in the valuation are, when appropriate, consistent with those used in the valuation of retirement benefits.
- Promote operating effectiveness and optimize cost efficiencies where possible.
- Mirror the policy and principles guiding the retirement benefits actuarial projects.

- Coordinate consistently and efficiently with external audits of LACERA's financial statements when appropriate.

Types and Frequency of OPEB Actuarial Projects

Valuation: A calculation of the actuarial values in accordance with all relevant legislative, regulatory, and professional requirements and standards.

- Required by: GASB
- Performed by: OPEB Consulting Actuary
- Frequency: Every year (annual)
- Rationale:
 - GASB requires the net OPEB liability measured as the total OPEB liability, less the amount of the OPEB program's fiduciary net position by employer.
 - The total OPEB liability and other OPEB cost related items are generally required to be determined through an actuarial valuation.
 - Actuarial valuations of the total OPEB liability must be performed at least every two years, with more frequent valuations encouraged.
 - All assumptions underlying the determination of the total OPEB liability must conform to the guidance in ASOP issued by the Actuarial Standards Board.
 - To ensure data and assumptions used in the OPEB valuation are consistent with the retirement benefits valuation, the OPEB Policy requires each annual OPEB valuation immediately after the annual retirement benefits valuation for the same fiscal year ending.
 - The OPEB Policy promotes operating efficiency by leveraging the efforts of the consulting actuary to complete two projects with each mobilization.

Experience and Assumption Study: An investigation of the experience and review of the assumptions used in the OPEB valuation.

- Required by: OPEB Policy
- Performed by: OPEB Consulting Actuary
- Frequency: Every three years (triennial)
- Rationale:
 - The County Employees Retirement Law of 1937 (1937 Act) requires an investigation of experience and assumption study (experience study) for LACERA retirement benefit assumptions performed triennially (every three years) to reset member contribution rates as appropriate. Certain experience data and assumptions from the retirement benefits valuation provide essential input variables to the experience study for the OPEB program.
 - To ensure data and assumptions common to both experience studies are used consistently, the Policy requires an experience study for the OPEB program to follow each experience study for the retirement benefits plan.
 - The OPEB Policy promotes operating efficiency by leveraging the efforts of the consulting actuary to complete two projects with each mobilization.

Valuation Review: A triennial review of the OPEB valuation, including a parallel valuation (i.e., an independent reproduction of the detailed valuation results).

- Required by: OPEB Policy
- Performed by: OPEB Reviewing Actuary
- Frequency: Every three years (triennial)
- Rationale:
 - The 1937 Act requires the LACERA retirement benefits valuation be performed triennially. The Retirement Benefit Funding Policy (dated February 13, 2013 as amended) is currently

in effect between the County and LACERA, which requires the retirement benefits valuation to be performed annually.

- As a recognized leader in public pension plan administration, LACERA has long implemented the prudent policy and practice of performing triennial reviews of the retirement benefits valuation.
- Governmental Finance Officers Association (GFOA) best practices recommend a comprehensive “audit” performed by an independent actuary of a pension plan’s actuarial valuations at least once every five years.
- Consistent with policy and practice of the retirement benefits valuation and audit cycle, this Policy requires a review (i.e., audit) of the OPEB valuation be performed triennially. This Policy is consistent with GFOA best practices regarding actuarial audits.

Experience and Assumption Study Review: A review of the OPEB experience study is performed in conjunction with the review of the OPEB valuation.

- Required by: OPEB Policy
- Performed by: OPEB Reviewing Actuary
- Frequency: Every three years (triennial)
- Rationale:
 - The 1937 Act requires an experience study performed triennially for the LACERA retirement benefits plan.
 - As a recognized leader in public pension plan administration, LACERA has long implemented the prudent policy and practice of performing a review of each triennial experience study for the retirement benefits plan.
 - Consistent with policy and practice of the retirement benefits valuation and audit cycle, and for cost-benefit optimization, the OPEB Policy requires a review of the OPEB experience study performed each time a triennial OPEB experience study is completed (see the previous section thereof).
 - Promoting operating efficiency by leveraging the efforts of the reviewing actuary teams in completing two projects with each mobilization, the OPEB Policy requires a review of the OPEB valuation immediately after a review of the OPEB experience study.

Actuarial Cost Method

OPEB valuations beginning with the July 1, 2006 OPEB valuation have been prepared under the projected unit credit actuarial cost method. At that time, the County and LACERA worked together with a stakeholder group and selected projected unit credit as the cost method which best reflected the liabilities. Under this method, the actuarial present value of the projected benefits of each individual included in the valuation is allocated pro-rata to each year of service between entry age and assumed exit. For members who transferred between plans, entry age is based on original entry into the LACERA retirement benefits plan.

Effective with the July 1, 2018 OPEB valuation, the actuarial cost method was changed to entry age normal. Under the principles of this method, the actuarial present value of the projected benefits of each individual included in the valuation is allocated as a level percentage of the individual’s projected compensation between entry age and assumed exit (until maximum retirement age). For members who transferred between plans, entry age is based on original entry into the system. The entry age normal actuarial cost method is also used for financial reporting purposes as required by GASB Statement No. 74.

OPEB Agent Plan

The July 1, 2018 OPEB valuation marks the first valuation prepared under an agent plan structure, changing OPEB funding reporting from the cost-sharing plan structure used in OPEB valuations since July 1, 2006. At the direction of the County to precisely allocate its own liabilities, the agent plan structure allows for projecting the actuarial accrued liability based on each individual agent's assets and investment rate of return assumptions. The investment earnings assumption for agents that are pre-funding through the OPEB Trust is the expected return for the OPEB Trust. The investment earnings assumption for the agents that are not pre-funding through the OPEB Trust have an investment earnings assumption of the County's general funds' expected return. However, OPEB specific demographic assumptions such as initial enrollment, plan and tier selection, spouse age difference, and re-enrollment assumptions are combined for all of the agents.

The following agents and agent groupings were developed to determine the liability for the individual agents, the total OPEB Trust, and the total OPEB Program:

- Los Angeles County
- Superior Court
- LACERA
- Los Angeles County, Superior Court, and LACERA (total OPEB Trust)
- Los Angeles County, Superior Court, LACERA, and Outside Districts (total OPEB Program)

The total OPEB Program agent grouping is used to disclose the aggregate amounts throughout the Actuarial Section.

Recent Financial Reporting Standards

In June 2015, the GASB issued Statement No. 74 and Statement No. 75, which govern new accounting and financial reporting standards for public sector post-retirement benefit programs and the employers that sponsor them. GASB 74 and 75 superseded GASB 43 and 45. GASB Statements 74 and 75 reflect a fundamental overhaul in the standards for accounting and financial reporting for post-employment benefits other than pensions (OPEB). The information required to be noted and disclosed as a result of GASB 74 is a foundational basis for the information required by GASB 75.

GASB 74 is for OPEB plans (LACERA) and was effective beginning for the plan fiscal year ended as of June 30, 2017¹. GASB 75 is for employers that sponsor OPEB plans and is effective beginning for the employer fiscal year ended as of June 30, 2018². The data, assumptions, program provisions, and funding goals described in the OPEB valuation report serve as a basis for the GASB 74 and 75 disclosure reports, which the actuary prepares separately. GASB sets forth specific financial reporting requirements for LACERA and the County, which result in different computations and data—including discount rates — than the information provided in the OPEB valuation report. The GASB reporting guidelines are intended to improve OPEB program cost disclosures and do not require any funding arrangements.

The implementation of these complex GASB statements required a high degree of coordination and alignment between the plan administrator (LACERA) and the employers (i.e., County, LACERA, Superior Court, and Outside Districts). As such, in February 2016, LACERA established a GASB 74/75 Task Force (Task Force) composed of LACERA staff, key stakeholders from the employer groups, and external professional service providers to collectively discuss LACERA's and the employers' requirements for implementing their respective new GASB standards. This strategic partnership provided the opportunity to open the lines of communication among the parties involved and collectively worked towards establishing timelines and a framework for implementation decisions.

Prior to October 2017, the OPEB actuarial valuation was performed biennially and the related experience study was performed triennially. The associated independent review of the actuarial valuation, as well as the audit of the experience study were conducted every six years. With the advent of GASB 75, the Task Force revisited the timing of these reporting requirements.

GASB 75 requires the reporting date to be a maximum of 30 months and one day after the actuarial valuation date. The Task Force believed this requirement, coupled with the one-year lag period stipulated by the County's GASB 75 implementation schedule, imposes a tight timeline that leaves no room for unforeseen issues or adversity for all parties concerned. Increasing the OPEB valuation schedule from every other year (biennial) to every year (annual) effectively eliminated this critical risk and highly improved compliance with GASB 75 firm reporting requirements, including the ability to conduct audits of the OPEB information which will be included in the County's financial statements. Similarly, improved OPEB actuarial valuation frequency equated to enhanced timing of the associated OPEB reviews (i.e., from every six years to every three years). More frequent updates provide more recent information to decision-makers, plan sponsors, and program administrators.

Timing of OPEB Actuarial Projects

Milliman, the OPEB consulting actuary, performed the most recent OPEB valuation as of July 1, 2018, using the 2018 OPEB experience study of actuarial assumptions. The revised OPEB policy not only requires annual OPEB valuations but also requires the actuary to review the reasonableness of the economic and non-economic assumptions every three years. As a result of the current OPEB policy's increased valuation and review frequency and for consistency with the retirement benefits valuation and review requirements, the timing of these actuarial projects were adjusted to promote operational efficiency.

Specifically, the OPEB experience study, OPEB valuation review, and OPEB experience study review as of July 1, 2018 and as of July 1, 2020 are catch-up two-year cycles to efficiently use the OPEB experience study during the four-year gap between the current and prior OPEB Policies. The first three-year cycle for the OPEB experience study, OPEB valuation review, and OPEB experience study review will be performed as of July 1, 2023.

Latest Actuarial Review Results

The most recent actuarial reviews of the OPEB valuation and OPEB experience study were conducted based on the current OPEB Policy. The OPEB Program reviewing actuary, Cavanaugh Macdonald Consulting (CMC), performed reviews of Milliman's OPEB experience study and OPEB valuation prepared as of July 1, 2018.

In regard to the review of the OPEB experience study, CMC concluded, "We believe that the actuarial assumptions recommended by Milliman are reasonable and appropriate for use in the upcoming actuarial valuation for Los Angeles County's OPEB Program. We have no findings of material discrepancies with generally accepted actuarial principles or professional standards." CMC's review of Milliman's OPEB valuation determined, "Because of the complexity of actuarial work, we would not expect to match Milliman's valuation results exactly, nor would we necessarily expect our opinions regarding the results to be the same as those of Milliman. While we offer some different viewpoints or ideas, we believe that Milliman's work provides an appropriate assessment of the status of the OPEB Program for purposes of determining an appropriate funding strategy."

⁽¹⁾ LACERA implemented GASB 74 as of June 30, 2017.

⁽²⁾ The LACERA participating employers implemented GASB 75 as of June 30, 2018.

ACTUARIAL SECTION

Other Actuarial Information

Actuarial Methods and Assumptions: A description of the actuarial methods and assumptions for the OPEB valuation used by the OPEB consulting actuary are included in this Actuarial Section. The following additional information is included in this section:

- Actuary's Certification Letter – OPEB Program
- Summary of Actuarial Methods and Assumptions – OPEB Program
- Schedule of Funding Progress – OPEB Program
- Active Member Valuation Data – OPEB Program
- Retirants and Beneficiaries Added to and Removed from Rolls – OPEB Program
- Actuary Solvency Test – OPEB Program
- Actuarial Analysis of Financial Experience – OPEB Program

A Summary of Major OPEB Program Provisions is available upon request.

See Note N – OPEB Program for details on the plan description.



September 20, 2019

Board of Retirement
Los Angeles County Employees Retirement Association
300 North Lake Avenue, Suite 820
Pasadena, CA 91101-4199

Dear Members of the Board:

Los Angeles County provides Other Postemployment Benefits (OPEB): retiree medical, dental/vision, and death/burial insurance benefits to the retired Los Angeles County (County) workers who also participate in the Los Angeles County Employees Retirement Association (LACERA) retirement benefits program. These healthcare related benefits are called the Los Angeles County OPEB Program, or the "Program". The Program provides these benefits on a "pay-as-you-go" basis. Biennial actuarial valuations provided the required financial disclosures for the Program through July 1, 2016. Effective July 1, 2017, OPEB actuarial funding valuations are performed annually. The next valuation is expected as of July 1, 2019.

A summary of the results of the past three actuarial valuations is shown below. All dollar amounts are in billions.

Valuation Date	Actuarial Accrued Liability	Assets	Unfunded Actuarial Accrued Liability	ADC* as a Percentage of Payroll
July 1, 2016	\$25.91	\$0.56	\$25.35	27.03%
July 1, 2017	\$26.30	\$0.74	\$25.56	25.57%
July 1, 2018	\$21.07	\$0.94	\$20.13	20.56%

*Actuarially Determined Contribution (ADC) based on GASB 74/75 methodology and previously known as Annual Required Contribution (ARC) based on GASB 43/45 methodology.

The County's Board of Supervisors affirmed their support for pre-funding its OPEB liabilities by providing specific initial appropriations to the OPEB Trust Fund. Since the July 1, 2012 Valuation, details of a long-term funding policy have been finalized. The funding policy provides for steady increases in contributions each year with the ultimate goal of making contributions equal to the ADC. The July 1, 2014, July 1, 2016 and annual OPEB Valuations thereafter include assets invested in the OPEB Trust.

In preparing the July 1, 2018 OPEB valuation report, we relied, without audit, on information (some oral and some in writing) supplied by Los Angeles County, LACERA, and Segal (LACERA's healthcare consultant). This information includes, but is not limited to, benefit descriptions, membership data, and financial information. We found this information to be reasonably consistent and comparable with data used for other purposes. The valuation results depend on the integrity of this information. In some cases, where the data was incomplete, we made assumptions as noted in Table C-10 of our July 1, 2018 valuation report. If any of this information is inaccurate or incomplete, our results may be different and our calculations may need to be revised.



The valuation is also based on our understanding of the Program's current benefit provisions and the actuarial assumptions, which were reviewed and adopted by the Board of Retirement. The retirement benefit related demographic and economic assumptions were based on those developed for the June 30, 2018 valuation of the LACERA retirement benefit program, approved by LACERA's Board of Investments. Economic and relevant demographic assumptions from the retirement benefit investigation of experience, conducted by Milliman, are included in the July 1, 2018 OPEB valuation. Assumptions unique to OPEB were identified and evaluated in Milliman's 2018 OPEB investigation of experience study report as of July 1, 2018, approved by LACERA's Board of Retirement.

The OPEB Program changed from cost sharing to agent effective with the July 1, 2018 OPEB valuation. The OPEB demographic and trend assumptions are combined for all of LACERA's agents. The investment rate of return assumption differs by the agents that are prefunding into the OPEB Trust and the agents that are not prefunding into the OPEB Trust.

With the change from cost sharing to agent, a GASB 74 disclosure report for LACERA's financial statements is no longer required to report the OPEB Program liability in LACERA's financial statements. The employer specific information will be provided in the GASB 75 disclosure reports for employer financial reporting. The assumptions and methods used for financial reporting under GASB 75 are the same as the funding assumptions and methods used in the July 1, 2018 OPEB valuation report, with the following exceptions:

1. The GASB 75 discount rate is determined using depletion date methodology, and it changes on each measurement date.
2. The GASB 75 liabilities have LACERA operational administrative expenses removed.

The actuarial computations presented in the July 1, 2018 OPEB valuation and the forthcoming June 30, 2020 GASB 75 disclosure reports are for purposes of fulfilling financial accounting requirements for LACERA's employers. The liabilities in the July 1, 2018 OPEB valuation and the GASB 75 disclosure reports are determined by using the entry age normal actuarial cost method. The assets are recognized at market value. We consider the actuarial assumptions and methods to be internally consistent, to represent a long-term perspective, and to be reasonable. We believe they also meet the parameters of Governmental Accounting Standards Board Statement No. 75 for fulfilling financial accounting requirements. Nevertheless, the emerging costs will vary from those presented in our report to the extent that actual experience differs from that projected by the actuarial assumptions.

Future actuarial measurements may differ significantly from the current measurements presented in the OPEB funding valuation report and the GASB 75 disclosure report due to such factors as the following: OPEB program experience differing from that anticipated by the economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and changes in OPEB program provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements.



Milliman's work is prepared exclusively for LACERA for a specific and limited purpose. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. It is a complex, technical analysis that assumes a high level of knowledge concerning LACERA's operations, and uses LACERA's data, which Milliman has not audited.

No third party recipient of Milliman's work product who desires professional guidance should rely upon Milliman's work product, but should engage qualified professionals for advice appropriate to its own specific needs.

The consultants who worked on this assignment are employee benefit actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel. The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

Milliman prepared the following information for the actuarial section:

1. Retirees and Beneficiaries Added to and Removed from Benefits - OPEB Program
2. Actuarial Analysis of Financial Experience - OPEB Program
3. Actuary Solvency Test - OPEB Program
4. Schedule of Funding Progress - OPEB Program

LACERA staff prepared the information in Note N-OPEB Program, of the financial section and the Required Supplementary Information, based on information supplied in prior actuarial reports, our July 1, 2018 actuarial valuation, and our forthcoming June 30, 2020 GASB 75 report. Milliman has reviewed the information in Note N for accuracy.

We certify that the assumptions and methods used for funding and financial reporting purposes in the July 1, 2018 funding valuation meet the parameters set by Actuarial Standards of Practice promulgated by the Actuarial Standards Board (ASB). We are members of the American Academy of Actuaries and have experience in performing valuations for public OPEB programs.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Robert L. Schmidt'.

Robert L. Schmidt, FSA, EA, MAAA
Principal and Consulting Actuary

A handwritten signature in dark ink, appearing to read 'Janet O. Jennings'.

Janet O. Jennings, ASA, MAAA
Associate Actuary

RLS/bh

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Summary of Actuarial Methods and Assumptions — OPEB Program	
Actuarial Methods and Assumptions	The OPEB actuarial methods and assumptions are recommended by the consulting actuary and adopted by the Board of Retirement. The actuarial assumptions used to determine the liabilities are based on the results of the 2016 Pension Plan and 2018 OPEB Program separate triennial Investigation of Experience Studies. Where applicable, the same assumptions are used for the OPEB Program as for the Pension Plan. The assumptions that overlap with the Pension Plan assumptions were reviewed and changed June 30, 2016, as a result of the 2016 Pension Plan triennial Investigation of Experience Study, approved by the Board of Investments in December 2016. The general wage increase and inflation assumptions were evaluated for the Pension Plan and applied to the OPEB Program. The consulting actuary recommended an OPEB specific investment earnings assumption since investment earnings for the OPEB valuation are based on the expected return from the County's general assets or the expected return from the OPEB Trust. These assets are invested based on the OPEB Trust investment policy statement adopted by the Board of Investments which applies different asset allocations than the one used for the Pension Plan. The OPEB specific assumptions including election, tier selection, and medical cost trends were reviewed and updated as a result of the 2018 OPEB Investigation of Experience Study the LACERA Board of Retirement adopted in March 2019. These updated assumptions were applied to the OPEB valuation conducted as of July 1, 2018, which was adopted in August 2019 by the Board of Retirement. See the schedule titled Active Member Valuation Data - OPEB Program for active member valuation purposes.
Actuarial Cost Method	Effective with the July 1, 2018 OPEB funding valuation, the Entry Age Normal (EAN) actuarial cost method was applied. Under the principles of this method, the actuarial present value of the projected benefits of each member included in the valuation is allocated as a level percentage of the member's projected compensation between entry age and assumed exit (until maximum retirement age). For members who transferred between plans, entry age is based on original entry into the system. The portion of this actuarial present value allocated to a valuation year is called the Normal Cost (NC). The portion of this actuarial present value not provided for at a valuation date by the sum of (a) the actuarial value of the assets, and (b) the actuarial present value of future Normal Costs is called the Unfunded Actuarial Accrued Liability (UAAL). The UAAL is amortized as a level percentage of the projected salaries of the active members, both present and future, covered by the LACERA retirement benefits plan over a 30-year period from the valuation date.
Actuarial Asset Valuation Method	Market Value.

Summary of Actuarial Methods and Assumptions — OPEB Program				
Investment Return	The investment earnings assumption for agents that are pre-funding through the OPEB Trust is the OPEB Trust expected return of 6.00%. The investment earnings assumption for agents that are not pre-funding through the OPEB Trust is the County's general funds expected return of 3.69%. The change from cost sharing to agent begins with the July 1, 2018 OPEB funding valuation. The investment earnings assumption approach for this funding valuation is intended to reflect the earnings associated with each agent. The separate GASB 75 disclosure report, which provides information for employers and is different from this funding valuation, follows a prescribed discount rate for accounting disclosures.			
Inflation Rate	2.75 percent per annum. This rate was adopted beginning with the July 1, 2016 OPEB Valuation.			
Amortization Method	Level percentage of projected salaries of the active members, both present and future, over a 30-year period. This is commonly referred to as a "rolling 30-year amortization method" and does not cover interest on the UAAL. This assumption was adopted beginning with the July 1, 2006 OPEB valuation.			
Healthcare Cost Trend Rates		FY 2019 to FY 2020	FY 2020 to FY 2021	Ultimate (Grading from June 30, 2019 to June 30, 2104)
	LACERA Medical Under 65	3.30%	6.40%	4.40%
	LACERA Medical Over 65	2.90%	6.30%	4.50%
	Part B Premiums	9.40%	4.70%	4.30%
	Dental/Vision	0.00%	4.50%	3.70%
	Weighted Average Trend	3.53%	6.02%	4.46%
Claim Costs	Claim cost data is reviewed for the membership in aggregate including members of all employers, whether they participate in the OPEB Trust or not. The claim cost assumptions were updated as part of the July 1, 2018 valuation and differ by Tier 1 and Tier 2. Retiree Healthcare Benefits Program —Tier 1 is for members who were hired before July 1, 2014. Members who were hired after June 30, 2014 are in Retiree Healthcare Benefits Program —Tier 2. The tiers have different maximum employer contributions which impacts plan election patterns, resulting in different claim costs. Refer to Table A-21 of the July 1, 2018 OPEB valuation for more details.			

Summary of Actuarial Methods and Assumptions — OPEB Program	
Retirement	Members in General Plans A–D may retire at age 50 with 10 years of service, or any age with 30 years of service, or age 70 regardless of the number of years of service. General Plan G members are eligible to retire at age 52 with five years of service, or age 70 regardless of the number of years of service. Non-contributory Plan E members may retire at age 55 with 10 years of service. Members of Safety Plans A and B may retire at age 50 with 10 years of service, or any age with 20 years of service. Safety Plan C members are eligible to retire at age 50 with five years of County service.
Expectation of Life After Retirement ^{1, 2}	The same postretirement mortality rates are used in the valuation for active members after termination, members retired for service, and beneficiaries. Future beneficiaries are assumed to have the same mortality as a general member of the opposite gender. The mortality tables used are listed below while age based rates are illustrated in the July 1, 2018 OPEB valuation report. These rates were adopted June 30, 2016. Males: General Members: RP–2014 Healthy Annuitant Mortality Table for Males multiplied by 105 percent, with MP–2014 Ultimate Projection Scale. Safety Members: RP–2014 Healthy Annuitant Mortality Table for Males multiplied by 95 percent, with MP–2014 Ultimate Projection Scale. Females: General Members: RP–2014 Healthy Annuitant Mortality Table for Females, with MP–2014 Ultimate Projection Scale. Safety Members: RP–2014 Healthy Annuitant Mortality Table for Females, with MP–2014 Ultimate Projection Scale.

Summary of Actuarial Methods and Assumptions — OPEB Program	
Expectation of Life After Disability ^{1, 2}	For disabled members, the mortality tables used are listed below while age based rates are illustrated in the July 1, 2018 OPEB valuation report. These rates were adopted June 30, 2016. Males: General Members: Average of RP–2014 Healthy Annuitant Mortality Table for Males multiplied by 105 percent and RP–2014 Disabled Annuitant Mortality Table for Males, both projected with MP–2014 Ultimate Projection Scale. Safety Members: RP–2014 Healthy Annuitant Mortality Table for Males, with MP–2014 Ultimate Projection Scale. Females: General Members: Average of RP–2014 Healthy Annuitant Mortality Table for Females and RP–2014 Disabled Annuitant Mortality Table for Females, both projected with MP–2014 Ultimate Projection Scale. Safety Members: RP–2014 Healthy Annuitant Mortality Table for Females, with MP–2014 Ultimate Projection Scale.
Retiree Medical and Dental/Vision Eligibility and Enrollment Assumptions	Any retired or vested terminated members who have not elected a refund of their member pension contributions and will receive a pension benefit other than a refund are eligible for retiree medical and dental/vision enrollment. Refer to Tables A-14 through A-19 of the July 1, 2018 OPEB Valuation for more details regarding the enrollment assumptions.
Other Employment Terminations	Terminating employees may withdraw their contributions immediately upon termination of employment and forfeit the right to further retirement, medical, dental/vision and death benefits, or they may leave their contributions on deposit with LACERA. Former contributing members whose contributions are on deposit may later elect to receive a refund, may return to work, or may remain inactive until becoming eligible to receive a retirement benefit under either LACERA or a reciprocal retirement plan. All terminating members who are not eligible for vested benefits are assumed to withdraw their contributions immediately. All terminating members are assumed not to be rehired. The Probability of Occurrence schedule included in this Actuarial Section provides a summary of probability of retirement and withdrawal for sample ages. Although these assumptions were developed for the Pension Plan, they apply to the OPEB Program participant population.

⁽¹⁾ The RP-2014 mortality tables were published by the Society of Actuaries (SOA's) Retirement Plans Experience Committee (RPEC) in October 2014. The data studied includes more than 10 million life-years of exposure over the period 2004 to 2008, and includes separate mortality tables for healthy annuitants, disabled retirees, and employees. These mortality tables reflect adjustments, using mortality improvement scale MP-2014 (discussed further below), to account for changes in mortality between the period of experience and 2014.

⁽²⁾ The SOA's Mortality Improvement Scale MP-2014 (published in October 2014) is used to adjust the RP-2014 mortality tables to account for anticipated changes in mortality rates in future years. In general, it is assumed that mortality rates will improve (implying longer lifetimes) in future due partially to improvements in healthcare.

Schedule of Funding Progress — OPEB Program

(Dollars in Thousands)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded Actuarial Accrued Liability (UAAL) (b-a)	Funded Ratio (a/b)	Covered Employee Payroll (c)	UAAL as a Percentage of Covered Employee Payroll [(b-a)/c]
July 1, 2010	\$—	\$24,031,000	\$24,031,000	0.0%	N/A	N/A
July 1, 2012	—	26,952,700	26,952,700	0.0%	N/A	N/A
July 1, 2014	483,800	28,546,600	28,062,800	1.7%	N/A	N/A
July 1, 2016	560,800	25,912,600	25,351,800	2.2%	N/A	N/A
July 1, 2017 ¹	742,900	26,300,800	25,557,900	2.8%	8,544,140	299.1%
July 1, 2018 ²	\$941,010	\$21,066,800	\$20,125,790	4.5%	\$8,954,417	224.8%

⁽¹⁾ The resulting July 1, 2017 OPEB valuation report was the first annual (versus biennial) valuation prepared in accordance with the revised OPEB Actuarial Valuation and Audit Policy Statement, which the LACERA Board of Investments approved in October 2017, to meet the plan sponsors' GASB Statement No. 75 reporting requirements.

⁽²⁾ Effective with the July 1, 2018 OPEB valuation, the actuarial cost method used to project the AAL changed from projected unit credit to entry age normal.

Active Member Valuation Data — OPEB Program

Valuation Date	Plan Type	Member Count ²	Annual Salary	Average Annual Salary	Percentage Increase/ (Decrease) in Average Salary
July 1, 2010	General	81,352	\$5,313,595,764	\$65,316	6.34%
	Safety	12,991	1,256,733,372	96,739	4.50%
	Total	94,343	\$6,570,329,136	\$69,643	6.08%
July 1, 2012	General	79,416	\$5,267,863,044	\$66,333	1.56%
	Safety	12,482	1,229,551,596	98,506	1.83%
	Total	91,898	\$6,497,414,640	\$70,702	1.52%
July 1, 2014	General	79,878	\$5,482,792,752	\$68,640	3.48%
	Safety	12,515	1,251,582,744	100,007	1.52%
	Total	92,393	\$6,734,375,496	\$72,888	3.09%
July 1, 2016	General	82,780	\$5,938,289,628	\$71,736	4.51%
	Safety	12,515	1,340,879,628	107,142	7.13%
	Total	95,295	\$7,279,169,256	\$76,386	4.80%
July 1, 2017 ¹	General	84,454	\$6,284,503,344	\$74,413	3.73%
	Safety	12,695	1,387,680,972	109,309	2.02%
	Total	97,149	\$7,672,184,316	\$78,973	3.39%
July 1, 2018	General	85,645	\$6,604,776,960	\$77,118	3.64%
	Safety	12,770	1,451,326,572	113,651	3.97%
	Total	98,415	\$8,056,103,532	\$81,858	3.65%

⁽¹⁾ The resulting OPEB valuation report was the first annual (versus biennial) valuation prepared in accordance with the revised OPEB Actuarial Valuation and Audit Policy Statement, which the LACERA Board of Investments approved in October 2017, to meet the plan sponsors' GASB Statement No. 75 reporting requirements.

⁽²⁾ Includes both Medicare and non-Medicare eligible individuals.

Retirants and Beneficiaries Added to and Removed From Rolls — OPEB Program

(Dollars in Thousands)

		Added to Rolls			Removed from Rolls		Rolls at End of Year	
Valuation Date	Member Count	Annual Allowance ¹	Member Count	Annual Allowance	Member Count	Annual Allowance	Percentage Increase in Retiree Allowance	Average Annual Allowance
July 1, 2010	—	\$—	—	\$—	\$43,936	\$391,979	—%	\$8,922
July 1, 2012	5,336	56,982	(3,070)	(25,497)	46,202	423,464	8.03%	9,165
July 1, 2014	5,335	89,205	(3,369)	(29,925)	48,168	482,744	14.00%	10,022
July 1, 2016	5,710	103,373	(3,514)	(30,745)	50,364	555,372	15.04%	11,027
July 1, 2017 ²	3,229	41,266	(1,839)	(18,052)	51,754	578,586	4.18%	11,180
July 1, 2018	3,028	\$61,697	(1,977)	(\$20,530)	52,805	\$619,753	7.12%	\$11,737

⁽¹⁾ Includes changes for continuing retirees and beneficiaries.

⁽²⁾ The resulting OPEB valuation report was the first annual valuation prepared in accordance with the revised OPEB Actuarial Valuation and Audit Policy Statement, which the LACERA Board of Investments approved in October 2017, to meet the plan sponsors' GASB Statement No. 75 reporting requirements.

ACTUARIAL SECTION

Actuary Solvency Test — OPEB Program ¹

(Dollars in Millions)

Actuarial Accrued Liability (AAL) for					Portion of AAL Covered by Assets		
Actuarial Valuation Date	(A) Active Member Contributions	(B) Retirees and Beneficiaries ²	(C) Active Members (Employer Financed Portion)	Actuarial Value of Valuation Assets	(A) Active	(B) Retired	(C) Employer
July 1, 2012	\$—	\$10,681	\$16,272	\$—	N/A	0%	0%
July 1, 2014	—	11,791	16,756	484	N/A	4%	0%
July 1, 2016	—	11,365	14,548	561	N/A	5%	0%
July 1, 2017 ³	—	11,640	14,661	743	N/A	6%	0%
July 1, 2018	\$—	\$10,108	\$10,959	\$941	N/A	9%	0%

⁽¹⁾ Trend information: Schedule will ultimately show information for 10 years. Additional years will be displayed as they become available prospectively.

⁽²⁾ Includes vested former members.

⁽³⁾ The resulting OPEB valuation report was the first annual valuation prepared in accordance with the revised OPEB Actuarial Valuation and Audit Policy Statement, which the LACERA Board of Investments approved in October 2017, to meet the plan sponsors' GASB Statement No. 75 reporting requirements.

Actuarial Analysis of Financial Experience — OPEB Program

(Dollars in Millions)

	Valuation as of July 1						
	2018	2017 ⁴	2016	2014	2012	2010	2008
Prior Unfunded Actuarial Accrued Liability	\$25,558	\$25,352	\$28,063	\$26,953	\$24,031	\$21,864	\$21,216
Expected Increase/(decrease) from Prior Valuation	1,170	1,462	3,240	3,873	3,771	3,478	3,341
Claim Costs Greater/(Less) than Expected ¹	(1,067)	(1,213)	(2,322)	(5,471)	(3,864)	(1,267)	(3,131)
Change in Assumptions ²	(6,936)	0	(3,385)	3,238	3,423	287	536
Asset Return Less/(Greater) than Expected	(28)	(54)	78	(484)	N/A	N/A	N/A
All Other Experience ³	1,429	11	(322)	(46)	(408)	(331)	(98)
Ending Unfunded Actuarial Accrued Liability	\$20,126	\$25,558	\$25,352	\$28,063	\$26,953	\$24,031	\$20,126

⁽¹⁾ Includes the trend assumption change.

⁽²⁾ In 2016, this amount includes the impact from implementing the Tier 2 retiree health care benefits plan.

⁽³⁾ In 2018, this amount is primarily due to the impact of the Excise Tax.

⁽⁴⁾ The resulting OPEB valuation report was the first annual valuation prepared in accordance with the revised OPEB Actuarial Valuation and Audit Policy Statement, which the LACERA Board of Investments approved in October 2017, to meet the plan sponsors' GASB Statement No. 75 reporting requirements.

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STATISTICAL SECTION

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Statistical Information Overview

The objective of the Statistical Section is to provide historical perspective, context, and detail to assist in utilizing the Basic Financial Statements, Notes to the Basic Financial Statements, and Required Supplementary Information to understand and assess the status of the Pension Plan and OPEB Program administered by LACERA as of the fiscal year-end. Statistical data is maintained within the Member Workspace (Workspace). Workspace is a sophisticated in-house data management system in which LACERA actively maintains member-specific information, comprehensive plan membership records, and related member-specific documents. This section reports the most current membership status information for each type of member (general, safety, active, retired, etc.).

The statistical information provided here is divided into Financial Trends Information and Operating Information.

Financial Trends Information is intended to assist readers in understanding how LACERA's financial position has changed over time:

- *Changes in Fiduciary Net Position – Pension Plan and Changes in Fiduciary Net Position — OPEB Trust* present additions by source, deductions by type, and the total change in Fiduciary Net Position for each year.
- *Pension Benefit Expenses by Type* presents retirement benefits, lump-sum death benefits, and refund deductions by type of benefit (e.g., Service and Disability Retirement from General and Safety Plans).

Operating Information provides contextual information about LACERA's operations and membership to assist readers in using financial statement information to comprehend and evaluate LACERA's fiscal condition:

- *Active Members* provides membership statistics for active vested and non-vested members as well as for deferred vested members.
- *Retired Members by Type of Pension Benefit and Retired Members by Type of OPEB Benefit* present benefit information for the current year by benefit type and dollar level.
- *Schedule of Average Pension Benefit Payments* presents the average monthly benefit, average final salary, and number of retired members, organized in five-year increments of credited service.
- *Active Members and Participating Pension Employers* presents the employers and their corresponding covered employees.
- *Retired Members of Participating OPEB Employers* presents the number of covered members by medical or dental/vision benefits.
- *Employer Contribution Rates* are provided as additional information.
- *Supplemental Targeted Adjustment for Retirees (STAR) Program Costs* trends the Program's costs through the current calendar year-end.

Changes in Fiduciary Net Position — Pension Plan*Last 10 Years*

(Dollars in Thousands)

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Additions										
Employer Contributions	\$1,668,151	\$1,524,823	\$1,331,359	\$1,403,712	\$1,494,975	\$1,320,442	\$723,195	\$1,078,929	\$944,174	\$843,704
Member Contributions	635,415	591,262	526,579	498,083	441,258	439,001	679,572	506,758	463,743	429,612
Net Investment Income/(Loss)	3,175,723	4,716,640	6,129,300	80,588	1,989,358	6,908,412	4,659,015	(291,009)	6,930,358	3,840,401
Miscellaneous	5,958	5,613	6,370	2,781	1,695	2,256	385	1,004	591	868
Total Additions/ (Declines)	\$5,485,247	\$6,838,338	\$7,993,608	\$1,985,164	\$3,927,286	\$8,670,111	\$6,062,167	\$1,295,682	\$8,338,866	\$5,114,585
Deductions										
Total Benefit Expenses ¹	\$3,407,154	\$3,203,375	\$3,029,633	\$2,889,186	\$2,768,410	\$2,662,401	\$2,541,351	\$2,390,598	\$2,269,791	\$2,130,738
Administrative Expenses	82,906	78,181	66,830	67,645	62,591	58,723	53,863	50,218	50,605	48,892
Miscellaneous	333	451	188	(11)	212	229	190	121	347	48
Total Deductions	\$3,490,393	\$3,282,007	\$3,096,651	\$2,956,820	\$2,831,213	\$2,721,353	\$2,595,404	\$2,440,937	\$2,320,743	\$2,179,678
Net Increase/(Decrease) in Fiduciary Net Position	\$1,994,854	\$3,556,331	\$4,896,957	(\$971,656)	\$1,096,073	\$5,948,758	\$3,466,763	(\$1,145,255)	\$6,018,123	\$2,934,907

⁽¹⁾ See Pension Benefit Expenses by Type in this Statistical Section.

Changes in Fiduciary Net Position — OPEB Trust*Last Seven Years*¹

(Dollars in Thousands)

	2019	2018	2017	2016	2015	2014	2013
Additions							
Employer Contributions ²	\$863,028	\$706,709	\$645,381	\$615,275	\$—	\$—	\$448,819
Net Investment Income/(Loss)	62,116	78,746	94,505	(8,095)	4,688	35,113	209
Miscellaneous	—	—	2	—	—	—	—
Total Additions	\$925,144	\$785,455	\$739,888	\$607,180	\$4,688	\$35,113	\$449,028
Deductions							
Administrative Expenses	\$234	\$190	\$374	\$192	\$153	\$144	\$173
Benefit Payments ²	627,415	583,406	557,381	534,597	—	—	—
Redemptions	25	3,735	—	—	—	—	—
Total Deductions	\$627,674	\$587,331	\$557,755	\$534,789	\$153	\$144	\$173
Net Increase in Fiduciary Net Position	\$297,470	\$198,124	\$182,133	\$72,391	\$4,535	\$34,969	\$448,855

⁽¹⁾ Trend Information: Schedule will ultimately show information for 10 years. Additional years will be displayed as they become available prospectively.

⁽²⁾ Beginning in 2016, the Trust is now reflecting both pre-funding contributions actually made to the OPEB Trust as well as additions to Fiduciary Net Position including amounts for OPEB as the benefits come due that will not be reimbursed to the employers using OPEB plan assets. Correspondingly, deductions to Fiduciary Net Position, starting in 2016, now reflect all benefit payments whether made through the Trust or by employers as OPEB comes due (per paragraph 28a and 31 of GASB Statement No. 74).

Pension Benefit Expenses by Type*For the Fiscal Years Ended June 30*

(Dollars in Thousands)

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Service Retiree Payroll										
General	\$2,060,365	\$1,946,614	\$1,845,791	\$1,762,274	\$1,692,558	\$1,631,285	\$1,556,814	\$1,465,218	\$1,383,478	\$1,295,574
Safety	507,909	478,802	445,473	419,092	397,962	384,248	367,471	340,177	315,745	291,796
Total	\$2,568,274	\$2,425,416	\$2,291,264	\$2,181,366	\$2,090,520	\$2,015,533	\$1,924,285	\$1,805,395	\$1,699,223	\$1,587,370
Disability Retiree Payroll										
General	\$186,120	\$177,879	\$173,550	\$169,821	\$165,543	\$162,338	\$157,406	\$152,698	\$150,585	\$144,861
Safety	621,358	574,431	538,116	507,824	484,907	459,311	432,405	413,300	395,197	377,429
Total	\$807,478	\$752,310	\$711,666	\$677,645	\$650,450	\$621,649	\$589,811	\$565,998	\$545,782	\$522,290
Total Retiree Payroll										
General	\$2,246,485	\$2,124,493	\$2,019,341	\$1,932,095	\$1,858,101	\$1,793,623	\$1,714,220	\$1,617,916	\$1,534,063	\$1,440,435
Safety	1,129,267	1,053,233	983,589	926,916	882,869	843,559	799,876	753,477	710,942	669,225
Total	\$3,375,752	\$3,177,726	\$3,002,930	\$2,859,011	\$2,740,970	\$2,637,182	\$2,514,096	\$2,371,393	\$2,245,005	\$2,109,660
Refunds										
General	\$27,096	\$20,782	\$21,970	\$23,470	\$22,050	\$18,994	\$19,406	\$14,523	\$17,498	\$13,041
Safety	1,595	2,439	2,482	3,622	3,361	4,534	5,606	3,098	5,220	5,863
Total	\$28,691	\$23,221	\$24,452	\$27,092	\$25,411	\$23,528	\$25,012	\$17,621	\$22,718	\$18,904
Lump-Sum Death Benefits										
	\$2,711	\$2,428	\$2,251	\$3,083	\$2,029	\$1,691	\$2,243	\$1,584	\$2,068	\$2,174
Total Benefit Expenses	\$3,407,154	\$3,203,375	\$3,029,633	\$2,889,186	\$2,768,410	\$2,662,401	\$2,541,351	\$2,390,598	\$2,269,791	\$2,130,738

STATISTICAL SECTION

Active Members

For the Fiscal Years Ended June 30

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Active Vested										
General	62,589	61,734	61,608	61,820	62,532	63,301	62,803	61,433	59,055	56,162
Safety	10,071	10,286	10,429	10,743	11,024	11,188	11,177	10,663	10,054	9,916
Subtotal	72,660	72,020	72,037	72,563	73,556	74,489	73,980	72,096	69,109	66,078
Active Non-Vested										
General	23,811	23,975	22,915	21,096	18,696	16,642	16,203	18,034	21,090	25,251
Safety	2,725	2,489	2,269	1,785	1,422	1,335	1,362	1,822	2,587	3,081
Subtotal	26,536	26,464	25,184	22,881	20,118	17,977	17,565	19,856	23,677	28,332
Deferred Vested										
General	8,008	7,856	7,752	7,665	7,623	7,550	7,462	7,379	7,423	7,478
Safety	610	603	589	573	563	540	497	480	465	460
Subtotal	8,618	8,459	8,341	8,238	8,186	8,090	7,959	7,859	7,888	7,938
Total Active Members										
General	94,408	93,565	92,275	90,581	88,851	87,493	86,468	86,846	87,568	88,891
Safety	13,406	13,378	13,287	13,101	13,009	13,063	13,036	12,965	13,106	13,457
Total	107,814	106,943	105,562	103,682	101,860	100,556	99,504	99,811	100,674	102,348

Retired Members by Type of Pension Benefit

As of June 30, 2019

Amount of Monthly Benefit				Number of Retired Members	Type of Retirement ¹			Retirement Option Selected ²				
					A	B	C	Unmodified	Unmodified +Plus	Option 1	Option 2	Option 3
\$1 - \$1,000	14,009	8,876	1,175	3,958	12,362	739	114	456	99	239		
\$1,001 - \$2,000	14,210	9,680	1,938	2,592	12,442	998	132	327	102	209		
\$2,001 - \$3,000	10,920	8,055	1,764	1,101	9,537	879	98	158	63	185		
\$3,001 - \$4,000	7,594	5,833	1,161	600	6,595	671	51	92	34	151		
\$4,001 - \$5,000	5,393	4,321	748	324	4,589	557	43	52	30	122		
\$5,001 - \$6,000	3,853	3,074	567	212	3,264	439	25	28	11	86		
\$6,001 - \$7,000	2,751	2,151	485	115	2,223	402	12	23	4	87		
> \$7,000	7,772	5,528	2,053	191	5,752	1,626	28	22	27	317		
	66,502	47,518	9,891	9,093	56,764	6,311	503	1,158	370	1,396		

⁽¹⁾ Type of Retirement:

- A. Service Retiree
- B. Disability Retiree
- C. Beneficiary/Continuant/Survivor

⁽²⁾ Retirement Option Selected:

Unmodified — For Plans A-D and G, beneficiary receives 65 percent of the member's allowance (60 percent if the member retired before June 4, 2002); for Plan E, beneficiary receives 55 percent of member's allowance (50 percent if the member retired before June 4, 2002).

The following options reduce the member's monthly benefit:

Unmodified+Plus — For all Plans (A-G), member's allowance is reduced to pay an increased continuing allowance to an eligible surviving spouse/partner.

Option 1 - Beneficiary receives lump sum of member's unused contributions.

Option 2 - Beneficiary receives 100 percent of member's reduced monthly benefit.

Option 3 - Beneficiary receives 50 percent of member's reduced monthly benefit.

Option 4 - Beneficiary(ies) receives percentage of member's reduced monthly benefit as designated by member.

Retired Members by Type of OPEB Benefit

As of June 30, 2019

	Medical Benefit Premium Amounts					Total Member Count
	\$1- \$500	\$501- \$1000	\$1,001- \$1500	\$1,501- \$2000	> \$2,000	
Medical Plans by Plan Type						
Anthem Blue Cross I	3	—	762	22	323	1,110
Anthem Blue Cross II	2	—	2,184	174	2,638	4,998
Anthem Blue Cross III	6,729	4,034	81	1,175	—	12,019
Anthem Blue Cross Prudent Buyer Plan	1	0	654	316	81	1,052
Cigna-HealthSpring Preferred Rx	30	15	1	9	2	57
Cigna Network Model Plan	—	—	—	300	157	457
Kaiser - California	—	—	3,364	43	2,808	6,215
Kaiser - Senior Advantage	10,752	5,489	1,913	—	—	18,154
Kaiser - Colorado	33	12	2	—	4	51
Kaiser - Georgia	62	29	22	11	4	128
Kaiser - Hawaii	31	21	4	5	—	61
Kaiser - Oregon-Washington	76	43	9	9	2	139
Firefighters Local 1014	—	—	494	—	1,452	1,946
SCAN Health Plan	307	103	—	—	—	410
UnitedHealthcare	1	—	463	—	751	1,215
UnitedHealthcare Medicare Advantage (HMO)	1,719	1,040	—	445	—	3,204
Total Medical by Plan Type	19,746	10,786	9,953	2,509	8,222	51,216
Medical Plans by Retirement Type						
Service Retirees	14,472	9,315	6,929	1,823	5,368	37,907
Disability Retirees	1,528	1,395	1,394	507	2,696	7,520
Survivors	3,746	76	1,630	179	158	5,789
Total Medical by Retirement Type	19,746	10,786	9,953	2,509	8,222	51,216

	Dental/Vision Benefit Premium Amounts \$1 - \$500
Dental/Vision Plans by Plan Type	
CIGNA Indemnity Dental/Vision	46,847
CIGNA HMO Dental/Vision	5,652
Total Dental/Vision by Plan Type	52,499
Dental/Vision Plans by Retirement Type	
Service Retirees	38,633
Disability Retirees	7,888
Survivors	5,978
Total Dental/Vision by Retirement Type	52,499

STATISTICAL SECTION

Schedule of Average Pension Benefit Payments

Last Ten Fiscal Years

Retirement Effective Dates	Years of Credited Service					
	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+
7/1/09 to 6/30/10						
Retirants						
General Members						
Average Monthly Benefit	\$1,242	\$1,204	\$1,782	\$2,559	\$3,418	\$5,319
Average Final Salary	\$4,984	\$4,790	\$5,072	\$5,888	\$6,525	\$6,923
Number of Active Retirants	116	242	251	210	258	888
Safety Members						
Average Monthly Benefit	\$4,656	\$3,461	\$3,008	\$4,840	\$7,055	\$10,450
Average Final Salary	\$8,092	\$7,848	\$8,377	\$8,519	\$10,104	\$12,206
Number of Active Retirants	14	22	10	11	85	157
Survivors						
General Members						
Average Monthly Benefit	\$737	\$825	\$1,077	\$1,201	\$1,336	\$2,528
Average Final Salary	\$4,738	\$4,069	\$4,592	\$3,875	\$3,732	\$4,926
Number of Active Survivors	19	31	33	40	59	89
Safety Members						
Average Monthly Benefit	\$5,467	\$1,895	\$3,210	\$3,413	\$3,884	\$5,653
Average Final Salary	\$8,746	\$7,268	\$8,850	\$7,809	\$7,374	\$7,554
Number of Active Survivors	1	3	6	7	11	10
7/1/10 to 6/30/11						
Retirants						
General Members						
Average Monthly Benefit	\$1,721	\$1,249	\$1,810	\$2,784	\$3,418	\$5,082
Average Final Salary	\$5,702	\$5,064	\$5,296	\$6,286	\$6,576	\$6,820
Number of Active Retirants	127	238	269	284	258	922
Safety Members						
Average Monthly Benefit	\$2,336	\$4,135	\$5,198	\$5,308	\$7,347	\$9,667
Average Final Salary	\$6,862	\$9,057	\$9,158	\$9,679	\$10,365	\$11,617
Number of Active Retirants	10	28	21	30	91	152
Survivors						
General Members						
Average Monthly Benefit	\$629	\$786	\$871	\$1,654	\$1,325	\$2,485
Average Final Salary	\$3,677	\$3,698	\$3,359	\$5,351	\$3,678	\$5,238
Number of Active Survivors	24	36	43	44	60	93
Safety Members						
Average Monthly Benefit	\$3,187	\$1,715	\$2,386	\$3,499	\$3,788	\$5,461
Average Final Salary	\$6,572	\$5,766	\$5,589	\$6,862	\$6,768	\$6,929
Number of Active Survivors	3	2	8	4	10	25

STATISTICAL SECTION

Schedule of Average Pension Benefit Payments

Last Ten Fiscal Years

Retirement Effective Dates	Years of Credited Service					
	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+
7/1/11 to 6/30/12						
Retirants						
General Members						
Average Monthly Benefit	\$1,793	\$1,362	\$2,082	\$2,567	\$3,525	\$4,956
Average Final Salary	\$5,624	\$5,141	\$5,683	\$5,686	\$6,711	\$6,830
Number of Active Retirants	141	291	234	278	297	918
Safety Members						
Average Monthly Benefit	\$2,203	\$4,924	\$6,474	\$4,417	\$7,372	\$9,750
Average Final Salary	\$6,307	\$8,948	\$9,929	\$9,108	\$10,380	\$11,587
Number of Active Retirants	8	29	13	33	103	183
Survivors						
General Members						
Average Monthly Benefit	\$1,055	\$691	\$965	\$1,770	\$1,643	\$2,736
Average Final Salary	\$4,661	\$3,821	\$3,766	\$5,244	\$4,301	\$5,662
Number of Active Survivors	21	46	26	43	57	94
Safety Members						
Average Monthly Benefit	\$2,786	\$2,352	\$2,789	\$3,271	\$3,221	\$5,580
Average Final Salary	\$5,771	\$6,466	\$7,785	\$7,019	\$6,127	\$7,824
Number of Active Survivors	5	5	5	7	8	23
7/1/12 to 6/30/13						
Retirants						
General Members						
Average Monthly Benefit	\$1,825	\$1,562	\$2,116	\$2,663	\$3,570	\$5,043
Average Final Salary	\$6,046	\$5,405	\$6,042	\$6,009	\$6,758	\$6,888
Number of Active Retirants	112	324	233	271	338	897
Safety Members						
Average Monthly Benefit	\$2,233	\$5,909	\$6,416	\$5,507	\$7,360	\$10,046
Average Final Salary	\$7,299	\$9,266	\$9,611	\$9,843	\$10,481	\$11,921
Number of Active Retirants	12	29	20	33	118	191
Survivors						
General Members						
Average Monthly Benefit	\$861	\$804	\$1,097	\$1,403	\$1,889	\$2,496
Average Final Salary	\$4,743	\$4,020	\$3,961	\$4,451	\$4,930	\$5,611
Number of Active Survivors	22	54	39	70	60	103
Safety Members						
Average Monthly Benefit	\$989	\$1,523	\$2,523	\$3,378	\$4,137	\$5,460
Average Final Salary	\$4,454	\$4,896	\$5,990	\$8,242	\$7,055	\$7,468
Number of Active Survivors	6	7	10	5	20	31

STATISTICAL SECTION

Schedule of Average Pension Benefit Payments

Last Ten Fiscal Years

Retirement Effective Dates	Years of Credited Service					
	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+
7/1/13 to 6/30/14						
Retirants						
General Members						
Average Monthly Benefit	\$1,913	\$1,624	\$2,024	\$2,722	\$3,553	\$4,788
Average Final Salary	\$6,415	\$5,241	\$5,657	\$5,930	\$6,724	\$6,733
Number of Active Retirants	109	307	240	305	358	726
Safety Members						
Average Monthly Benefit	\$1,542	\$4,454	\$6,018	\$5,225	\$7,467	\$9,719
Average Final Salary	\$6,452	\$8,381	\$10,140	\$9,414	\$10,753	\$11,823
Number of Active Retirants	8	31	18	20	83	212
Survivors						
General Members						
Average Monthly Benefit	\$1,017	\$837	\$936	\$1,726	\$1,888	\$2,550
Average Final Salary	\$4,475	\$4,679	\$3,794	\$4,913	\$4,732	\$6,064
Number of Active Survivors	29	51	37	41	63	119
Safety Members						
Average Monthly Benefit	\$1,031	\$1,709	\$2,056	\$3,132	\$3,827	\$5,358
Average Final Salary	\$6,377	\$6,249	\$5,830	\$6,874	\$6,772	\$7,309
Number of Active Survivors	2	8	6	6	15	22
7/1/14 to 6/30/15						
Retirants						
General Members						
Average Monthly Benefit	\$1,422	\$1,716	\$2,202	\$3,106	\$3,360	\$5,017
Average Final Salary	\$5,939	\$5,543	\$5,903	\$6,731	\$6,294	\$6,970
Number of Active Retirants	126	331	280	308	436	784
Safety Members						
Average Monthly Benefit	\$2,917	\$5,412	\$5,374	\$6,477	\$7,082	\$9,923
Average Final Salary	\$7,015	\$9,261	\$9,810	\$10,748	\$10,400	\$11,847
Number of Active Retirants	20	19	21	28	116	215
Survivors						
General Members						
Average Monthly Benefit	\$903	\$1,021	\$1,342	\$1,854	\$1,799	\$2,741
Average Final Salary	\$4,076	\$4,471	\$5,243	\$5,464	\$4,814	\$5,525
Number of Active Survivors	32	53	40	52	71	126
Safety Members						
Average Monthly Benefit	\$2,101	\$2,054	\$1,768	\$2,911	\$4,530	\$6,206
Average Final Salary	\$5,564	\$6,518	\$4,737	\$6,552	\$6,815	\$8,367
Number of Active Survivors	6	4	9	12	16	29

STATISTICAL SECTION

Schedule of Average Pension Benefit Payments

Last Ten Fiscal Years

Retirement Effective Dates	Years of Credited Service					
	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+
7/1/15 to 6/30/16						
Retirants						
General Members						
Average Monthly Benefit	\$1,619	\$1,809	\$2,265	\$2,893	\$3,462	\$5,163
Average Final Salary	\$6,022	\$5,607	\$6,020	\$6,414	\$6,440	\$7,372
Number of Active Retirants	118	331	273	274	471	837
Safety Members						
Average Monthly Benefit	\$3,134	\$3,776	\$5,743	\$6,290	\$7,540	\$10,730
Average Final Salary	\$7,077	\$9,355	\$10,057	\$10,613	\$11,062	\$12,654
Number of Active Retirants	24	16	27	22	109	205
Survivors						
General Members						
Average Monthly Benefit	\$929	\$752	\$957	\$1,174	\$1,745	\$2,470
Average Final Salary	\$6,444	\$4,670	\$3,996	\$4,367	\$4,825	\$5,339
Number of Active Survivors	30	55	50	51	69	143
Safety Members						
Average Monthly Benefit	\$1,446	\$3,207	\$3,071	\$3,053	\$4,468	\$5,611
Average Final Salary	\$5,927	\$6,777	\$6,628	\$6,941	\$6,825	\$7,529
Number of Active Survivors	6	6	8	9	16	33
7/1/16 to 6/30/17						
Retirants						
General Members						
Average Monthly Benefit	\$1,416	\$1,858	\$2,364	\$3,425	\$3,730	\$5,149
Average Final Salary	\$5,917	\$5,860	\$6,367	\$7,202	\$6,791	\$7,441
Number of Active Retirants	142	338	328	209	507	856
Safety Members						
Average Monthly Benefit	\$2,987	\$3,087	\$6,412	\$6,885	\$7,888	\$11,358
Average Final Salary	\$7,651	\$8,870	\$10,320	\$11,308	\$11,362	\$13,288
Number of Active Retirants	24	25	50	36	153	248
Survivors						
General Members						
Average Monthly Benefit	\$833	\$786	\$1,392	\$1,577	\$1,898	\$2,942
Average Final Salary	\$5,469	\$4,190	\$4,959	\$5,059	\$5,175	\$6,105
Number of Active Survivors	29	52	63	41	72	136
Safety Members						
Average Monthly Benefit	\$3,522	\$4,150	\$2,131	\$3,715	\$4,316	\$6,581
Average Final Salary	\$6,792	\$7,451	\$7,234	\$6,906	\$7,400	\$8,411
Number of Active Survivors	3	5	9	7	16	36

STATISTICAL SECTION

Schedule of Average Pension Benefit Payments

Last Ten Fiscal Years

Retirement Effective Dates	Years of Credited Service					
	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+
7/1/17 to 6/30/18						
Retirants						
General Members						
Average Monthly Benefit	\$1,639	\$1,752	\$2,482	\$3,609	\$3,907	\$5,275
Average Final Salary	\$7,147	\$5,725	\$6,223	\$7,627	\$7,071	\$7,605
Number of Active Retirants	99	339	323	255	470	883
Safety Members						
Average Monthly Benefit	\$3,140	\$4,015	\$5,714	\$6,482	\$8,329	\$11,650
Average Final Salary	\$7,739	\$9,039	\$10,242	\$11,266	\$11,835	\$13,559
Number of Active Retirants	22	21	36	32	126	241
Survivors						
General Members						
Average Monthly Benefit	\$681	\$1,112	\$1,345	\$1,503	\$2,179	\$2,888
Average Final Salary	\$4,138	\$5,668	\$5,145	\$5,071	\$5,596	\$6,179
Number of Active Survivors	17	50	47	38	80	133
Safety Members						
Average Monthly Benefit	\$2,815	\$3,252	\$3,528	\$3,200	\$3,603	\$5,479
Average Final Salary	\$7,817	\$7,192	\$6,670	\$6,327	\$6,905	\$7,833
Number of Active Survivors	7	8	5	7	18	31
7/1/18 to 6/30/19						
Retirants						
General Members						
Average Monthly Benefit	\$1,659	\$1,578	\$3,091	\$3,613	\$3,994	\$6,007
Average Final Salary	\$6,332	\$5,585	\$7,078	\$7,481	\$7,398	\$8,630
Number of Active Retirants	122	337	371	313	447	938
Safety Members						
Average Monthly Benefit	\$4,251	\$4,072	\$5,960	\$8,466	\$9,038	\$12,076
Average Final Salary	\$8,564	\$9,754	\$10,348	\$12,556	\$12,737	\$14,367
Number of Active Retirants	25	30	36	38	137	278
Survivors						
General Members						
Average Monthly Benefit	\$1,129	\$921	\$1,243	\$1,660	\$1,894	\$2,898
Average Final Salary	\$5,507	\$5,704	\$5,510	\$5,402	\$5,204	\$5,928
Number of Active Survivors	38	69	80	81	111	183
Safety Members						
Average Monthly Benefit	\$801	\$2,157	\$2,885	\$2,704	\$3,208	\$6,016
Average Final Salary	\$4,148	\$6,656	\$7,462	\$5,607	\$6,217	\$8,495
Number of Active Survivors	4	8	14	17	29	45

Active Members and Participating Pension Employers

For the Fiscal Years Ended June 30

	2019		2018		2017		2016		2015	
	Covered Members	Percentage of Total Covered Members	Covered Members	Percentage of Total Covered Members	Covered Members	Percentage of Total Covered Members	Covered Members	Percentage of Total Covered Members	Covered Members	Percentage of Total Covered Members
County of Los Angeles										
General Members	86,392	87.092%	85,701	87.020%	84,515	86.931%	82,907	86.865%	81,219	86.704%
Safety Members	12,796	12.900%	12,775	12.972%	12,698	13.061%	12,528	13.126%	12,446	13.286%
Total	99,188	99.992%	98,476	99.992%	97,213	99.992%	95,435	99.991%	93,665	99.990%
Participating Agencies (General Membership)										
South Coast Air Quality Mgmt. District	—	0.000%	—	0.000%	1	0.001%	1	0.001%	1	0.001%
Los Angeles County Office of Education	—	0.000%	—	0.000%	—	0.000%	—	0.000%	—	0.000%
Little Lake Cemetery District	1	0.001%	1	0.001%	1	0.001%	1	0.001%	1	0.001%
Local Agency Formation Commission	7	0.007%	7	0.007%	6	0.006%	7	0.007%	7	0.008%
Total Participating Agencies	8	0.008%	8	0.008%	8	0.008%	9	0.009%	9	0.010%
Total Active Membership ¹										
General Members	86,400	87.100%	85,709	87.028%	84,523	86.939%	82,916	86.874%	81,228	86.714%
Safety Members	12,796	12.900%	12,775	12.972%	12,698	13.061%	12,528	13.126%	12,446	13.286%
Total	99,196	100.000%	98,484	100.000%	97,221	100.000%	95,444	100.000%	93,674	100.000%

	2014		2013		2012		2011		2010	
	Covered Members	Percentage of Total Covered Members	Covered Members	Percentage of Total Covered Members	Covered Members	Percentage of Total Covered Members	Covered Members	Percentage of Total Covered Members	Covered Members	Percentage of Total Covered Members
County of Los Angeles										
General Members	79,934	86.447%	78,997	86.293%	79,459	86.413%	80,133	86.363%	81,400	86.220%
Safety Members	12,523	13.543%	12,539	13.697%	12,485	13.578%	12,641	13.624%	12,997	13.767%
Total	92,457	99.990%	91,536	99.990%	91,944	99.991%	92,774	99.987%	94,397	99.987%
Participating Agencies (General Membership)										
South Coast Air Quality Mgmt. District	1	0.001%	1	0.001%	1	0.001%	1	0.001%	2	0.002%
Los Angeles County Office of Education	—	0.000%	—	0.000%	—	0.000%	3	0.003%	3	0.003%
Little Lake Cemetery District	1	0.001%	1	0.001%	1	0.001%	1	0.001%	1	0.001%
Local Agency Formation Commission	7	0.008%	7	0.008%	6	0.007%	7	0.008%	7	0.007%
Total Participating Agencies	9	0.010%	9	0.010%	8	0.009%	12	0.013%	13	0.013%
Total Active Membership ¹										
General Members	79,943	86.457%	79,006	86.303%	79,467	86.422%	80,145	86.376%	81,413	86.233%
Safety Members	12,523	13.543%	12,539	13.697%	12,485	13.578%	12,641	13.624%	12,997	13.767%
Total	92,466	100.000%	91,545	100.000%	91,952	100.000%	92,786	100.000%	94,410	100.000%

⁽¹⁾ Active Membership excludes terminated vested (deferred) members.

Retired Members of Participating OPEB Employers

For the Fiscal Years Ended June 30

County of Los Angeles and Participating Agencies	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Medical	51,216	50,052	48,812	47,653	46,567	45,576	44,753	43,746	42,627	41,676
Dental/Vision	52,499	51,225	49,890	48,671	47,486	46,383	45,485	44,344	43,114	42,045

Employer Contribution Rates: County of Los Angeles

Last 10 Years

			General Members						Safety Members		
Effective Date			Plan A	Plan B	Plan C	Plan D	Plan E	Plan G ¹	Plan A	Plan B	Plan C ¹
7/1/2009	to	9/30/2010	17.28%	10.62%	9.88%	10.48%	10.45%	—	27.83%	20.35%	—
10/1/2010	to	9/30/2011	19.40%	12.74%	12.23%	12.65%	12.67%	—	29.46%	22.69%	—
10/1/2011	to	9/30/2012	21.59%	15.00%	14.51%	14.80%	15.30%	—	30.38%	24.10%	—
10/1/2012	to	9/30/2013	22.65%	15.55%	15.35%	16.00%	16.77%	—	31.55%	25.37%	—
1/1/2013	to	9/30/2013	—	—	—	—	—	15.61%	—	—	20.98%
10/1/2013	to	9/30/2014	25.08%	17.95%	17.54%	18.24%	19.09%	17.81%	34.63%	27.92%	23.18%
10/1/2014	to	6/30/2015	26.99%	19.49%	19.01%	19.74%	20.95%	19.53%	35.91%	29.26%	25.29%
7/1/2015	to	6/30/2016	25.13%	17.45%	16.90%	17.70%	18.97%	17.66%	34.64%	27.50%	23.46%
7/1/2016	to	9/30/2017	24.11%	15.94%	15.32%	16.19%	17.49%	16.07%	32.25%	25.94%	21.93%
10/1/2017	to	9/30/2018	26.06%	17.50%	16.80%	18.17%	19.57%	18.04%	34.45%	27.75%	23.73%
10/1/2018	to	9/30/2019	26.94%	18.04%	16.85%	18.51%	19.84%	18.53%	34.11%	28.36%	23.97%

⁽¹⁾ As a result of PEPPRA implementation, effective January 1, 2013.

Employer Contribution Rates: Little Lake Cemetery District ¹, Local Agency Formation Commission ², and Los Angeles County Office of Education ³
Last 10 Years

			General Members			
Effective Date			Plan A	Plan D	Plan E	Plan G ⁴
7/1/2009	to	9/30/2010	17.28%	10.48%	10.45%	—
10/1/2010	to	9/30/2011	19.40%	12.65%	12.67%	—
10/1/2011	to	9/30/2012	21.59%	14.80%	15.30%	—
10/1/2012	to	9/30/2013	—	16.00%	16.77%	—
1/1/2013	to	9/30/2013	—	—	—	15.61%
10/1/2013	to	9/30/2014	—	18.24%	19.09%	17.81%
10/1/2014	to	6/30/2015	—	19.74%	20.95%	19.53%
7/1/2015	to	6/30/2016	—	17.70%	18.97%	17.66%
7/1/2016	to	9/30/2017	—	16.19%	17.49%	16.07%
10/1/2017	to	9/30/2018	—	18.17%	—	18.04%
10/1/2018	to	9/30/2019	—	18.51%	—	18.53%

⁽¹⁾ Rates applicable to Little Lake Cemetery District are limited to Plan D.

⁽²⁾ Rates applicable to the Local Agency Formation Commission are limited to Plans D, E, and G. As of November 2016, there were no participating members under Plan E.

⁽³⁾ Rates applicable to the Los Angeles County Office of Education are limited to Plan A. As of June 2012, there were no participating members.

⁽⁴⁾ Rates effective January 1, 2013, were a result of PEPRA implementation.

Employer Contribution Rates: South Coast Air Quality Management District (SCAQMD) ¹*Last 10 Years*

			General Members	
Effective Date			Plan A ²	Plan B ³
7/1/2009	to	9/30/2010	22.02%	16.51%
10/1/2010	to	9/30/2011	24.14%	18.64%
10/1/2011	to	9/30/2012	—	20.90%
10/1/2012	to	9/30/2013	—	21.45%
10/1/2013	to	9/30/2014	—	23.87%
10/1/2014	to	6/30/2015	—	25.38%
7/1/2015	to	6/30/2016	—	21.24%
7/1/2016	to	6/30/2017	—	17.62%
7/1/2017	to	9/30/2017	—	15.94%
10/1/2017	to	9/30/2018	—	17.50%
10/1/2018	to	9/30/2019	—	—

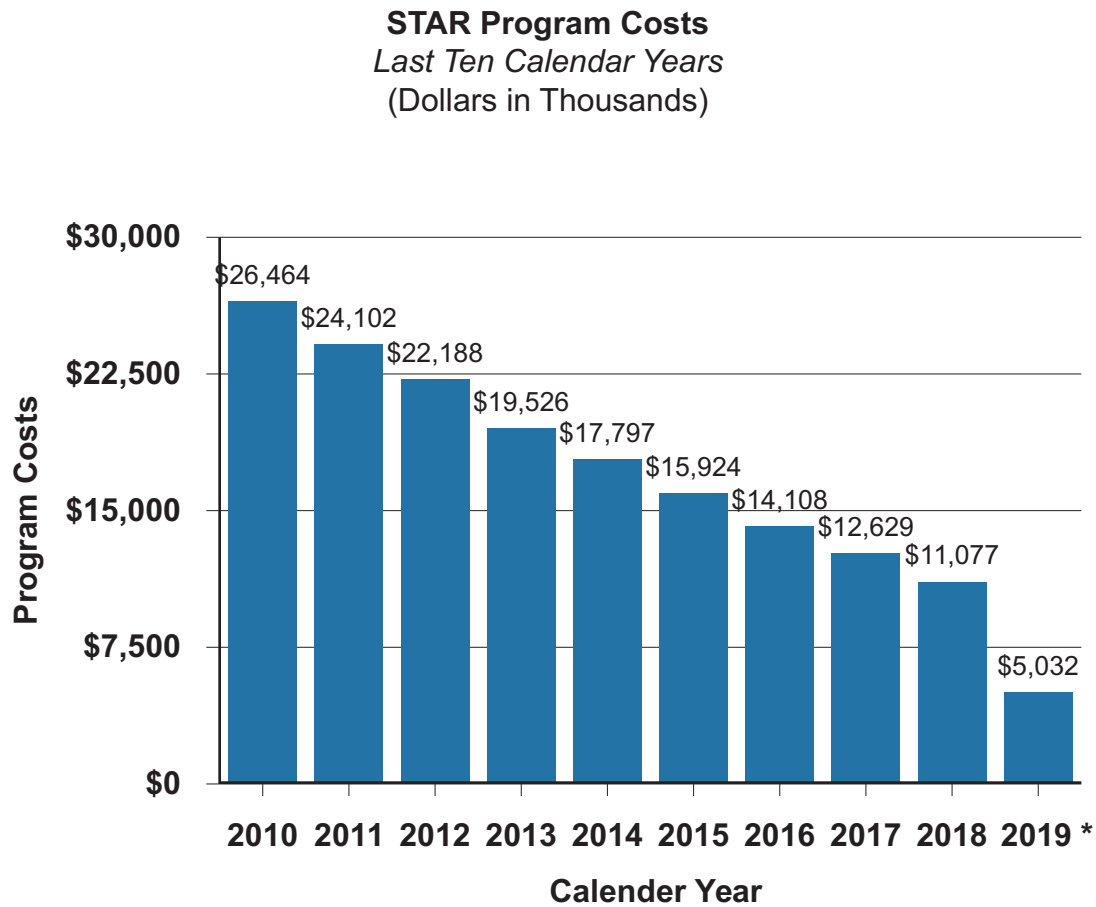
⁽¹⁾ SCAQMD recalculates its employer contribution rates to pick up a portion of its employee rates, in accordance with its labor contract. As of July 1, 2017, per memorandum of agreement, SCAQMD will no longer pick up a portion of employee's contribution and will use LACERA's contribution rates with no pick-up adjustment.

⁽²⁾ Effective March 31, 2011, participating member in Plan A retired, leaving no active members in Plan A.

⁽³⁾ Effective March 31, 2018, participating member in Plan B retired, leaving no active members in Plan B.

Supplemental Targeted Adjustment for Retirees (STAR) Program Costs — Pension Plan

The STAR Program is administered on a calendar-year basis. The chart below represents the STAR Program costs for the last 10 years.



*Represents partial year through June 30.

Calendar Year	STAR Program Costs
2010	\$26,464
2011	24,102
2012	22,188
2013	19,526
2014	17,797
2015	15,924
2016	14,108
2017	12,629
2018	11,077
2019 *	5,032



November 27, 2019

TO: 2019 Audit Committee
Gina Sanchez, Chair
Herman Santos, Secretary
Alan Bernstein
Shawn Kehoe
Ronald Okum
Les Robbins

Audit Committee Consultant
Rick Wentzel

FROM: Richard Bendall 
Chief Audit Executive

FOR: December 5, 2019 Audit Committee Meeting

SUBJECT: **County Auditor-Controller's Report**

Attached is the County of Los Angeles Auditor-Controller's report on its review of LACERA's administrative expenses and operations. The report includes a letter from Chief Counsel stating staff comments. The report is presented to the Audit Committee for discussion.

Attachments



ARLENE BARRERA
AUDITOR-CONTROLLER

COUNTY OF LOS ANGELES DEPARTMENT OF AUDITOR-CONTROLLER

KENNETH HAHN HALL OF ADMINISTRATION
500 WEST TEMPLE STREET, ROOM 525
LOS ANGELES, CALIFORNIA 90012-3873
PHONE: (213) 974-8301 FAX: (213) 626-5427

November 8, 2019

TO: Supervisor Janice Hahn, Chair
Supervisor Hilda L. Solis
Supervisor Mark Ridley-Thomas
Supervisor Sheila Kuehl
Supervisor Kathryn Barger

FROM: Arlene Barrera *Arlene Barrera*
Auditor-Controller

SUBJECT: **LOS ANGELES COUNTY EMPLOYEES RETIREMENT ASSOCIATION –
ADMINISTRATIVE OPERATIONS REVIEW (July 30, 2019,
Board Agenda Item 11)**

On July 30, 2019, the Board of Supervisors instructed the Auditor-Controller to conduct an audit of the Los Angeles County Employees Retirement Association's (LACERA) processes and controls over their administrative operations, which would include, but not be limited to, an analysis of LACERA's cost/budget increases, travel and training expenditures, and overall administrative expense compared to other public employee retirement agencies and/or industry benchmarks to determine whether LACERA provides adequate stewardship over administrative funds and evaluate whether additional targeted reviews would be beneficial.

Background and Scope

LACERA is an independent governmental entity that is responsible for administering retirement, healthcare, and death benefits to over 170,000 active and retired members. LACERA is overseen by nine Board of Investments (Board) members, responsible for establishing LACERA's investment policy and objectives, as well as exercising authority and control over the investment management of the trust fund, and 11 Board of Retirement (Board) members, responsible for the administration of the retirement system, the retiree healthcare program, and the review and processing of disability retirement applications.

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Our review focused on evaluating certain factors that drive LACERA's administrative costs and evaluating LACERA's adoption of best practices. Our review included interviewing LACERA Board members, management and staff, examining policies and procedures, conducting detailed walkthroughs of activities that contribute to LACERA's administrative costs, including spending practices related to offsite meetings, travel, training, bonuses, etc. We also evaluated if LACERA is adequately safeguarding equipment and operating with sufficient technological resources. In addition, we benchmarked LACERA's administrative costs and trends against five public employee retirement agencies (California Public Employees' Retirement System [CalPERS], California State Teachers' Retirement System [CalSTRS], Los Angeles City Employees' Retirement System [LACERS], Orange County Employees Retirement System [OCERS], and San Diego County Employees Retirement Association [SDCERA]).

Our review was limited to an overview of LACERA's processes and controls over administrative accounts. While our review included tests to confirm the existence of processes and controls (e.g., interviews and walkthroughs), it did not include extensive tests to identify whether processes and controls were consistently operating as designed or whether LACERA continually complied with best practices, and LACERA's requirements. In addition, our review did not include LACERA's processes and controls over purchasing (credit cards, reimbursements, contracts, etc.) or payroll and personnel (timekeeping, leave accounting, workers' compensation, etc.).

Summary of Findings

LACERA is subject to the County Employees Retirement Law of 1937 which states that administrative costs may not exceed .21% of the retirement agency's actuarial accrued liabilities. With over \$68.5 billion of actuarial accrued liability, LACERA's maximum allowable administrative costs for Fiscal Year (FY) 2019-20 is \$143.9 million. LACERA's FY 2017-18 administrative costs totaled .13% of their actuarial accrued liabilities, which is below the .21% threshold and within the range of the other public employee retirement agencies that we benchmarked. However, a number of agencies, including those that are not subject to the .21% threshold, have lower administrative cost percentages, which indicates that opportunities exist for LACERA to adopt best practices to be more cost efficient.

LACERA consistently operates below the maximum allowable costs and budgeted \$94.6 million for LACERA's administrative operations in FY 2019-20. We also noted that LACERA consistently operates within their administrative expenditures budget. While we noted LACERA's administrative expenditures increased by approximately 25% between FY 2014-15 and FY 2017-18 (from \$62.6 million to \$78.2 million), this is within the range reported by other public employee retirement agencies that we benchmarked.

However, throughout this report we identify a number of spending practices that suggest LACERA Boards/management need to establish a stronger tone at the top regarding

LACERA's commitment to fiduciary obligation by improving fiscal stewardship over some of their administrative costs, strengthening internal controls, and implementing/revising policies and procedures. The following are examples of areas needing improvement:

- **Offsite Meetings/Retreats** – LACERA Boards/management should consider reducing the cost of the annual two-day offsite Board meetings and/or other retreats. In 2019 LACERA spent \$186,000 for two offsite Board meetings, which included meals and alcohol. LACERA managers also held a separate one-day retreat totaling approximately \$17,000, which included \$51/person for unlimited coffee.
- **Bonuses** – LACERA Boards/management should consider improving controls over bonuses to ensure all bonuses are justified and approved timely, and periodically monitored to ensure bonuses remain valid. We noted instances where bonuses for staff performing work outside their normal responsibilities were approved retroactively up to six years in arrears without an explanation for the delayed request.
- **Equipment Management** – LACERA Boards/management should consider implementing procedures to periodically inventory all equipment, and investigate missing items. Management indicated that an organization-wide portable equipment inventory was last conducted in 2003. During our review, LACERA was conducting a physical equipment inventory and although it is still ongoing (90% of the locations have been counted), LACERA only accounted for approximately 1,913 (62%) of 3,091 reported assets.
- **Education/Travel** – LACERA Boards/management should consider further strengthening the recently revised Education and Travel Policy (Policy). While LACERA Board members took steps to update their Policy as recommended by a recent LACERA internal audit, we believe the Policy can be strengthened further. For example, the revised Policy continues to allow practices that appear to be very generous compared to the County of Los Angeles (County) or benchmarked public employee retirement agencies, includes unclear language (e.g., "allowed when reasonably necessary"), and does not require travelers to submit itemized receipts. In FY 2018-19 LACERA's Board members took 73 trips totaling \$326,000 and management/staff took 336 trips totaling \$475,000. As indicated in LACERA's recent internal audit, LACERA incurred significantly higher costs for Board educational travel in FY 2018-19 than its larger peers - CalPERS, a \$350 billion fund as of June 2018, or CalSTRS, a \$226.1 billion fund as of May 2019.
- **Other Matters** – As part of assessing processes and controls over administrative accounts, we interviewed over 25 LACERA key personnel and Board members. While this sample was limited and not intended to be representative of LACERA as a whole, several interviewees voluntarily reported an environment of

entitlement, favoritism, fear and retaliation and indicated that LACERA's organizational culture should be improved. The interviewees indicated that they were reluctant to speak with us and preferred to meet offsite because they feared retaliation. Interviewees also indicated they do not trust LACERA's fraud hotline process due to a perceived lack of independence. LACERA's Internal Audit Division indicated that the hotline received one call over a six-month period. LACERA Boards/management are in the process of hiring an independent consultant to review LACERA's work culture. The Boards/management should consider sharing our report with the independent consultant to ensure that the consultant is aware of issues discussed throughout the report.

Review of Report

We discussed the results of our review with LACERA. LACERA's response is attached and indicates they do not agree with all our specific findings; nonetheless, they are in the process of addressing some issues, and they will share our report with the LACERA Boards and management for their consideration.

LACERA's response also indicates we exceeded our audit scope by reviewing non-financial issues which are described in the last section of our report, entitled *Other Matters*. These concerns regarding LACERA's organizational culture were brought to our attention by interviewees during the course of our audit and we would have been remiss in not reporting them. In addition, LACERA's response states that our report does not dispute they are effective in serving its members. However, our scope was limited to an overview of LACERA's processes and controls over administrative accounts, therefore we did not evaluate their effectiveness in serving its members.

We thank LACERA management and staff for their cooperation and assistance during our review. If you have any questions please call me, or your staff may contact Mike Pirolo at (213) 253-0100.

AB:PH:MP:YK:cc

Attachments

c: Sachi A. Hamai, Chief Executive Officer
Steven P. Rice, Chief Legal Counsel, LACERA
Celia Zavala, Executive Officer, Board of Supervisors
Audit Committee
Countywide Communications

**LOS ANGELES COUNTY EMPLOYEES RETIREMENT ASSOCIATION –
ADMINISTRATIVE OPERATIONS REVIEW**

Background and Scope

The Los Angeles County Employees Retirement Association (LACERA) is an independent governmental entity that is responsible for administering retirement, healthcare, and death benefits to over 170,000 active and retired members. LACERA is overseen by nine Board of Investments (BOI or Board) members, responsible for establishing LACERA's investment policy and objectives, as well as exercising authority and control over the investment management of the trust fund, and 11 Board of Retirement (BOR or Board) members, responsible for the administration of the retirement system, the retiree healthcare program, and the review and processing of disability retirement applications.

LACERA is subject to the County Employees Retirement Law of 1937 (CERL) which states that administrative costs may not exceed .21% of the retirement agency's actuarial accrued liabilities. With over \$68.5 billion of actuarial accrued liability, LACERA's maximum allowable administrative costs for Fiscal Year (FY) 2019-20 is \$143.9 million. However, LACERA consistently operates below the maximum allowable costs and budgeted \$94.6 million for LACERA's administrative operations in FY 2019-20.

On July 30, 2019, the Board of Supervisors instructed the Auditor-Controller to conduct an audit of LACERA's processes and controls over their administrative operations, which would include, but not be limited to, an analysis of LACERA's cost/budget increases, travel and training expenditures, and overall administrative expense compared to other public employee retirement agencies and/or industry benchmarks to determine whether LACERA provides adequate stewardship over administrative funds and evaluate whether additional targeted reviews would be beneficial.

With the support and active participation of LACERA, we have completed a review of some of LACERA's administrative operations and internal controls as directed by the Board of Supervisors. Our review focused on reviewing certain factors that drive LACERA's administrative costs and evaluating LACERA's adoption of best practices.

Our review included interviewing LACERA's Board members, management, and staff, examining policies and procedures, conducting detailed walkthroughs of activities that contribute to LACERA's administrative costs, including spending practices related to offsite meetings, travel, training, bonuses, etc. We also evaluated if LACERA is adequately safeguarding equipment and operating with sufficient technological resources. In addition, we benchmarked LACERA's administrative costs and trends against five public employee retirement agencies (California Public Employees' Retirement System [CalPERS], California State Teachers' Retirement System [CalSTRS], Los Angeles City Employees' Retirement System [LACERS], Orange County Employees Retirement System [OCERS], and San Diego County Employees Retirement Association [SDCERA]).

We noted various opportunities for LACERA to improve and strengthen internal processes and controls.

Budget and Expenditures

LACERA is subject to CERL which states that administrative costs may not exceed .21% of the retirement agency's actuarial accrued liabilities. As indicated in the table below, LACERA's FY 2017-18 administrative costs totaled .13% of their actuarial accrued liabilities, which is below the .21% threshold and within the range of the other public employee retirement agencies that we benchmarked. However, as shown below, a number of agencies, including those that are not subject to the .21% threshold, have lower administrative cost percentages, which indicates that opportunities exist for LACERA to adopt best practices to be more cost efficient.

Administrative Costs to Actuarial Accrued Liabilities		
Public Employee Retirement Agency	FY 2017-18 Administrative Costs (in millions)	% of actuarial accrued liabilities
LACERA	\$ 78.2	0.13%
CalPERS ¹	886.3	0.20%
CalSTRS ¹	221.4	0.08%
OCERS ²	18.3	0.10%
LACERS ¹	16.4	0.09%
SDCERA ²	13.2	0.09%

Although we noted LACERA's expenditures increased 25% between FY 2014-15 and FY 2017-18 (from \$62.6 million to \$78.2 million), the increase is within the range reported by other public employee retirement agencies that we benchmarked. The benchmarked public employee retirement agencies ranged between a 6% decrease to a 50% increase over that same period.

In addition, we reviewed LACERA's overall budget and expenditures for each of LACERA's divisions over the same three years and noted that the individual divisions generally operated within their budget. However, we noted the following divisions had expenditure increases that exceeded LACERA's overall 25% expenditure increase: Investment Office - \$4.5 million (76%), Benefits - \$2.1 million (32%), Legal Services - \$1.6 million (41%).

¹ CERL applies only to California's county pension funds. CalPERS, CalSTRS, and LACERS are not subject to CERL's expenditure limits based on the actuarial accrued liabilities limits.

² CERL does not specify the time period for which the actuarial accrued liabilities should be calculated. These public employee retirement agencies may have selected a different actuarial accrued liabilities valuation date, resulting in a higher/lower actuarial accrued liabilities percentage.

We also noted that LACERA can improve clarity and transparency by recording expenditures in units/divisions where they are incurred. For example, we noted that Board offsite meetings and meals, discussed further below, are budgeted and reported as miscellaneous expenses under the Executive Office instead of the Boards. Reporting expenditures in units/divisions where they are incurred improves transparency and simplifies budget and related policy decisions.

Recommendations

LACERA Boards/management consider:

- 1. Analyzing LACERA's administrative costs, evaluating other public employee retirement agencies' administrative costs, and adopting best practices to be more cost efficient.**
- 2. Implementing processes to ensure expenditures are reported in units/divisions where they are incurred.**

Spending Practices

As mentioned above, LACERA operated within their overall administrative expenditures budget. However, we identified a number of spending practices that suggest LACERA Boards/management should consider re-evaluating policies associated with the spending of administrative funds. For example, we noted concerns in the following areas:

- Offsite meetings and retreats for Board members and staff
- Staff bonuses
- Travel for Board members and staff
- Electronic devices for Board members

Each of these areas is discussed in more detail below. Based on the observations we made during our review, we believe that overall, LACERA could benefit from an organization-wide re-evaluation of certain spending practices of taxpayer and County of Los Angeles (County) employee funded pension contributions. We believe there is an opportunity for LACERA Boards and management to more clearly demonstrate LACERA's expressed commitment to their fiduciary and fiscal obligations to current and future pensioners, and establish a more fiscally prudent tone at the top.

Recommendation

- 3. LACERA Boards/management consider re-examining its administrative spending and issue a memo to all LACERA Board members and staff to reinforce the organization's commitment to upholding their fiduciary obligation.**

The remainder of this report discusses our specific observations of LACERA's spending practices over certain administrative funds that we noted during our review. In addition, while our focus was to review select administrative expenditures, matters came to our attention during the course of our review involving the overall organization culture. These issues are discussed at the end of this report.

Offsite Board Meetings/Retreats

Annually, the BOI and the BOR each hold two-day offsite Board meetings to develop organizational strategies and conduct trainings. For the three years ending June 30, 2018, offsite Board meeting costs have increased by 166% (\$80,000 to \$213,000) and exceeded their budget between 113% to 287%. In addition, we noted that LACERA increased the offsite Board meetings budget from \$150,000 to \$200,000 (33%) for FY 2019-20.

As an example of an offsite meeting, LACERA spent a total of \$186,000 in 2019 for two offsite Board meetings, lasting two days each, held in Santa Monica and Long Beach. The total cost included over \$50,000 for lodging and incidentals, \$64,000 for meals (including alcohol), and \$72,000 for room rental, audio-visual equipment, etc.

LACERA also periodically holds separate management retreats. A recent one-day retreat at a hotel in Pasadena for 50 managers totaled approximately \$17,000, which included \$51/person for unlimited coffee.

As a comparison, the County has very strict and explicit written rules regarding retreats in its County Code and County Fiscal Manual. Among the requirements, County departments cannot spend more than the limits specified in the maximum reimbursement rates for travel, meals, lodging, and incidental expenses (generally \$229.25 for lodging, \$13.75 for breakfast, \$18.00 for lunch, etc.). In addition, County departments must identify cost-control methods that were utilized in the planning and execution of the retreat on a report to the County Chief Executive Office (County CEO), which must include itemized costs per employee. The County CEO is also required to submit a semi-annual report to the Board of Supervisors on the Countywide retreat activities. LACERA should consider adapting similar retreat/offsite meeting policies.

Recommendations

LACERA Boards/management consider:

- 4. Evaluating benefits and costs of Board and management offsite meetings/retreats and implementing changes to reduce associated costs.**
- 5. Adopting similar offsite meeting/retreat policies as the County.**

Bonus Monitoring and Oversight

LACERA does not have formal written procedures for initiating and approving bonuses. Management indicated that division managers submit bonus requests to the Assistant Executive Officer which are then forwarded to the Human Resources (HR) manager and LACERA's Chief Executive Officer (CEO) for approval. We reviewed LACERA's bonus monitoring and oversight and noted the following:

Bonus Approval/Timeliness

LACERA needs to implement procedures and oversight to ensure that bonuses are appropriate and requested/approved timely. We reviewed a judgmental sample of 12 bonuses and found:

- **Retroactive Bonuses** – We noted two instances where Additional Responsibilities (AR) bonuses were requested and approved in August 2019 for work performed since 2013 (i.e., retroactive to 2013) with limited written justification. Specifically, the justification indicated that the bonus recipient performed higher level administrative/technical duties since 2013, without an explanation for the delayed request. Although management approved the AR bonuses, when significant time lapses it is difficult to validate/verify that the employees performed the eligible duties.
- **Bonus Manipulation/Preferential Treatment** – In another instance, in October 2017 LACERA temporarily promoted an employee to a higher-level position that was not approved by the County CEO by revising the organizational chart to create the new position. For this temporary promotion, the employee received a Superior-Subordinate (SS) bonus of approximately \$5,000 per month (33%) more than the employee's previous salary. A year later, management simultaneously pre-approved a 4.5% salary increase and an 11% AR bonus to become effective if/when the manager returned to his/her original assignment. In December 2018, the manager was returned to the original position and while the SS bonus was cancelled, the 11% pre-approved AR bonus was implemented.
- **Classification Circumvention** – LACERA approved an AR bonus to a manager for performing work outside of their classification, and the bonus approval documentation indicated that the bonus would be cancelled when the manager's position was appropriately reclassified to include the additional duties. However, when the County approved the reclassification, it did not include a salary increase so LACERA management decided to continue the bonus even though the manager is no longer working outside of their classification.

We also noted that 34 (9%) of LACERA's 374 non-investment management/staff receive AR bonuses for performing work that is above their class specifications. In comparison, we surveyed four County departments (Chief Executive Office, Auditor-Controller, Board of Supervisors, and County Counsel) and noted that less than 1% of staff/management

receive AR bonuses. An excessive number of employees working above their class specifications may be an indication of mis-aligned job assignments, budgeted positions and/or class specifications, and increases the potential for abuse.

Periodic Bonus Reviews

LACERA management indicated that in June 2019 they implemented a process to review AR bonuses for eligibility every six months. However, LACERA does not have organization-wide bonus reports or a formal written policy to periodically review all bonuses and to cancel bonuses when recipients are no longer eligible. We noted that some LACERA staff have been receiving duty related bonuses (e.g., bilingual, AR) for up to ten years and without performing periodic reviews, management cannot ensure that staff continue to be eligible. In comparison, the County requires departments to review all bonuses at least annually.

Recommendations

LACERA Boards/management consider:

- 6. Establishing written policies/procedures to ensure that bonuses are implemented timely and adequately documented, and to periodically review all bonuses to ensure continued eligibility.**
- 7. Developing bonus reports to improve bonus monitoring and oversight.**
- 8. Reviewing all bonuses, cancel bonuses that are no longer applicable, and seek recovery for any overpayments.**
- 9. Working with the County of Los Angeles Chief Executive Office to ensure budgeted positions align with job assignments.**

Wireless Devices and Equipment Management

Wireless Devices

LACERA's Systems Division (Systems) is responsible for maintaining and tracking all wireless (cellular phones, tablets, laptops) devices. Systems management indicated they reconcile their internal lists of mobile devices and wireless accounts, but they do not reconcile mobile devices to authorized users or wireless bills. As a result, we noted that LACERA may be paying for unneeded phone services. Specifically, LACERA's internal records showed approximately 180 wireless devices; however, LACERA's wireless bills show that LACERA maintains approximately 215 wireless lines each month.

We also reviewed LACERA's current list of active wireless devices and noted instances where the device holder no longer works with/for LACERA. For example, an individual terminated service in 2017, but LACERA continued to pay for the monthly services, and

its internal reports indicated that the person's phone is still active. Subsequently, LACERA indicated that they had taken possession of the phone and were continuing to use it, but they had not reassigned the phone to an individual. We noted that between June 1, 2019 and August 31, 2019, LACERA's wireless bills averaged approximately \$8,000 a month. Lack of sufficient processes and procedures to reconcile wireless devices increase the risk of fraud/abuse and inefficient use of resources.

Equipment

We reviewed LACERA's practices related to managing portable equipment (e.g. tablets, desktops/laptops, printers, fax machines, cell phones) and noted the following:

- **Portable Equipment Inventory** - LACERA management indicated that the most recently completed organization-wide inventory was conducted in 2003. In addition, although LACERA conducts periodic cycle counts (counting all equipment in a given area), they do not reconcile the count to a master inventory list and investigate discrepancies. As a result, management cannot ensure that all purchased equipment is accounted for. During our review, LACERA was conducting a physical equipment inventory and, although it is still ongoing (approximately 90% of the locations have been counted), LACERA has only accounted for 1,913 (62%) of 3,091 reported assets.
- **Equipment Assignment** - While other public employee retirement agencies we reviewed provide Board members with a tablet and/or cell phone to perform their duties, LACERA's Board members may receive tablets, desktops/laptops, printers, fax machines, data lines, home Internet service, and more to perform their duties. We noted that some Board members received two LACERA-issued laptops and two tablets or are reimbursed for the full cost of their home Internet when the LACERA-issued tablets already include cellular Internet service.

Recommendations

LACERA Boards/management consider:

- 10. Implementing procedures to periodically reconcile wireless devices, assigned users, and wireless bills.**
- 11. Implementing procedures to periodically inventory all equipment, investigate any missing items, and maintain documentation.**
- 12. Identifying all equipment assigned to Board members and staff, evaluate reasonableness, and establish policies and procedures related to equipment assignments, specifying the equipment type and quantity allowed per Board member/staff.**

Travel/Training

In FY 2018-19, LACERA's Board members took 73 trips totaling \$326,000 and management/staff took 336 trips totaling \$475,000. During the same time period, LACERA's 15 Board members and 410 staff spent \$164,000 and \$137,000 respectively on educational conferences and administrative meetings.

In June 2019, LACERA's Internal Audit Division (IA) issued a report on Board and Staff Education and Travel and included recommendations to increase accountability and improve fiduciary oversight and control. The IA's report also indicated LACERA incurred significantly higher costs for Board educational travel in FY 2018-19 than its larger peers - CalPERS, a \$350 billion fund as of June 2018, or CalSTRS, a \$226.1 billion fund as of May 2019. Based on our review, findings and recommendations included in IA's report appear appropriate. Subsequently, in August 2019, LACERA Boards approved the revised Education and Travel Policy (Policy). However, we reviewed the revised Policy and noted the following:

Travel Policy

The revised Policy related to travel lacks key controls and does not comply with best practices established by other public employee retirement agencies, County, and/or IA's recommendations in the following areas:

Cost Effectiveness

- Allows Board members to travel within California without pre-approval if costs are below \$2,000 per trip and \$10,000 annually. In comparison, the County requires pre-approval on all travel arrangements regardless of the cost.
- Board members/staff may upgrade to business class when total trip time, including layovers, exceeds five hours or for international flights. In addition, LACERA will pay the additional cost for coach/economy class seats that advertise additional leg room regardless of trip time. None of the five public employee retirement agencies we benchmarked allowed business class upgrades. County business travelers are also required to travel in coach/economy class.
- Lodging per diem limits appear excessive. The Policy permits up to three times the Internal Revenue Service (IRS) per diem rate. For example, the IRS per diem rate for Santa Monica is \$248 a night, but per LACERA Policy travelers may spend up to \$744 (or three times the per diem rate of \$248) a night for lodging in Santa Monica. LACERA's per diem rates are higher than all of the agencies we benchmarked.
- Board members/staff may be reimbursed for gym fees, expedited security, etc., which are not allowed by other public employee retirement agencies we benchmarked, or the County.

- The Policy does not prohibit the purchase of expensive refundable tickets or high-fare ride sharing services such as Uber Black and Lyft Premier, etc. In comparison, the County's policy generally requires the travelers to use the least expensive method of travel/transportation.
- The Policy allows travelers to request per diem reimbursement even when meals are provided by the hotel/conference or during a flight. County policies prohibit this practice.

In addition, while the Policy generally requires pre-approval for travel, it specifically authorizes Board members to waive compliance with any Policy requirement and to approve travel after the travel has been completed. Furthermore, during a recent Board meeting on the \$10,000 limit for in-state travel, there was discussion that it is Board members' right to be reimbursed up to \$10,000 annually for travel without pre-approval and the \$10,000 is not intended to be a limit. A flexible policy, and financially unconservative tone at the top appear to minimize the importance of ensuring that travel costs are reasonable.

Unclear Language

The Policy indicates that additional travel expenses incurred before or after an event (e.g., arriving a day early or leaving a day late) will be reimbursed if reasonably necessary but does not establish criteria for 'reasonableness'. Similarly, while the Policy allows travelers to use business class or equivalent in certain instances, the Policy does not identify the 'equivalent' of business class, which is sometimes interpreted as first class. However, there are significant cost differences between the two classes.

The Policy also requires the lowest available airfare offered by United, American or Delta implying that the traveler may choose the lowest cost airfare of any one of the three carriers, rather than the lowest cost overall. In addition, the Policy indicates that travel to Mexico/Canada is international travel deserving business class air travel, whereas the same Policy indicates that training in Mexico/Canada is not considered international for purposes of educational conference limits.

Centralized Travel Process

LACERA does not have a centralized travel processor, or an independent vendor that provides travel related services to help ensure consistent Policy compliance. In comparison, the County mandates that all County-related business travel be arranged through a County-approved travel agency.

Recommendations

LACERA Boards/management consider:

- 13. Revising the Travel Policy to ensure it is clear, well-defined, and includes cost control measures such as:**
 - a) More stringent requirements on pre-approval, lodging costs, incidental costs, and the use of business class.**
 - b) Requiring travelers to obtain the lowest overall price amongst major carriers.**
 - c) Prohibiting per diem reimbursements when meals are provided by the hotel/conference or during a flight.**
- 14. Implementing an in-house centralized travel process, or contract with an independent vendor to provide travel related services.**

Training Policy

Similar to the travel policies, the revised training policies appear to lack key controls and do not comply with best practices established by other public employee retirement agencies, the County, and/or LACERA IA's recommendations in the following areas:

Proof of Attendance

Proof of attendance is not required for educational conferences and administrative meetings. Four of the five agencies we benchmarked require a full report for conferences/meetings to promote information sharing amongst peers, to identify conferences/meetings that would be beneficial in the future, and to ensure attendance at the event.

Cost Effectiveness

We noted that the Policy does not establish guidelines for the cost and number of administrative meetings (legislative advocacy, speaking engagements, networking opportunities, etc.) that Board members may attend. The Policy does limit Board members to attend four educational conferences if serving on one Board or six if serving on both Boards. However, we noted that the updated Policy now allows two educational conferences to be counted as one when they are held within two days of each other and do not require additional transportation costs. It should be noted that some of these educational conferences cost as much as \$10,000 per person for registration, and additional lodging and related expenses would also be incurred. Although LACERA recently revised the Policy and reduced the number of allowable educational conferences due to concerns over travel and training costs, allowing two conferences to count as one conference appears counterproductive.

We also noted that LACERA's Policy does not promote cost effective training (in-house, local, or web-based training) whenever possible. In comparison, the County encourages e-learning whenever possible.

Educational Strategies/Goals

Although the Boards comply with CERL, which requires Board members to complete 24 hours of education every two years, LACERA's revised Policy still does not require Board members to establish specific educational strategies/goals for individuals or the organization. Reported best practices (i.e., *Clapman Report 2.0 Model Governance Provisions to Support Pension Fund Best Practice Principles*) and some of the agencies that we benchmarked encourage Board members to establish specific educational strategies/goals.

We noted that the recommendation to establish education strategies/goals was included in IA's June 2019 report. However, LACERA Boards have not taken corrective action to address the recommendation. Establishing specific strategies/goals for LACERA Board members and staff should help ensure that training costs and related travel expenses are justified and coincide with overall strategies/goals.

Recommendations

LACERA Boards/management consider:

- 15. Requiring conference/meeting attendees to submit proof of attendance, report back on conference/meeting, and seek reimbursement for any meeting or travel costs if attendance is not supported or documented.**
- 16. Revising the Education and Travel Policy to ensure that the number of educational conferences reported accurately reflects the number of educational conferences attended and provide clear guidelines for the number and cost of administrative meetings.**
- 17. Establishing a policy to promote cost-effective training (in-house, local, web-based) whenever possible and practical.**
- 18. Developing organizational and/or individual training/education goals and develop a process to periodically evaluate and update progress towards the goals.**

Technology Efficiency

During our review, LACERA management/staff indicated numerous areas where software/applications or connectivity can significantly improve efficiencies and/or provide better member services. Insufficient technology resources can result in inefficient use of resources and circumvention of internal controls. LACERA management/staff indicated

that these issues had been discussed in the past but have not been adequately resolved to meet end-user needs. Some of their suggestions include:

- **Case Management System (CMS)** – In October 2013, LACERA held a kick-off meeting to discuss a CMS. LACERA recognized that a comprehensive CMS would allow management/staff to track workflow, identify bottlenecks, calculate performance metrics, and maintain documentation from the beginning of a case to the end under one database, rather than manually updating and tracking cases and benefits over ten separate databases.

As of October 2019, LACERA had not purchased or implemented a CMS and Systems management indicated that they will begin coding for a new CMS in 2020. In addition, LACERA management had not prepared detailed planning documentation specifying project timeline, scope, budget, and objective, etc. or to ensure functionality meets users' needs. Having a complete planning document for a significant system improvement would increase accountability and help ensure timely implementation.

- **Automated accounts payable system** – In 2018, an independent auditor recommended an automated system to ensure payments are appropriately approved. LACERA management indicated this project is in the preliminary research phase and no timeline for implementation has been established.
- **Member Services field connectivity** – Member Services staff indicated they cannot efficiently respond to specific member questions while they are in the field because they do not have access to their work applications. LACERA management indicated staff are not given access to their work applications offsite due to security concerns. However, many organizations have implemented two-factor authentication or other measures to ensure offsite security for sensitive information.
- **Budgeting software** – Administrative Services Division prepares the budget using over 100 Excel worksheets that cannot readily produce reports or integrate to the accounting software. As a result, LACERA cannot generate basic budget related reports (e.g., budget to actual expenditures) without labor-intensive manual entries.
- **Interactive training/eLearning** – Quality Assurance and Metrics Division (QA) instructors use PowerPoint presentations to train new Retirement Benefit Specialist (RBS) staff in a year-long training program. Management indicated that QA instructors and RBS trainees can benefit from self-training with interactive training modules that cost less than \$5,000.
- **Electronic access to Board meetings** – The Boards do not live-stream or digitally archive meetings for staff and public access. LACERA management/staff indicated this impacts their ability to respond timely to Board discussions.

Some of the software/applications and lack of field connectivity may potentially be attributable to the staffing and vacancy issues in Systems discussed in the section below.

Recommendation

- 19. LACERA Boards/management consider working with divisions to determine technology needs, strategically evaluate and prioritize competing needs, and periodically re-assess and update the status of technology projects.**

Systems Division

Every division within LACERA requires Systems' support to complete their duties efficiently and effectively. Systems oversees more than 20 separate business processes including: application and web development/maintenance, cybersecurity, Information Technology (IT) hardware, security (surveillance cameras and keycard access), telecommunications, help desk, mobile device (cell phones, tablets, etc.) management, and updating bank signatories.

Staffing and Vacancies

It appears Systems must manage multiple competing priorities with insufficient staffing. For the three years reviewed (FY 2015-16 through FY 2018-19), Systems vacancies increased from 12 to 15 positions. In FY 2019-20, Systems budget indicates that 20 (35%) of Systems' 57 budgeted positions are vacant. The staffing shortage may have been partially offset by nine IT professionals contracted between 1991 and 2018.

LACERA Systems management indicated they have difficulty filling positions because they cannot compete with private IT related companies to recruit high-level staff with the necessary qualifications and expertise. However, as discussed further below, LACERA's IT staff hiring practices appear to have been passive, and do not support Systems management's assertion that they are having difficulty filling the positions due to competition.

Although LACERA management indicated their systems and IT staff requirements may not be directly comparable to the County's, we noted the County's Internal Services Department and Auditor-Controller's Systems Division do not experience similar shortages or recruiting difficulties in their IT staffing.

Recruitment Practices

We discussed Systems vacancies with LACERA's HR and Systems management. Systems management indicated that Systems generally hires temporary agency staff. When Systems wants to permanently hire agency staff, they write the examination's desirable qualifications to meet the candidates' abilities and open the examination for a limited time, so they can manage the candidate pool.

We verified the practice by reviewing LACERA's examination logs from January 1, 2016 through September 17, 2019, and noted that during the 44-month period, LACERA opened two competitive IT exams for a combined total of 82 hours (17 hours for Data

Systems Analyst, 65 hours for Data Systems Coordinator). In addition, even though the examinations were supposed to be ‘open competitive’ meaning they were open to everyone, Systems’ desirable qualifications are so specific that most candidates outside of LACERA do not qualify. For example, exams are weighted 100% on application information and desirable qualifications included:

“Three or more years’ experience training LACERA staff and Board members on how to use mobile devices...”

“Demonstrated knowledge of the Countywide payroll and LACERA payroll batch processing.”

We noted that there were 774 views on the two job postings, but only 23 candidates applied. As stated earlier, this hiring practice does not support Systems management’s assertion that they cannot fill the vacancies since they are unable to compete with private IT companies. Inadequate outreach and recruitment efforts limits Systems ability to attract necessary and qualified staff, and complete critical IT assignments.

We followed up with Systems management to inquire as to why they did not aggressively recruit more staff, but management could not provide a valid reason other than indicating that the exam process is HR’s responsibility.

Recommendations

LACERA Boards/management consider:

- 20. Implementing procedures to ensure examinations provide an equal opportunity to all qualified applicants and do not provide an unfair advantage to pre-selected candidates.**
- 21. Ensuring that Systems Division and Human Resources Division work together to develop a plan for outreach and recruitment.**

Job Assignments and Separation of Duties

Some Systems staff’s duties do not appear to correspond with Systems’ core job functions. For example, a Systems manager is assigned to update bank signatories. Signature cards identify the rightful signers for bank accounts and updating signatories is usually the responsibility of the Chief Financial Officer or the Chief Investment Officer. However, LACERA does not have a formal written policy to indicate who should be responsible for updating bank signatories.

In addition, Systems management indicated that they structurally separate duties to minimize the risk that staff can access and/or change critical systems, but Systems has no formal policies. We requested a list of access roles to Systems’ applications/software (Microsoft Office 365, Workspace, Member Portal, HR Data, etc.) to verify if they

sufficiently separated duties and restricted access as appropriate. However, Systems management declined to provide a list, citing security concerns that information could be used to exploit LACERA's systems. Systems management subsequently provided a self-assessment report for financial software that they completed at the request of LACERA's external auditors. The report indicates that Systems management is willing to accept the risk where there is an insufficient separation of duties. We believe the decision to accept the risk due to insufficient separation of duties should be made by the Boards or the CEO.

Recommendation

22. LACERA management consider establishing a process to periodically complete a documented review of Systems Division's applications and system access roles to ensure that roles are appropriate, and duties are adequately separated.

- **If duties cannot be sufficiently separated, consider implementing alternative controls, including staff rotation, and evaluate and document the Boards' and executive management's risk appetite.**

Independent Information Technology Review

As discussed, we noted a number of areas where LACERA can potentially improve its overall Systems related operations and efficiencies. Since Systems Division is already facing staffing issues, it may be beneficial for LACERA to consider obtaining an independent consultant to complete an IT review. An independent review will bring in an outside perspective, may be able to identify problems that employees who are too close to the process/issues may not see, and ensure objectivity. To further ensure objectivity, LACERA management should consider hiring an independent consultant to develop a Request-for-Proposal (RFP) including a Statement of Work, based on input from LACERA management/staff.

Recommendation

23. LACERA management consider obtaining an independent consultant to draft a Request-for-Proposal including Statement of Work and complete an independent information technology review that includes:

- a) **IT resources and efficiency, including work-related applications.**
- b) **Operational efficiency and appropriate job functions.**
- c) **IT staffing assessment.**
- d) **Span of control and separation of duties.**

120-Day Temporary Assignments

Civil Service rules indicate that a retiree may be reinstated to a 120-day temporary assignment if the retiree possesses special skills or knowledge. Management is

encouraged to develop a transition plan to ensure that the retiree's special skills/knowledge are transferred to current employees and the retiree is returned to their retirement.

LACERA reinstated two retirees on 120-day temporary assignments seven and 12 years ago but has not established transition plans to ensure the retirees can be returned to their retired status. One of the retirees was reinstated in 2006 to train her successor. In FY 2018-19, the retiree accumulated \$30,000 in travel/training expenses while assisting her successor.

Lack of transition plans increases the risk of excessive costs and inefficient use of resources, ineffective succession planning, and reliance on the institutional knowledge of retirees.

Recommendation

- 24. LACERA management consider developing transition plans for 120-day temporary employees and implement a process to periodically review and update transition plans as needed.**

Keycard Access

LACERA's headquarters is open to the public from 6 a.m. to 6 p.m. LACERA uses keycards to prevent unauthorized access to their business operations. Inadequate controls over keycards increases the risk of unauthorized access to LACERA's assets and confidential/sensitive information.

Systems is responsible for adding, deleting, and updating keycard access to the LACERA offices. Systems management indicated they work with HR to ensure keycard access is appropriately maintained and periodically reconciled. However, we noted the reconciliation was limited to reviewing access to the parking garage and did not include the office keycards.

Systems management indicated they do not periodically reconcile keycard access to ensure only approved staff/contractors have access to the LACERA offices because they do not want to remove access in error. We requested a list of keycard holders to verify that current cardholders are authorized to access LACERA offices, but Systems management declined to provide a list citing security concerns.

Recommendation

- 25. LACERA management consider developing processes to periodically reconcile keycard access and remove or update access when it is no longer needed or appropriate.**

Policies and Procedures

Policies and procedures should provide detailed guidance to staff and supervisors in the performance of their day-to-day duties and describe how processes are performed. Having updated and uniform policies and procedures are critical for ensuring LACERA's processes are consistent, and staff perform duties adhering to established policies/procedures and internal controls.

We noted that some of LACERA's policies and procedures are outdated, incomplete or inconsistent. For example, LACERA does not have a policy to describe how Board members should request/obtain equipment. As a result, the process is not consistent, making it difficult to track Board members' equipment.

Additionally, LACERA's January 2010 Information Technology Policies, Email/Electronic Use Policy (e-mail Policy) lacks key controls to limit who can access to view employee e-mails. The e-mail Policy indicates that employees' e-mail may be accessed with management consent but does not require documented justification (e.g., suspected fraud), does not identify the level of management with the authority to request access, or how the request should be documented.

Although LACERA management indicated that it is understood the request to access employee e-mails must come from the Legal Division, as currently written, any manager may request access to staff e-mails or a Systems manager may self-approve access to other employees' e-mails.

In addition, LACERA does not have up-to-date written procedures or policies related to a number of issues we discussed above, including bonuses, offsite meetings, wireless device inventory/reconciliation, keycard controls, etc. Our interviews with LACERA management/staff indicated that LACERA may 'selectively' follow the County's policies and procedures (e.g., HR policies), but complying with policies or procedures should not be flexible. Some of the issues we identified may have been prevented if LACERA maintained current and comprehensive organization-wide policies and procedures similar to the County's Fiscal Manual that all County departments are required to follow.

Recommendation

- 26. LACERA Boards/management consider developing organization-wide policies and procedures inclusive of all administrative functions/duties and periodically review and update policies and procedures.**

Other Matters

As part of assessing processes and controls over administrative accounts, we interviewed over 25 LACERA key personnel and Board members. While this sample was limited and not intended to be representative of LACERA as a whole, several interviewees voluntarily

reported an environment of excessive spending, entitlement, favoritism, and fear of retaliation and indicated that LACERA's organizational culture should be improved.

Several interviewees indicated they were reluctant to speak with us and preferred to meet offsite because they feared retaliation. The interviewees believed they were constantly being monitored with security cameras, or their e-mails and phone lines were inappropriately accessed, and meeting rooms were not secure. Although we did not attempt to verify their retaliation claims, the fact that several management/staff requested offsite meetings appears to support interviewees' concerns that the fear of retaliation exists.

Several interviewees also indicated that LACERA's fraud hotline is not working as intended and callers' confidentiality may not be protected. Although we also did not attempt to verify those claims, IA management indicated the hotline received only one complaint over a six-month period. However, given that we received several requests for an offsite meeting during our review, one call over a six-month period appears to support the interviewees' concerns that they do not trust the hotline process. LACERA management indicated they are aware of this perception of caller confidentiality not being protected and is in the process of contracting with an independent vendor to operate the hotline and ensure anonymity.

In addition, Board members have served LACERA for up to 18 years and some interviewees reported that certain members may have developed close personal relationships with management and staff. Multiple interviewees reported favoritism between certain Board members and management/staff. Interviewees indicated that the favored management/staff have increased access to confidential information and promotional opportunities. While we did not attempt to verify interviewees' claims, we did note that in 2019, the Board downgraded the minimum requirement for the CEO so that the position no longer required a bachelor's degree. Some interviewees believe the requirement was downgraded so that Board members would be able to select a favorite manager who did not have a bachelor's degree.

During our review, LACERA management informed us that in July 2019 they started the RFP process for hiring a consultant to review their work culture. LACERA management should consider sharing our report with the consultant to ensure that the consultant becomes aware of some of the issues (e.g., perceived e-mail confidentiality) we discussed above that may impact the consultant's review.

Recommendations

- 27. LACERA Boards/management consider sharing our report with the proposed contractor prior to the engagement to review LACERA's work culture.**
- 28. LACERA Boards explore term limits for Board members.**



November 8, 2019

Arlene Barrera, CPA
Auditor-Controller
Los Angeles County
Kenneth Hahn Hall of Administration
500 West Temple Street, Room 525
Los Angeles, California 90012
abarrera@auditor.lacounty.gov

Dear Ms. Barrera:

Thank you for providing LACERA with the opportunity to read the report on your office's review of our organization. This letter and its attachment constitute LACERA staff's comments, and, like the report itself, they have not yet been reviewed by the Board of Retirement and Board of Investments.

Government Code Section 31593 permits the County to audit "the accounts of the retirement system." While we believe the review went beyond this scope by addressing non-financial issues, LACERA is a transparent organization and cooperated fully and openly with the County review team within applicable law. After many weeks of work, the County report identifies subjects that already have been and continue to be considered by LACERA's Boards and/or staff. Importantly, the review findings do not dispute that LACERA is effective in serving its members and managing the organization to provide the promised benefits in a timely manner.

It is significant that, before the County review began, LACERA had identified for review and evaluation each of the subject areas addressed in the report as part of LACERA's ongoing program of self-evaluation and process improvement. LACERA voluntarily identified these subjects, among others, to the County review team at the beginning of their work as matters already under current internal consideration.

LACERA is an independent public agency from the County. While LACERA does not agree with many of the specific findings (and it is not possible to address all of them in these responses), LACERA will evaluate the report as the organization continues to update its processes and policies. LACERA always strives to align fund administration with the best interests of its members. The County report will be shared with the Board of Retirement and management as a priority matter for consideration; the report will also be provided to the Board of Investments.

In addition, effective November 16, 2019, the LACERA Boards appointed a new Chief Executive Officer, Santos H. Kreimann, who brings almost 30 years of experience with the County of Los Angeles in positions of responsibility in the County Chief Executive Officer's Office, the Assessor's Office, the Beaches & Harbors Department, and other parts of County government. Mr. Kreimann provides management expertise, and a track record of success, in budgeting, strategic planning, human resources, information

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technology (IT) systems, and other administrative functions that directly relate to many of the review findings. Mr. Kreimann will apply his knowledge and expertise in reviewing the County report and evaluating LACERA's processes to implement further checks and balances as needed.

LACERA provides additional comments in the attachment with respect to each subject category in the County report.

LACERA requests that this letter and its attachment be included as part of the final report.

Very truly yours,



Steven P. Rice
Chief Counsel

Attachment

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LACERA'S RESPONSE TO SPECIFIC COUNTY RECOMMENDATIONS

Budget and Expenditures – County Recommendations

LACERA Boards/management consider:

- 1. Analyzing LACERA's administrative costs, evaluating other public employee retirement agencies' administrative costs, and adopting best practices to be more cost efficient.**
- 2. Implementing processes to ensure expenditures are reported in units/divisions where they are incurred.**

LACERA's Response: LACERA's strategic planning and budgeting process takes into account the unique needs of LACERA as one of the largest retirement systems in the country, serving over 170,000 members. As the County's review found, LACERA's budget and expenses are well within the statutory limit, and the percentage increase of LACERA's expenditures is within the range of other public pension systems. LACERA also routinely reviews the accounts to which expenditures are allocated; this is a normal part of LACERA's process.

Each year, LACERA's proposed budget is reviewed by the Boards at multiple public budget hearings and other meetings. The proposed budget is publicly available to all stakeholders and open to comment each year before the budget is approved. This process ensures transparency. In the current 2019-2020 budget process, as in prior years, the Boards actively discussed the budget before it was approved, in the diligent performance of their fiduciary duty, and provided staff with specific input and direction for the current budget and future budget cycles.

In the Joint Organizational Governance Committee (JOGC) Charter approved in May 2019, the LACERA Boards directed that, in the future, staff prepare a three-year strategic planning and annual budgeting process for JOGC approval to guide the Boards' consideration of these issues. This process will be utilized in the 2020-2021 budget cycle and thereafter, and will further enhance LACERA's already solid financial management. LACERA's new CEO has expertise in budgeting and expense management, and will separately review existing processes to ensure LACERA is providing the best possible service to the members.

LACERA will present the County report findings and recommendation nos. 1-2 to the Boards and management.

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Spending Practices – County Recommendation

3. **LACERA Boards/management consider re-examining its administrative spending and issue a memo to all LACERA Board members and staff to reinforce the organization's commitment to upholding their fiduciary obligation.**

LACERA's Response: LACERA's spending is based on a commitment to the organization's fiduciary duty and is reinforced to staff by management on a regular basis. Spending is pursuant to the sound budget process described above. The four spending categories listed in this section were identified to the County review team by LACERA as matters already under current consideration by LACERA. LACERA will present the County report findings and recommendation no. 3 to the Boards and management.

Offsite Board Meetings/Retreats – County Recommendations

LACERA Boards/management consider:

4. **Evaluating benefits and costs of Board and management offsite meetings/retreats and implementing changes to reduce associated costs.**
5. **Adopting similar offsite meeting/retreat policies as the County.**

LACERA's Response: Board and staff offsites are a prudent and common practice to permit trustees and staff to provide an extended opportunity, not possible during regular Board meetings, to discuss strategic issues in detail, receive extensive updates from staff on initiatives and plans, and hear from outside experts within a focused environment that facilitates discussion among trustees in the exercise of their fiduciary duty. Board members do not maintain offices at LACERA, and therefore offsites are a practical and efficient method of providing for interaction and discussion between Board members and staff. For these reasons, LACERA's offsites have great fiduciary value to the organization, which outweighs the cost of the events.

Historically, LACERA held one three-day offsite for both the Board of Retirement and Board of Investments. However, in recent years, to enhance the opportunity for Board members to have the positive experience described above, the schedule was changed to provide separate two-day offsites for each Board to focus on matters within their different areas of interest. This decision has proved successful in improving the value of the offsites.

LACERA will present the County report findings and recommendation nos. 4-5 to the Boards and management.

Bonus Monitoring and Oversight – County Recommendations

LACERA Boards/management consider:

- 6. Establishing written policies/procedures to ensure that bonuses are implemented timely and adequately documented, and to periodically review all bonuses to ensure continued eligibility.**
- 7. Developing bonus reports to improve bonus monitoring and oversight.**
- 8. Reviewing all bonuses, cancel bonuses that are no longer applicable, and seek recovery for any overpayments.**
- 9. Working with the County of Los Angeles Chief Executive Office to ensure budgeted positions align with job assignments.**

LACERA's Response: The bonuses referenced in the retroactive bonuses section were supported with appropriate documentation detailing the reason for the bonuses before the bonuses were approved. Human Resources also performed case analysis to support the bonuses prior to approval.

Bonuses were identified by LACERA to the County review team as a matter already under current consideration by the organization. In June 2019, the LACERA Executive Office instituted a practice of limiting Additional Responsibility (AR) bonus requests, when granted, to six months, and placing all ARs on a six-month review cycle, with renewed justification required for extension. Additional information on bonuses is also now requested to support AR requests before Executive Office approval. LACERA's existing practice also includes recovery of bonus overpayments. Human Resources is developing a written Bonus Review and Approval Policy.

LACERA will present the County report findings and recommendation nos. 6-9 to the Boards and management.

Wireless Devices and Equipment Management – County Recommendations

LACERA Boards/management consider:

- 10. Implementing procedures to periodically reconcile wireless devices, assigned users, and wireless bills.**
- 11. Implementing procedures to periodically inventory all equipment, investigate any missing items, and maintain documentation.**
- 12. Identifying all equipment assigned to Board members and staff, evaluate reasonableness, and establish policies and procedures related to equipment**

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assignments, specifying the equipment type and quantity allowed per Board member/staff.

LACERA's Response: LACERA's periodically reviews its wireless device assignments against wireless bills. An inventory of equipment and devices assigned to Board members and staff is currently in progress as part of a larger organizational inventory; the inventory is reconciled and discrepancies investigated. LACERA will present the County report findings and recommendation nos. 10-12 to the Boards and management.

Travel/Training – Travel Policy – County Recommendations

LACERA Boards/management consider:

- 13. Revising the Travel Policy to ensure it is clear, well-defined, and includes cost control measures such as:**
 - a) More stringent requirements on pre-approval, lodging costs, incidental costs, and the use of business class.**
 - b) Requiring travelers to obtain the lowest overall price amongst major carriers.**
 - c) Prohibiting per diem reimbursements when meals are provided by the hotel/conference or during a flight**
- 14. Implementing an in-house centralized travel process, or contract with an independent vendor to provide travel related services.**

LACERA's Response: Education is necessary to enable Board members and staff to perform their fiduciary duties. In June 2019, LACERA's Internal Audit Division issued a report stating the results of a regular periodic audit of Board member and staff education and travel, pursuant to LACERA's Education and Travel Policy and best practices. In August 2019, the Boards substantially revised and improved the Education and Travel Policy. It was stated in connection with the recent revisions that the Boards would further review the policy, including the recommendations of the internal audit report, at upcoming meetings. In addition, in August 2019, the Board of Retirement authorized an external review of travel expenses and practices, including the policy; the external review is in progress. LACERA will present the County report findings and recommendation nos. 13-14 to the Boards and management.

Travel/Training – Training Policy – County Recommendations

LACERA Boards/management consider:

- 15. Requiring conference/meeting attendees to submit proof of attendance, report back on conference/meeting, and seek reimbursement for any meeting or travel costs if attendance is not supported or documented.**

16. **Revising the Education and Travel Policy to ensure that the number of educational conferences reported accurately reflects the number of educational conferences attended and provide clear guidelines for the number and cost of administrative meetings.**
17. **Establishing a policy to promote cost-effective training (in-house, local, web-based) whenever possible and practical.**
18. **Developing organizational and/or individual training/education goals and develop a process to periodically evaluate and update progress towards the goals.**

LACERA's Response: Training is addressed in LACERA's Education and Travel Policy. The response from the preceding section also applies here. LACERA will present the County report findings and recommendation nos. 15-18 to the Boards and management.

Technology Efficiency – County Recommendation

19. **LACERA Boards/management consider working with divisions to determine technology needs, strategically evaluate and prioritize competing needs, and periodically re-assess and update the status of technology projects.**

LACERA's Response: Technology needs are strategically evaluated, organization-wide and on a division-by-division basis, during the annual strategic planning and budgeting process. In addition, technology needs are considered on a continuous basis, and improvements are underway. LACERA identified technology to the County review team as a subject matter already under consideration. LACERA will present the County report findings and recommendation no. 19 to the Boards and management.

Systems Division – Staffing and Vacancies – County Recommendations

LACERA Boards/management consider:

20. **Implementing procedures to ensure examinations provide an equal opportunity to all qualified applicants and do not provide an unfair advantage to pre-selected candidates.**
21. **Ensuring that Systems Division and Human Resources Division work together to develop a plan for outreach and recruitment.**

LACERA's Response: LACERA managers initiate the hiring and recruiting process based on their individual assessment of needs for that division. Once initiated the Human Resources Division works with the management team to effect the recruitment in a successful manner. This subject was identified by LACERA to

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the County review team as a matter already under current consideration. Human Resources is available to work with any division to conduct recruitments as needed. LACERA will present the County report findings and recommendation nos. 20-21 to the Boards and management.

Systems Division – Job Assignments and Separation of Duties – County Recommendation

22. LACERA management consider establishing a process to periodically complete a documented review of Systems Division's applications and system access roles to ensure that roles are appropriate, and duties are adequately separated.

- **If duties cannot be sufficiently separated, consider implementing alternative controls, including staff rotation, and evaluate and document the Boards' and executive management's risk appetite.**

LACERA's Response: The Systems Division, in conjunction with other divisions, appropriately separates duties. LACERA's systems, finances, and processes are secure; data and information security is a top priority of the organization. Financial integrity is also critical. Members and the public can have confidence that LACERA information and finances are secure and well-managed. LACERA's Internal Audit Division periodically conducts audits of the Systems Division and the processes under the System Division's oversight, as well as the processes of other divisions. LACERA will present the County report findings and recommendation no. 22 to the Boards and management.

Systems Division – Independent Information Technology Review – County Recommendation

23. LACERA management consider obtaining an independent consultant to draft a Request-for-Proposal including Statement of Work and complete an independent information technology review that includes:

- a) **IT resources and efficiency, including work-related applications**
- b) **Operational efficiency and appropriate job functions.**
- c) **IT staffing assessment.**
- d) **Span of control and separation of duties.**

LACERA's Response: LACERA will present the County report findings and recommendation no. 23 to the Boards and management.

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120-Day Temporary Assignments – County Recommendation

- 24. LACERA management consider developing transition plans for 120-day temporary employees and implement a process to periodically review and update transition plans as needed.**

LACERA's Response: LACERA identified this issue to the County review team as a matter already under current consideration. Human Resources is developing a written 120-day employee transition policy. LACERA will present the County report findings and recommendation no. 24 to the Boards and management.

Keycard Access – County Recommendation

- 25. LACERA management consider developing processes to periodically reconcile keycard access and remove or update access when it is no longer needed or appropriate.**

LACERA's Response: Access to non-public areas of LACERA's offices are secure. LACERA will present the County report findings and recommendation no. 25 to the Boards and management.

Policies and Procedures – County Recommendation

- 26. LACERA Boards/management consider developing organization-wide policies and procedures inclusive of all administrative functions/duties and periodically review and update policies and procedures.**

LACERA's Response: LACERA has existing policies, procedures, and processes regarding the development of policies and procedures, including a compliance oversight committee, divisional responsibilities, and presentations to the Board of Retirement. LACERA does not "selectively" follow County HR policies. LACERA generally follows County HR policies unless we have developed our own policy. LACERA will present the County report findings and recommendation no. 26 to the Boards and management.

Organizational Culture – County Recommendations

- 27. LACERA Boards/management consider sharing our report with the proposed contractor prior to the engagement to review LACERA's work culture.**
- 28. LACERA Boards explore term limits for Board members.**

LACERA's Response: LACERA has a positive, forward-looking culture among its more than 400 employees, all of whom are dedicated on a daily basis to fulfilling the organization's fiduciary duty and mission to produce, protect, and provide the promised benefits to members. LACERA leadership, including the Boards and

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management, supports and nurtures that positive culture. LACERA recognizes that there is always room to improve, and building upon the existing good culture is an organizational focus. The County review findings recognize LACERA's planned retention of an employee engagement consultant as a current activity to further enhance culture. As acknowledged in this report, the review team just spoke to "over 25" employees and Board members (only two of whom were in fact trustees), which the review team notes is a "limited" sample, "and not intended to be representative of LACERA as a whole;" only "several" of this small group of interviewees reported the alleged culture issues. By contrast, LACERA management has spoken to all employees in numerous settings, both recently and over time, to build a culture of good communication, inclusion, and teamwork; management has also recently spoken to over 190 employees in small groups averaging 5-10 staff members. LACERA's positive culture was apparent in these meetings. LACERA does not agree that the statements in the County's report about LACERA culture accurately reflect the positive state of the organization and its staff.

With regard to alleged monitoring of emails, LACERA has caused this issue to be independently investigated and found no evidence to support the allegation based on available administrative logs.

LACERA implemented a new, anonymous Fraud and Ethics hotline managed for confidentiality by a third-party vendor. The new hotline was initiated by Internal Audit. LACERA policies affirmatively encourage employees to report misconduct and concerns of all kinds.

As to the statement regarding favoritism in connection with the CEO recruitment, Mr. Kreimann, the newly appointed CEO, has a bachelor's degree, as did his predecessor. Both Mr. Kreimann and his predecessor were from outside LACERA. The CEO recruiting standards were at no time downgraded.

Terms limits are not provided in governing California law for county pension trustees.

LACERA will present the County report findings and recommendation nos. 27-28 to the Boards and management.

November 22, 2019

TO: 2019 Audit Committee
Gina Sanchez, Chair
Herman Santos, Secretary
Alan Bernstein
Shawn Kehoe
Ronald Okum
Les Robbins

Audit Committee Consultant
Rick Wentzel

FROM: Richard Bendall 
Chief Audit Executive

FOR: December 5, 2019 Audit Committee Meeting

SUBJECT: **Audit Plan Status Report**

On behalf of the Internal Audit team, I am pleased to submit the Internal Audit Work-In-Progress Report (Report) for the period of July 1, 2019 to November 25, 2019. This Report provides information on the FYE 2020 Audit Plan, the assurance, consulting, and administrative projects completed as well as other Internal Audit activities.

The work performed by Internal Audit contributes toward accountability, integrity, and good management practices throughout LACERA's business units.

The FYE 2019 Audit Plan consisted of 41 projects. Eight "unplanned projects" have been added to the plan for a total of the 49 projects. Of the 49 projects currently on the Audit Plan, 26 projects have been initiated during the year with eight completed and 18 in various stages of progress toward completion.

The attached report contains the status on all projects undertaken this fiscal year including the objective of the project, the rationale for the work, and a brief synopsis on the "progress" or "conclusion" of each project. Any reports issued during the period since your last Audit Committee meeting are provided to your Committee under separate cover.

I would like to thank, the team for all their hard work and the Audit Committee for your continued support of Internal Audit.

INTERNAL AUDIT PLAN FYE 2020

The following table provides a list of the planned Internal Audit projects for the **Fiscal Year Ending 2020**.

PROJECT	STATUS	TYPE	FREQUENCY
MANAGEMENT, GOVERNANCE & COMPLIANCE			Est. Hours: 4000
1. Timecard Review	Completed	Audit	Planned
2. Corporate Credit Card Audit*		Audit	Planned
3. Inventory Process*		Consulting	Planned
4. Contract Management Audit		Audit	Planned
5. Overtime Audit/Employee Additional Comp		Audit	Planned
6. Form 700 Compliance Audit		Audit	Planned
7. Strategic Planning/Budget Process	In Progress	Consulting	Planned
8. Continuous Auditing Program (CAP) - Monthly New Payee Validation (on going) - Over 90 Payees (completed) 960 Rehired Retiree testing (completed)	In Progress	Audit	Ongoing
9. LACERA Fraud & Ethics Hotline	Completed	Admin	Planned
10. Fiduciary Review		Consulting	Planned
11. Privacy Audit Recommendation Coordination	In Progress	Consulting	Ongoing
12. Compliance Committee*	In Progress	Consulting	Ongoing
13. Business Continuity/Disaster Recovery	In Progress	Consulting	Ongoing
14. Strategic Goals Team Participation- LACERA Redesign	In Progress	Consulting	Ongoing
15. Quality Assurance Improvement Program (QAIP)	In Progress	Admin	Annual
16. Risk Assessment – FYE 2021		Admin	Annual
17. Update Internal Audit Operations Guide	In Progress	Admin	Planned
BENEFITS ADMINISTRATION			Est. Hours: 3000
18. Death Legal Process Audit	In Progress	Audit	Planned
19. Benefits' Exception Report Audit	Completed	Audit	Planned
20. Account Settlement Collection Process Audit		Audit	Planned
21. Foreign Payee Audit*	In Progress	Audit	Planned
22. Member Appeal Process Review		Audit	Planned
23. Member Call Center Monitoring Process Review		Audit	Planned
24. Quality Assurance Operations Review		Audit	Planned
25. Member Benefits Calculation Audit		Audit	Planned
26. Member Authentication Process Review	In Progress	Consulting	Planned
INFORMATION SYSTEMS			Est. Hours: 2300
27. External Penetration Testing		Ext. Audit	Planned
28. Database Review*	In Progress	Audit	Planned
29. Project Management Review*		Audit	Planned
30. Cyber SIEM (Security Information & Event Management) Review		Audit	Planned
31. Web Portal Review		Audit	Planned
32. Privilege Access Review*		Audit	Planned
33. Third Party Data Security Review		Audit	Planned
FINANCIAL & INVESTMENT OPERATIONS			Est. Hours: 2700
34. External Financial Audit (Facilitation)	Completed	Ext. Audit	Ongoing
35. THC Real Estate Financial Audits - Oversight	Completed	Ext. Audit	Ongoing
36. Real Estate Advisor Review	In Progress	Ext. Audit	Ongoing
37. Accounts Payables Audit*		Audit	Planned
38. Investment Data Controls Review		Audit	Planned
39. Investments Due Diligence Review		Audit	Planned
40. Actuarial Services - Oversight	In Progress	Consulting	Ongoing
41. Custodial Bank Services		Consulting	Planned
			Total Hours: 12000

INTERNAL AUDIT PLAN FYE 2020 *continued*

The following table provides a list of the unplanned projects added to the Audit Plan for the **Fiscal Year Ending 2020**.

UNPLANNED PROJECTS			
42. Core Benefits Productivity Review	In Progress	Audit	Unplanned
43. Administrative Operations Review – Los Angeles County Auditor-Controller (Facilitation)	Completed	Audit	Unplanned
44. Mobile Device Management**	In Progress	Audit	Unplanned
45. Real Estate Performance Data Consulting	In Progress	Consulting	Unplanned
46. Check Deposit and Safe Keeping	Completed	Consulting	Unplanned
47. Assistance with Public Records Request	Completed	Admin.	Unplanned
48. OPA Contract Study with Benefits and Milliman	In Progress	Consulting	Unplanned
49. Outside Agency OPEB Data Request	In Progress	Admin	Unplanned

Projects highlighted in **blue are audits and Projects that were already included on the Audit Plan, but relate to issues identified from the LA County Audit*

****Projects highlighted in **orange** are audits that were added to the Audit Plan that relate to issues identified from the LA County Audit*

The following provides a more detailed narrative of both the planned and unplanned Internal Audit projects completed or in progress for the period of July 1, 2019 to November 25, 2019. The projects are ordered by Division. Each project detail includes the objective, rationale, and a brief synopsis of the project's status.

ADMINISTRATIVE SERVICES

Business Continuity Planning

DIVISION(S)	ADMINISTRATIVE SERVICES	REPORT DATE	NA
OBJECTIVE	Provide consulting to management in the revision & upgrade of LACERA's Business Continuity Plan: 1. Business impact analysis a. processes that are critical and order of importance b. recovery time, and recovery point objectives 2. Develop crisis management plan roles and responsibilities		
RATIONALE	The Business Continuity Plan (BCP) is critical to the continuation of LACERA in the event of a disaster. Rather than perform an audit of the current plan, Internal Audit determined together with the Executive Office and Administrative Services Management that it would be more appropriate to engage a consultant to evaluate and possibly upgrade the BCP. This will include improving board and Management awareness of the plan as well as training LACERA staff on the plan and its deployment.		
STATUS	<u>IN PROGRESS:</u> Division business impact analysis studies have been completed along with identification and tasking resolution of process gaps. This initial phase of the BCP project is nearly complete. The purchased software has been upgraded and is now being maintained by the Administrative Services Division BCP team. The next, and final, major deliverable component of the BCP project is a vendor facilitated 3-hour incident tabletop exercise with the LACERA Incident Response Team.		

Strategic Plan – Budget Process

DIVISION(S)	ADMINISTRATIVE SERVICES	REPORT DATE	TBD
OBJECTIVE	To perform a detailed review of Strategic Planning in relation to budget planning and development.		
RATIONALE	To perform an analysis of the historical budget, budget planning and development process, and determine whether the process can be enhanced.		
STATUS	<u>IN PROGRESS:</u> Internal Audit has begun the preliminary work to gain a better understanding of the current budget process.		

ADMINISTRATIVE SERVICES *continued***Check Deposit and Safe Keeping Review – *Unplanned Project***

DIVISION(S)	ADMINISTRATIVE SERVICES	REPORT DATE	N/A
JUSTIFICATION	The Executive Office requested that Internal Audit perform consulting services for the Document Processing Center unit within the Administrative Services Division regarding the current check deposit and safe keeping process.		
OBJECTIVE	To advise on the current check deposit and safe keeping process and determine whether appropriate controls are in place for the receipt and deposit of incoming checks.		
RATIONALE	To evaluate the current check deposit and safe keeping process and provide assistance on strengthening the internal controls within the process		
STATUS	<u>COMPLETED</u> Internal Audit worked with several divisions (Admin Services, FASD, Legal, and Investment Office) to understand the roles and responsibilities of each party as well as formalize the check deposit and safe keeping process.		

BENEFITS**Benefits' Exception Report Review Process**

DIVISION(S)	BENEFITS	REPORT DATE	NOV 22, 2019
OBJECTIVE	The audit objectives were to assess the adequacy and effectiveness of the controls for the Benefits' Exception Report Review process.		
RATIONALE	This area has not previously been reviewed by Internal Audit and was included in the audit plan for fiscal year 2018-19. It is important for Benefits to use the exceptions reports effectively and timely, to ensure members accounts and payments are accurate.		
STATUS	<u>COMPLETED:</u> Internal Audit concluded fieldwork and issued the audit report on November 22, 2019 We determined operational procedures were adequate to provide reasonable assurance that exception reports potentially affecting the on-time payment of a retired member's benefits payment were appropriately reviewed and resolved. However, we did note a few specific control weaknesses that required improvement, which we noted in our audit report.		

BENEFITS *continued***OPA Contract Study – *Unplanned Project***

DIVISION(S)	BENEFITS	REPORT DATE	TBD
JUSTIFICATION	Benefits Division requested Internal Audit's assistance in reviewing the additional retirement cost associated with the selection of retirement dates for OPA Contracts.		
OBJECTIVE	The objectives of the analysis was to determine the financial impact of the additional retirement costs to the fund when allowing members to choose an estimated retirement date. Internal Audit requested Milliman perform an analysis of the historical service purchase contracts for the last 25 years and determine the net effect of allowing members to supply their own retirement date.		
RATIONALE	Internal Audit had previously identified this area as a possible risk based on feedback from the Benefits Division of members possibly choosing a later retirement date than intended to lower the overall cost of the service purchase contract.		
STATUS	<u>IN PROGRESS:</u> LACERA is currently in the process to seeking Board of Retirement and Board of Supervisor approval to modify the Regulations and replace the member provided retirement date with an actuarially determined uniform retirement date to mitigate the additional costs to the fund. We anticipate this project will be completed in Feb 2020.		

Core Benefits Productivity Review – *Unplanned Project*

DIVISION(S)	BENEFITS	REPORT DATE	TBD
JUSTIFICATION	The Executive Office requested that Internal Audit perform a limited scope review of productivity in the Core Benefits Unit.		
OBJECTIVE	To determine whether productivity in the Core Benefits Unit declined in comparison to productivity during the QA training period. Also, to determine whether productivity has declined over a longer period of time with the Core Benefits Unit.		
RATIONALE	To determine where training, supervision, and systems tools can be strengthened to ensure productivity can be measured and enhanced.		
STATUS	<u>IN PROGRESS:</u> Internal Audit has concluded the fieldwork portion of the review and is currently drafting a report. We anticipate issuing the report by March 31, 2020.		

BENEFITS *continued***Death Legal Review Process**

DIVISION(S)	BENEFITS	REPORT DATE	TBD
OBJECTIVE	The audit objectives are to assess the adequacy and effectiveness of the controls for the various processes within Benefits' Death Legal Unit.		
RATIONALE	Benefit's Death Legal Unit (DLU) processes all benefits payments that occur as a result of a member's death. These benefits include, but are not limited to, survivor benefits, minor survivor benefits, and legal split benefits. The primary risk within the DLU is the payment of a benefit to an ineligible individual, or the payment of a benefit in the incorrect amount. Any error in eligibility or payment amount may result in overpayments or underpayments.		
STATUS	<u>IN PROGRESS:</u> Internal Audit has initiated the planning phase for this audit. We anticipate the audit will be completed by December 30, 2019.		

EXECUTIVE OFFICE**Administrative Operations Review by Los Angeles County Auditor Controller - *Unplanned Project***

DIVISION(S)	EXECUTIVE OFFICE	REPORT DATE	Nov 8, 2019
JUSTIFICATION	Los Angeles County Board of Supervisors instructed the County Auditor – Controller to conduct an audit of LACERA's processes and controls over administrative operations		
OBJECTIVE	To determine whether LACERA provides adequate stewardship over administrative funds and to evaluate whether additional targeted reviews by Los Angeles County (LAC) Auditor – Controller would be beneficial.		
RATIONALE	On July 30, 2019, the LAC Board of Supervisors instructed the LAC Auditor – Controller to conduct an audit of LACERA's processes and controls over administrative operations, including, but not limited to, an analysis of LACERA's cost / budget increases, travel and training expenditures, and overall administrative expenses compared to other public employee retirement agencies.		
STATUS	<u>COMPLETED:</u> The LAC Auditor – Controller completed its fieldwork and issued its report on November 8, 2019. The report included recommendations for LACERA to strengthen processes and controls over their administrative operations and update Board-approved policies. Management will address all administrative operations recommendations by March 2020. The Boards will wait to further update the Education and Travel policy until after an additional external Education and Travel audit is completed in early 2020.		

EXECUTIVE OFFICE *continued***Compliance Committee**

DIVISION(S)	EXECUTIVE OFFICE	REPORT DATE	N/A
OBJECTIVE	Provide consulting to the Executive Office via participation in the Compliance Committee. The committee is tasked with the development of a framework for a formal compliance program at LACERA.		
RATIONALE	Internal Audit has been requested by the Executive Office to assist with the development of a framework managements system of compliance. As part of the updates to the Audit Committee Charter, the Audit Committee will have responsibility for monitoring managements system of compliance.		
STATUS	<u>IN PROGRESS:</u> Internal Audit is continuing to meet and consult with Management and participate with the Compliance Committee on the development of the formal compliance program. Much of the work has involved the development and adoption of formal charters, policies and procedures. Formalization of the compliance framework is pending the hiring of a Compliance Officer in the Legal Office.		

Public Records Request - *Unplanned Project*

DIVISION(S)	EXECUTIVE OFFICE	REPORT DATE	N/A
JUSTIFICATION	The Executive Office periodically requests Internal Audit's assistance in completing Public Records Requests (PRAs) that relate to Internal Audit projects and audits.		
OBJECTIVE	Assist the Executive Office and Legal in compiling documents for PRAs.		
RATIONALE	Internal Audit provides this assistance to ensure that accurate and appropriate documents are provided for PRAs.		
STATUS	<u>COMPLETED:</u> The Public Records Request in its current form has been completed. There is a possibility that additional requests will be made. If so, we will address them accordingly.		

EXECUTIVE OFFICE *continued***Strategic Goals Team Participation**

DIVISION(S)	EXECUTIVE OFFICE	REPORT DATE	N/A
OBJECTIVE	Staff participates in cross-functional teams (formed in FY 2019) to assist in the completion of organization strategic goals.		
RATIONALE	The Executive Office requested representation from all divisions to participate in the cross-functional teams. The teams were formed to ensure input from key divisions on the development of controls, processes and procedures, and foster collaboration throughout the organization in achieving goals.		
STATUS	<u>IN PROGRESS:</u> Currently staff is participating in the cross-functional team responsible for redesigning the LACERA website. The website is planned for completion by end of FY 2020.		

FINANCIAL AND ACCOUNTING SERVICES**External Financial Audit FYE 2019**

DIVISION(S)	FASD	MEMO DATE	OCT 11, 2019
OBJECTIVE	Facilitate LACERA's annual external financial statement audit for Fiscal Year Ended June 30, 2019.		
RATIONALE	External auditors require assistance with coordinating meetings with the Divisions, collecting data, assisting with documentation exchanges, and ensuring timely responsiveness from LACERA management and staff to complete their work within the determined timeframe.		
STATUS	<u>COMPLETED</u> Plante Moran completed its final fieldwork and issued its timely 1) opinion of LACERA's 2019 financial statements, and 2) "Management Letters" to LACERA. Plante Moran will formally present the results of its work during the December 5, 2019 Audit Committee meeting. LACERA will issue the 2019 CAFR by January 31, 2020.		

HUMAN RESOURCES

Timekeeping Audit

DIVISION(S)	EXECUTIVE OFFICE	REPORT DATE	Nov 22, 2019
OBJECTIVE	Review organization-wide timekeeping controls to assess the accuracy of time reported and effectiveness of internal controls.		
RATIONALE	Internal Audit performed a review of LACERA's current Timecard process. This audit project was in progress and rolled over from the fiscal year 2018-2019 audit plan.		
STATUS	COMPLETED: Internal Audit concluded fieldwork and issued the audit report on November 22, 2019 Internal Audit determined the timekeeping process is operating effectively with support by the Human Resources Division. Internal Audit identified several areas where HR could improve their oversight and the controls around timekeeping, which we noted in our audit report. Management agreed with all the recommendations and has begun implementing or developing management action plans to address the recommendations.		

INTERNAL AUDIT

Microsoft Access Database Review

DIVISION(S)	MULTIPLE	REPORT DATE	TBD
OBJECTIVES	- Determine to what extent Microsoft Access applications and databases developed outside of Systems Division oversight have become significant to LACERA business operations or critical to processing member benefits transactions - Assess controls that ensure minimal disruption in case of application or database failure - Assess controls that ensure access to applications and data is appropriately restricted - Assess compliance with IT Security Governance and Best Practices		
RATIONALE	Over the years, some LACERA Division staff have developed Microsoft Access database applications to manage specific operational needs. Recently Division management indicated that some of these applications or databases have become corrupted and inoperable, and manual workarounds had to be implemented.		
STATUS	IN PROGRESS: Preliminary surveys and cataloging of all MS Access databases on LACERA's network has been completed. In depth interviews with database owners, validation testing and analysis is scheduled to occur during November with project completion targeted for December 31, 2019.		

INTERNAL AUDIT *continued***LACERA Fraud Hotline**

DIVISION(S)	INTERNAL AUDIT	REPORT DATE	N/A
OBJECTIVE	To update the Internal Audit Ethics Hotline to incorporate best practices into the process.		
RATIONALE	Staff completed an assessment of the ethics hotline in Fiscal Year 2018/19. Rather than rebrand the current ethics hotline, staff decided to use an external provider for the added anonymity and security that it provides. Staff received proposals from three providers and selected NAVEX Global's EthicsPoint after reviewing demonstrations from all three, and determining that EthicsPoint best met LACERA's requirements.		
STATUS	COMPLETED: Internal Audit presented to the BOR on November 6, 2019. The new ethics hotline and web intake is active. The estimated launch date is December 9, 2019.		

Real Estate Advisor Audits

DIVISION(S)	INTERNAL AUDIT	MEMO DATE	N/A
OBJECTIVE	Internal Audit issued an RFP to hire a pool of consultants to perform audits of LACERA's Real Estate Advisors and LACERA's Real Estate Debt Program. At the conclusion of the RFP process, four firms were selected for the audit pool. The firms will conduct Advisor Compliance Audits, Property Management Reviews and Debt Program Reviews on an as-needed basis.		
RATIONALE	Internal Audit intends to use consultants on an as-needed basis to ensure appropriate resources are available to complete audits and projects included in the Audit Plan.		
PROGRESS	IN PROGRESS: In April 2019, the firms KPM and Conrad conducted audits of Stockbridge and Capri. There were no significant findings. The next round of audits will begin in early 2020.		

Internal Audit Operations Guide - Update

DIVISION(S)	INTERNAL AUDIT	REPORT DATE	N/A
OBJECTIVE	Internal Audit's Operation Guide was established to provide guidance to Internal Audit staff. Guidelines are presented in the form of policies and procedures and incorporates the International Standards for the Professional Practices of Internal Auditing. During this fiscal year, we will review the current Operation Guide and make appropriate updates.		
RATIONALE	The manual is considered a living document, and therefore, is updated periodically to ensure that it represents the latest standards and practices, and the policies and procedures that govern the conduct of internal auditing.		
STATUS	IN PROGRESS: Anticipated completion of updates is March 2020.		

INVESTMENTS

Real Estate Advisor Audits

DIVISION(S)	INTERNAL AUDIT	MEMO DATE	N/A
OBJECTIVE	Internal Audit issued an RFP to hire a pool of consultants to perform audits of LACERA's Real Estate Advisors and LACERA's Real Estate Debt Program. At the conclusion of the RFP process, four firms were selected for the audit pool. The firms will conduct Advisor Compliance Audits, Property Management Reviews and Debt Program Reviews on an as-needed basis.		
RATIONALE	Internal Audit intends to use consultants on an as-needed basis to ensure appropriate resources are available to complete audits and projects included in the Audit Plan.		
PROGRESS	<u>IN PROGRESS:</u> In April 2019, the firms KPM and Conrad conducted audits of Stockbridge and Capri. There were no significant findings. The next round of audits will begin in early 2020.		

Real Estate Performance Data Consulting Project – *Unplanned Project*

DIVISION(S)	SYSTEMS	REPORT DATE	TBD
JUSTIFICATION	The Investments Office discovered two real estate managers who reported incorrect performance data to Townsend, LACERA's consultant and book of record.		
OBJECTIVE	To ensure that adequate controls exist when real estate managers transfer performance data into the Townsend reporting system.		
RATIONALE	It is important that performance data captured in the Townsend reporting system is accurate. The Investments Office needs to take corrective action and reassess the business relationships with Townsend and the real estate managers.		
STATUS	<u>IN PROGRESS:</u> The Investments Office notified the Board of Investments and Internal Audit about the two incidents. The Investments Office is reviewing past performance data for prior years for all real estate managers, and has involved Internal Audit in meetings.		

SYSTEMS**User Verification and Authentication Consulting**

DIVISION(S)	VARIOUS	REPORT DATE	N/A
OBJECTIVE	Consulting and coordination via participation in the User Verification and Authentication Committee. The committee is tasked with the re-design of the member portal verification and authentication process and is seeking consulting services from industry experts. The engagement will involve: 1. A review of our current member verification and authentication process 2. Guidance on current and best practices for a new process 3. Periodic follow up consulting to ensure that our process is updated as technology advances and best practices change.		
RATIONALE	Internal Audit has been requested to assist in seeking consulting services for determining an Identity Proofing and Authentication approach that is best suited for LACERA members accessing the Call Center and online Member Portal in order to ensure that members are validated and identified with assurance prior to being given access to member data.		
STATUS	<u>IN PROGRESS:</u> Internal Audit is participating in the User Verification and Authentication committee. A User Verification and Authentication consulting services vendor has been selected. The Master Services Agreement and Statement of Work agreement have been signed. We anticipate project completion by June 30, 2020.		

Mobile Device Management Audit - *Unplanned Project*

DIVISION(S)	SYSTEMS	REPORT DATE	N/A
JUSTIFICATION	As the result of the Los Angeles County Auditor-Controller's audit report, dated November 8, 2019, Internal Audit added a Mobile Device Management audit to 2019-2020 Audit Plan.		
OBJECTIVE	To determine whether proper policies, procedures, and processes for managing mobile devices (smartphones, laptops, tablets, etc) are in place and functioning as intended.		
RATIONALE	As the organization has begun to issue more mobile devices over the last few years, and more work is done through mobile devices, it is prudent that LACERA has the proper controls in place to ensure the devices are properly managed and secured.		
STATUS	<u>IN PROGRESS:</u> The Entrance Meeting was held on November 20, 2019 with Systems and Internal Audit staff. Fieldwork is expected to be completed by mid-January and a draft report delivered to management by the end of January 2020.		

SYSTEMS *continued***Outside Agency OPEB Data Request - *Unplanned Project***

DIVISION(S)	SYSTEMS	REPORT DATE	N/A
JUSTIFICATION	In October 2017, Los Angeles County requested to change LACERA's Other Post-Employment Benefits (OPEB) plan structure from a multiple employer plan to an agent multiple employer plan beginning with fiscal year 2018-2019 (FY 2019). The County requested this new reporting structure to separate itself from the other employers and more effectively manage their own healthcare costs. AS a result, Outside agency OPEB data is requested for the new reporting format and Internal Audit's assistance was requested.		
OBJECTIVE	The objective of this project is for Internal Audit to assist in obtaining the OPEB data necessary for the new reporting structure.		
RATIONALE	Internal Audit's assistance is necessary to in ensure that the data meets the reporting needs and is provided in a timely manner.		
STATUS	IN PROGRESS: The anticipated completion date is pending receipt of MOU from LA Superior Court to send the date. Anticipated completion date is December 2019		

The following are Internal Audit projects for the period of July 1, 2019 to November 22, 2019. These recurring projects include testing, monitoring, and consulting assignments performed on an ongoing basis to prevent fraud and ensure compliance throughout LACERA's business units.

BENEFITS**Continuous Auditing Program (CAP) – Over 90 Payees**

DIVISION(S)	BENEFITS
OBJECTIVE	To validate the alive and well status of payees ages 90 and older.
RATIONALE	To test and validate those payees that are most vulnerable to fraud and high risk.
STATUS	COMPLETED: We identified and tested 4,378 payees ages 90 and older to the Social Security Administration database. We verified 4,371 (99.8%) as alive per the database. The remaining 7 (>1%) were forwarded to the Benefits Protection Unit for further analysis A summary report of all CAP projects will be presented to the Audit Committee at the December 5, 2019 meeting.

BENEFITS *continued***Continuous Auditing Program (CAP) - New Payee Validation**

DIVISION(S)	BENEFITS
OBJECTIVE	To assess validity of new payees added to the retirement payroll, Internal Audit performs an independent monthly continuous process test of new service and disability retirees and new survivor payees.
RATIONALE	Internal Audit performs this monthly fraud test due to our independence from the operations.
STATUS	<u>IN PROGRESS:</u> Internal Audit has tested 100 percent of all new benefit payees from July 2019 through October 2019. Internal Audit found no exceptions to the scheduled new benefit payees. This testing will continue on a monthly basis for the duration of fiscal year ending June 30, 2020. A summary report of all CAP projects will be presented to the Audit Committee at the December 5, 2019 meeting.

Continuous Auditing Program (CAP) – 960 Rehired Retirees

DIVISION(S)	BENEFITS
OBJECTIVE	To determine whether all retirees temporarily rehired, were done so in compliance with State and federal laws and LACERA policies.
RATIONALE	Compliance with State law and LACERA policy helps ensure that LACERA retains its “qualified” tax deferred status. As this is a critical risk to LACERA, Internal Audit performs a 100 percent compliance test of all rehired retirees employed by the County each year.
STATUS	<u>COMPLETED:</u> Internal has completed the testing and working on draft memo to the County CEO. We anticipate completing this project and issuing a memo by December 31, 2019

Foreign Payee Validation

DIVISION(S)	BENEFITS
OBJECTIVE	Validate the well-being of payees living outside of the 50 U.S. States.
RATIONALE	LACERA has a robust process for identifying member deaths that occur within the United States. Currently there is no such process, nor a vendor that could facilitate such a process, that would allow LACERA to obtain death records for deaths of members living abroad.
STATUS	<u>IN PROGRESS:</u> Internal Audit in coordination with Benefits’ “Benefit Protection Unit” (BPU) have identified 228 payees living abroad. As of November 1, 2019, we have documented the status for 221 of the 228 members living abroad, and are working to identify the status of the remaining seven. We anticipate completing this project by December 31, 2019.

EXECUTIVE OFFICE**FYE 2019 Actuarial Audit – Oversight**

DIVISION(S)	INTERNAL AUDIT
OBJECTIVE	Facilitate LACERA's ongoing, external, audit of actuarial services.
RATIONALE	External auditors require information data and documentation. Internal Audit advises, directs, assists; with inquiries and timely responsiveness from LACERA staff and management in order to complete their work satisfactorily in a suitable fashion.
STATUS	<u>IN PROGRESS:</u> Internal Audit and the Financial Accounting Services Division conducted entrance meetings for the OPEB Experience Study and Validation Audit, as well as the Pension Triennial Valuation Audit. The actuarial projects are currently in progress. Internal Audit will continue to facilitate any data and/or documentation requests needed by the external auditors.

Privacy Audit Recommendation Monitoring

DIVISION(S)	EXECUTIVE OFFICE
OBJECTIVE	Internal Audit will participate in the cross-functional management oversight team and record the status of the implementation of recommendations in the external Privacy Audit final report.
RATIONALE	Internal Audit has an independent oversight role in validating the implementation of audit recommendations. Due to the attorney-client privilege manner in which the audit was performed and reported to the Audit Committee, Internal Audit performs this role and reports on the status of implementation to your Committee separately.
STATUS	IN PROGRESS: Executive Management has established a cross-functional team to address the implementation of the Privacy Audit recommendations, many of which will simultaneously assist in the formalization of the compliance function at LACERA. The team will coordinate the implementation and the standardization of policies and procedures and the establishment of a compliance framework. The team has identified specific divisions as the primary owners of the Privacy Audit recommendations. Internal Audit as a part of the team is working on those recommendations for which we have primary ownership. Internal Audit also records the status update of all recommendations and we are comfortable that Management is taking the recommendations and the implementation seriously and has developed a good plan and a reasonable timeline in which to do so. We will be reporting the status of the Privacy Audit recommendation follow-up to your Committee at your December 5, 2019 meeting, under separate cover.

INTERNAL AUDIT**Recommendation Follow-up**

DIVISION(S)	INTERNAL AUDIT
OBJECTIVE	In compliance with the Institute of Internal Auditors' <i>International Professional Practices Framework</i> , the Chief Audit Executive must establish and maintain a system to monitor the disposition of audit results communicated to management.
RATIONALE	Internal Audit monitors the implementation status of prior audit recommendations made to LACERA Management to ensure that Management action plans have been effectively implemented or that Senior and Executive Management have accepted the risk of not taking action.
STATUS	<u>IN PROGRESS:</u> The status of all audit recommendation related management action plans are reported to the Audit Committee regularly. The most recent review cycle was completed from July 1, 2019 through October 31, 2019. This project will continue through June 30, 2020.

General Consulting (< 2 hours)

DIVISION(S)	INTERNAL AUDIT
OBJECTIVE	Assist LACERA Management with advice and/or resources.
RATIONALE	Internal Audit provides consulting or additional information on organizational processes, projects, and issues. Any consulting requiring two hours or less of an auditor's time is placed in this category.
STATUS	<u>IN PROGRESS:</u> Internal Audit maintains an open door policy for general consulting purposes. This is ongoing consulting that will conclude June 30, 2020.

Internal Audit Quality Assurance Improvement Program (QAIP)

DIVISION(S)	INTERNAL AUDIT
OBJECTIVE	Internal Audit will maintain a Quality Assurance and Improvement Program as required by the Institute of Internal Auditing (IIA) Standards.
RATIONALE	In our 2015 Quality Assurance Review (QAR), our consultant recommended that LACERA Internal Audit develop a formal QAIP program to be in compliance with IIA standards. Internal Audit, while always implemented some form of the QAIP program, did not have a formalized program that fully complied with standards. Internal Audit believes that a formal QAIP is important with the on-going administration of Internal Audit and will add value to the work performed by staff. Internal Audit developed and implemented a QAIP in Fiscal Year Ended June 30, 2016.
STATUS	<u>IN PROGRESS:</u> Internal Audit is in the progress of completing the QAIP assessment. Anticipated completion is by June 30, 2020.

INVESTMENT OFFICE**THC Financial Audit Oversight**

DIVISION(S)	INVESTMENT OFFICE
OBJECTIVE	The objectives of this project are to hire firms to perform audit and tax services associated with LACERA's wholly owned THC's. Staff will also oversee the THC audits to ensure that audits and financial reports are provided within established guidelines.
RATIONALE	The purpose of the THC audit is to ensure that real estate advisors are providing accurate and appropriate financial reports to LACERA. IA serves as liaison between the audit firms and the key stakeholders: FASD, the Investment Office and the Legal Division to ensure that the audits comply with established procedures and financial reports are provided within established periods.
STATUS	<u>COMPLETED:</u> This is an ongoing project. The financial audits for FYE June 30, 2019 began in May 2019. Final audit reports were issued in September 2019.

November 22, 2019

TO: 2019 Audit Committee
Gina Sanchez, Chair
Herman Santos, Secretary
Alan Bernstein
Shawn Kehoe
Ronald Okum
Les Robbins

Audit Committee Consultant
Rick Wentzel

FROM: Richard Bendall 
Chief Audit Executive

Gabriel Tafoya 
Senior Internal Auditor

FOR: December 5, 2019 Audit Committee Meeting

SUBJECT: **Recommendation Follow-Up Report**

Internal Audit reports to the Audit Committee at each meeting the status of all outstanding audit recommendations - Audit Recommendation Follow-up summary report – **Attachment A**.

Please note, since the August 7, 2019 Audit Committee meeting, at which time there were twenty – nine (29) outstanding audit recommendations:

- Nine (9) added, five (5) in Benefits and four (4) in Human Resources.
 - o Two (2) recommendations were implemented by the Benefits Division.

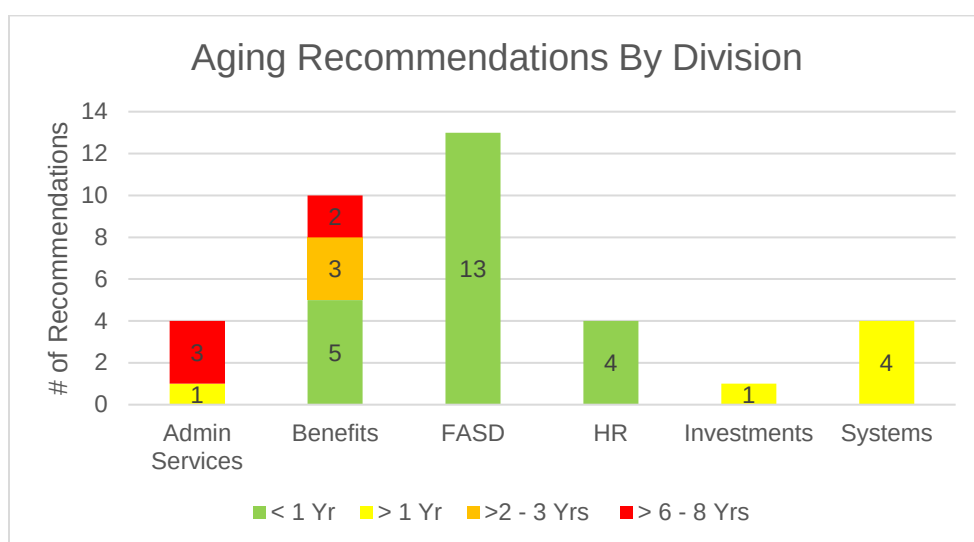
As of the December 5, Audit Committee meeting, there are currently thirty-six (36) recommendations outstanding. A breakdown of outstanding recommendations by Division is represented in the following matrix.

	Admin Services	Benefits	FASD	HR	Investments	Systems
Beginning (27)	4	7	13	0	1	4
New	0	5	0	4	0	0
Implemented	0	2	0	0	0	0
Ending (36)	4	10	13	4	1	4

As you can see from the next chart, while there are some long outstanding recommendations, twenty-two (22) are less than one year old and twenty-eight (28) of the thirty-six outstanding recommendations are less than two years old.

Internal Audit Issues Tracking	Open Findings							
	Total Open	< 1 Year	> 1 Year	> 2 Years	> 3 Years	> 6 Years	> 7 Years	> 8 Years
	36	22	6	2	1	1	1	3

The chart below presents a graphical representation of outstanding recommendations by age in each division.



Internal audit is working with Management toward a goal that all recommendations are implemented within two years and that high-risk recommendations are expedited. While we currently do not rate audit recommendations by risk, we believe that most of the outstanding recommendations at this time are at least a moderate risk and should be addressed in a timely manner.

The three longest outstanding recommendations in Administrative Services related to the Procurement Policy have been substantially completed. The new Procurement Policy was approved by the Board of Retirement earlier this month. Administrative Services is now updating their procedures and communication with other business partners to fully implement these recommendations.

The two longest outstanding recommendations in the Benefits Division require collaboration with the Systems Division and Quality Assurance.

Internal Audit is continuing to offer support to all divisions in addressing their outstanding recommendations. Staff from the respective Divisions will be present at your December 5 meeting to address any questions your committee may have.

IIA Standards

The Institute of Internal Auditors' (IIA) Performance Standard #2500 pertains to monitoring the implementation progress of Internal Audit's recommendations made to Management. The Chief Audit Executive is required to establish and maintain a system to monitor the disposition of Management's corrective results and communicate those results to Executive Management and the Audit Committee.

During the audit process, Internal Audit, as well as external auditors (financial, fiduciary, actuarial, and IT), regularly identify areas where LACERA Management may implement changes to improve risk controls in its processes and Management provides action plans indicating how and when planned improvements will be made. These recommendations and action plans are included in each formal audit report. Additionally, Internal Audit makes recommendations and management identifies improvement plans during Internal Audit consulting assignments. All recommendations and management action plans are documented in Internal Audit's *Recommendation Follow-Up* database.

It is Internal Audit's responsibility to ensure that Management's action plans have been effectively implemented, or in the case of action plans that have yet to be implemented, to ensure that Management remains aware of the risks it has accepted by not taking action. In certain situations, if reported observations and recommendations are significant enough to require immediate action by Management, Internal Audit persistently monitors actions taken by Management until the observed risk is corrected.

It is not the responsibility of the Chief Audit Executive to resolve the risks identified during audit work. However, in accordance with IIA Performance Standard #2600, it is Internal Audit's responsibility to communicate the acceptance of risks when the Chief Audit Executive concludes that Management has accepted a level of risk that may be unacceptable to the organization. As a result of this responsibility, Internal Audit communicates all pending *Management Action Plans* to LACERA's Executive Management and Audit Committee for resolution. In this manner, Internal Audit escalates unsatisfactory responses or lack of Management actions - including the assumption of risk - to the appropriate levels of Executive Management and the Audit Committee.

RB/GT

Attachments

Audit Recommendations Follow Up

Attachment-A

Project Name	Risk Area / Division	Finding	Management Response	Responsible Party(s)	Responsible Division(s)	Original Implementation Date	Current Status
Administrative Services Division							
Purchasing/ Procurement	Administrative Services Division 5/8/2011	Description of Finding: Greater clarity and expansion is needed in LACERA's Purchasing Goods & Services Policy Guidelines and the Purchasing & Contract Administration Manual. The Policy and the Manual are unclear as to 1) what exact level(s) of purchasing approval authority resides with Division Managers, 2) what approval levels are for various portions of contracts, and other specifics discussed with Administrative Services Division. Recommendation: The Administrative Services Division should take action to modify both LACERA's Policy Guidelines and the Manual appropriately for additional precision. The Division should also update and expand the Policy Guidelines and the Manual to include all the procedures, limitations, and controls actually already practiced. Further, the Division should disseminate the updated Policy Guidelines and Manual to all Divisions in LACERA, advising the Divisions as to the changes made.	Original Management Response: The policy guidelines will be reviewed for possible changes by December 30, 2011. Current Status: Administrative Services Management presented an updated Policy for Purchasing Goods & Services to the Operations Oversight Committee on October 2, 2019. The Board of Retirement approved the new Policy at the November 6 meeting of the BOR. Staff is currently revising the Purchasing and Contract Administration Manual according to the revised Policy and will distribute this to all staff. This will be completed by January 31, 2020.	Kimberly Hines, Administrative Services Division	Administrative Services Division	12/31/2011	Pending 1/31/2020
Purchasing/ Procurement	Administrative Services Division 5/8/2011	Description of Finding: The Procurement Unit's daily operating procedures – the “written desk procedures” – need expansion to provide enhanced control procedures. The existing, written procedures do not include a number of controls, a requirement that an existing control be performed, or a requirement that performance of the control be documented. Recommendation: The Purchasing Unit should update and expand its written, daily operating procedures to conform to the final versions of an updated Purchasing Goods & Services Policy Guidelines and Purchasing & Contract Administration Manual. The daily operating procedures should also include all the controls it already practices as well as the missing controls mentioned above; and it should document its execution of all those controls when they are performed, thereby establishing accountability.	Original Management Response: The policy guidelines will be reviewed for possible changes by December 30, 2011. Current Status: Administrative Services Management presented an updated Policy for Purchasing Goods & Services to the Operations Oversight Committee on October 2, 2019. The Board of Retirement approved the new Policy at the November 6 meeting of the BOR. Staff is currently revising the daily operating procedures to conform to the new Policy. This will be completed by January 31, 2020.	Kimberly Hines, Administrative Services Division	Administrative Services Division	12/31/2011	Pending 1/31/2020

Audit Recommendations Follow Up

Purchasing/ Procurement	Administrative Services Division 5/8/2011	Description of Finding: Of the 26 purchase orders selected for detailed review, 17 required that they either be submitted to the bidding process or have documented justification for “sole-sourcing” by the requesting division manager. The required documentation was found in other divisions for 10 of them, and another 4 were evidently sole-sourced as a result of LACERA’s membership in the Western States Contracting Alliance (WSCA). For the remaining 3, no bidding documentation or sole sourcing justification could be found. Details were provided to Administrative Services Division management. Recommendation: The Procurement Unit should periodically promulgate to all other divisions the purchase-cost, bidding requirements and that sole-sourcing requires documented justification by the requesting division manager. The Procurement Unit should include exceptions (such as WSCA purchases) in its written, daily operating procedures. The Procurement Unit should contact FASD and obtain a definitive understanding as to the documentation that will be forwarded to FASD for retention. The Procurement Unit should update and expand its written, daily operating procedures to conform to the final versions of an updated Purchasing Goods & Services Policy Guidelines and Purchasing & Contract Administration Manual.	Original Management Response: The policy guidelines will be reviewed for possible changes by December 30, 2011. Current Status: Administrative Services Management presented an updated Policy for Purchasing Goods & Services to the Operations Oversight Committee on October 2, 2019. The Board of Retirement approved the new Policy at the November 6 meeting of the BOR. Staff is currently revising the Purchasing and Contract Administration Manual and daily operating procedures to address the suggestions in this recommendation and according to the revised Policy. This will be completed by January 31, 2020.	Kimberly Hines, Administrative Services Division	Administrative Services Division	12/31/2011	Pending 1/31/2020
Contract Monitoring Program	Administrative Services Division 6/19/2018	Description of Finding: One area that can be improved is the database management system used to track invoice payments, which is separate from the CMS. The Administrative Services Division uses a Microsoft Access database to monitor the cumulative balances paid to a vendor. These balances are tracked outside of Microsoft Great Plains, LACERA’s accounts payables system. Using Microsoft Access creates additional work, because Administrative Services staff must re-enter information from the invoices into an Access database after the information was already entered by Financial and Accounting Services Division (“FASD”) staff. FASD staff enters invoice information into Microsoft Great Plains in order to pay invoices. Recommendation: Systems Division to work with Administrative Services to integrate Microsoft Great Plains with CMS where practical to minimize redundant work.	Original Management Response: Systems Division agrees with the recommendation and will work with Admin Services to integrate Microsoft Great Plains with CMS where practical to minimize redundant work. The estimated date for implementing this recommendation is October 31, 2018. Current Status: In order for the data correlation to occur, additional data fields must be added into Great Plains. Administrative Services, FASD, and Systems will work together to implement such data points going forward. Administrative Services will also explore alternatives that can mitigate the identified risk. In the meantime Administrative Services will continue to track payments related to contracts to prevent over payments or payments to expired contracts.	Kimberly Hines, Administrative Services Division James Brekk, Systems Division	Administrative Services Division Systems Division	10/31/2018	Pending 12/31/2019

Audit Recommendations Follow Up

Benefits Division								
Claims - Process Objectives, Risks, Controls, Process Flows, and Procedural Gaps	Benefits Division	Description of Finding: Benefit changes to member accounts made by staff (e.g., service credits, OASDI, PIA, member contributions, etc.) during First Payment do not require a secondary review or approval. These changes can significantly impact member benefits. As a best business practice, the duties of authorizing (initiating actions), approving, and processing member benefit transactions into Workspace and IRIS should be assigned in a manner that ensures adequate separation of duties exist. All Benefits staff have access to make these changes in Workspace and IRIS without a secondary electronic approver. First Payment procedures do not require a secondary review. In addition, QA audits only 25% of First Payments. There is a risk that staff may make erroneous or potentially fraudulent changes to member benefits that go undetected, resulting in on-going over or underpayments to the member.	Original Management Response: Benefits management will review the access list and work with Systems to limit access to those staff with a specific business need. However, implementing a secondary electronic approval for changes made to member service credits, OASDI, PIA, contributions, etc. may cause additional bottlenecks during the Agenda and First Payment process. Therefore, Benefits Management will work with Systems to develop reports that identify changes made between the Agenda and First Payment process. Supervisors will be instructed to review these reports before first payments are issued to ensure that all staff changes are legitimate.	Bernie Buenaflor, Benefits Division	Benefits Division	12/31/2012	Pending	
	4/12/2012	Recommendation: Benefits Management should work with Systems to restrict staff access to change member service credits, OASDI, PIA, contributions, etc. unless they have a specific business need. For staff that need access, Benefits Management should (or request Systems to) implement a secondary review or approval procedure when changes are made. If the above recommendations cannot be immediately implemented, Benefits Management should work with Systems to develop a report that identifies these changes and review the report to ensure each change is legitimate.	Current Status: Planned for completion by 12/31/2020.			12/31/2020		
Previous service to contracts (QC/QA/CP)	Benefits Division	Description of Finding: In instances where OPA cases are passed along to other Benefits Division staff (for various reasons), we noted that the Benefits staff person is required to re-create the member's timeline in Workspace even though a timeline was already created by the staff who initially reviewed the member's account, and the member's work history did not change.	Original Management Response: Benefits will work with Quality Assurance to identify ways to 'certify' membership timelines and other work product so that they can be relied upon in completing future transactions for the same members.	Bernie Buenaflor, Benefits Division	Benefits Division	6/30/2014	Pending	
	7/2/2013	Recommendation: When a members account needs to be re-reviewed by staff who did not perform the initial review, Management should evaluate the feasibility of requiring the secondary staff to rely on the initial timeline created. Additionally, Management may want to consider re-designing the process to have designated staff document timelines on the front end of the process before the cases are assigned to staff. Since timelines eventually get reviewed by QC Checkers, there are safeguards in place to help ensure inaccuracies are identified before the cost letters are sent.	Current Status: Planned for completion by 06/30/2020.				6/30/2020	
Member Minor Survivor Compliance	Benefits Division	Description of Finding: We identified three instances where LACERA staff did not obtain one of the required documents prior to paying the minor survivor. Specifically, we noted: Two instances where the minor's account did not have a birth certificate on file. One instance where the minor's account did not have a claim form on file. We also noted that staff did not have desk procedures to determine which documents were required to determine the minor's eligibility.	Original Management Response: The Benefits Division Process Management Group and the Special Benefits Services Section is currently developing the documented procedures and training material to address the recommendation to provide staff additional training, and improve the review and approval process to ensure all required documents for minor survivor payees are valid and on file. Procedures and training materials will be created and implemented by June 30, 2017, approximately.	Bernie Buenaflor, Benefits Division	Benefits Division	6/30/2017	Pending	
	6/29/2016	Recommendation: We recommend that the Benefits Division develop a procedural manual, provide staff additional training, and improve the review and approval process to ensure all required documents for minor survivor payees are valid and on file prior to payments being initiated.	Current Status: Planned for completion by 6/30/2020.				6/30/2020	

Audit Recommendations Follow Up

Duplicate Member Payments	Benefits Division 1/19/2017	Description of Finding: To enhance the efficiency and effectiveness of the special payment approval process, we recommend that the Benefits Division work with the Systems Division to automate the remaining special payments processes that are currently approved manually. We also recommend that the Benefits and Systems Divisions work with Internal Audit during its development to help ensure that proper internal controls are designed into the automation process and that necessary data points are captured that will assist with post-transaction analytics and reporting. Recommendation: 1. Benefits Division work with the Systems Division to automate the approval of those special payments processes where approvals are currently performed manually. 2. Benefits and Systems Divisions work with Internal Audit during its development to help ensure proper controls are designed into the automation process and that proper data points are captured that will assist with post-transaction analytics and reporting.	Original Management Response: Automating the approval process for special payments is feasible; however, special payments are initiated from multiple sources in Workspace. Each source will need to be analyzed and then specifications developed and tailored to each individual source. As such, the approval process would need to be implemented in a phased approach. Internal Audit will be included in the implementation process to ensure proper controls and reporting. There are some significant organizational goals that need to be completed before this modification can be addressed. It is estimated that determining the requirements and the level of effort can begin in the next fiscal year, July, 2017. The results of the requirement gathering will be reported to management by December 31, 2017, so that the project can be prioritized. Current Status: Planned for completion by 06/30/2020.	Bernie Buenaflor, Benefits Division	Benefits Division	12/31/2017	Pending 6/30/2020
Certificate Processing	Benefits Division 6/28/2017	Description of Finding: Multiple divisions handle and process certificates such as birth, marriage, or death certificates provided by members. However, we noted that many division practices regarding certificates have been developed locally within each division which has caused some inconsistencies. Recommendation: LACERA should establish an organization-wide policy over the request, receipt, validation, and use of certificates along with other sources of information to validate member or beneficiary information.	Original Management Response: The Benefits Division concurs with the recommendation and has an ongoing project to standardize procedures governing the validation and use of various government-issued documents. This project was initiated by the Process Management Group in collaboration with partners in Member Services, Administrative Services, the Legal Office and Internal Audit. The new Benefits Protection Unit has joined in this effort as well. It is anticipated that this project will be completed by June 30, 2018. Current Status: Formal procedures have been created for the processing of birth, marriage, and death certificates. These procedures were posted in the Benefits Library as of 10/24/2019.	Bernie Buenaflor, Benefits Division	Benefits Division	6/29/2018	Implemented 10/24/2019

Audit Recommendations Follow Up

Certificate Processing	Benefits Division 6/28/2017	Description of Finding: We tested twelve (12) first retirement payments. Since the member's retirement benefit and the survivor's continuance in these Option Retirements uses the named beneficiary's age as a component of the calculation, LACERA procedures require that staff validate the named beneficiary's birth certificate. We noted here that, although staff requested birth certificates in each of the twelve cases, they did not obtain the birth certificates in three (3) instances. However, in all three instances, staff processed the retirements anyway and used the beneficiaries' ages provided by the members over the phone. Based on discussions with staff, these exceptions were a result of a misunderstanding of current procedures and whether or not staff could hold-up the retirement process based on a missing birth certificate as an actual business practice. Recommendation: Management should review and update the procedures regarding "Retirement Options" and related certificate requirements prior to retirement and ensure that staff are provided with any necessary clarification and/or training.	Original Management Response: The Benefits Division concurs with the recommendation and has an ongoing project to standardize procedures governing the validation and use of various government-issued documents. This project was initiated by the Process Management Group in collaboration with partners in Member Services, Administrative Services, the Legal Office and Internal Audit. The new Benefits Protection Unit has joined in this effort as well. Within the scope of this project, existing procedures regarding the use of government-issued documents in the processing of retirement options will be reviewed, updated and disseminated among all appropriate staff. It is anticipated that this project will be completed by June 30, 2018. Current Status: Formal procedures have been created for the processing of birth, marriage, and death certificates. These procedures were posted in the Benefits Library as of 10/24/2019.	Bernie Buenaflor, Benefits Division	Benefits Division	6/29/2018	Implemented 10/24/2019
Member Death Record Process	Benefits Division 10/31/2017	Description of Finding: We noted that management did not have a process for ensuring that the Death Verification Contractor (DVC) has strong controls for securing and safeguarding LACERA's member data. Specifically: Management did not request a SOC2 report from the DVC. Internal Audit subsequently reached out to the DVC and found that they had a SOC2 audit performed in April, 2016. In reviewing the SOC2 report, we found that the DVC had recently changed the facility for where their servers are maintained and located, which houses LACERA's member data. However, LACERA management was unaware of the change and had not performed due diligence to ensure that the new facility was secure. Management does not have a process for performing on-going due diligence of the DVC information technology (IT) infrastructure to determine its adequacy. Recommendation: The Benefits Division should consult the LACERA Compliance Program Team related to the enhanced requirements for managing and monitoring vendors that have custody of LACERA member data. This may include the need to revise contract language, enhance oversight and due diligence procedures, and coordinate a visit to the vendor(s).	Original Management Response: The Benefits Division concurs with the recommendation. LACERA's Compliance Program Team and Privacy Officer will develop a system for regularly verifying that LACERA's external partners who take custody of LACERA's confidential information maintain adequate protections over that information. It is anticipated that the control system will be in place by December 31, 2018. Additionally, the Benefits Division will work with LACERA's Compliance Team and Privacy Officer to develop a system for monitoring the DVC and other external vendors with whom the Benefits Division contracts with to ensure LACERA's member data is secure. We anticipate completing this by March 31, 2018. Current Status: The Administrative Services Division will submit a revised Procurement Policy at the April 2019 Operations and Oversight Committee that requires Division Managers or their designee to regularly verify that LACERA's external partners who take custody of LACERA's confidential information maintain adequate protections over that information.	Bernie Buenaflor, Benefits Division Kimberly Hines, Administrative Services Division James Brekk, Systems Division	Benefits Division Administrative Services Division Systems Division	12/31/2018	Pending 12/31/2020

Audit Recommendations Follow Up

			Administrative Services Division in conjunction with the System Division developed a Contract Management System (CMS) that actively notifies the responsible contracting manager to perform yearly due diligence regarding the collection and review of SOC-2 or equivalent documents as required. Administrative Services has trained all contracting authorities in the use of the new system. The Legal Division has requested a new compliance position in the FY 2019-2020 budget. This position will be responsible for updating privacy and data policies as well and implementing new procedures, if any. Planned for completion by 12/31/2020.				
Benefits Exception Report Audit	Benefits Division 11/22/2019	Description of Finding: During our discussions with staff regarding their exception reports review procedures and as part of our report testing, we noted several instances where data on the exception reports lacked completeness, accuracy, and usefulness. Internal Audit performed a detailed review of records for at least one exception report in five of the six Account Integrity Services (AIS) and Special Benefits Services (SBS) teams, as the Benefits Protection Unit currently does not receive exception reports. Based on our analysis, we identified errors in each of the reports ranging from false positives, inaccurately classified records, missing time periods or unknown error types. Due to the completeness and accuracy issues as noted, in addition to the unknown error types printed on the reports, staff in AIS and SBS have determined that all records in an exception report would require validation, however time, resource constraints and competing priorities limited staffs' ability to consistently perform this function. Recommendation: Benefits and Systems management should collaboratively implement a consistent process to evaluate exception reports data for completeness, accuracy, and usefulness. The process should include steps to maintain an inventory of current reports and error types and identify reports that have inaccurate or irrelevant data. This will enhance staff's understanding of the content in the exception reports and ensure information that management and staff rely upon to make judgments regarding member accounts are meaningful and does not negatively impact LACERA's fiduciary duty to maintain the fund.	Management Response: Management agrees with the recommendation and will establish a system for routinely reviewing and, as needed, modifying systems-generated exception reports used by the Benefits Division. The Benefits Process Management Group will work in conjunction with LACERA's Compliance Office and Systems to address this challenge within the framework of LACERA's Compliance Program and LACERA's strategic vision. Management anticipates completing an evaluation of the key exception reports by June 30, 2020. Management also anticipates performing an ongoing analysis of exception reports as part of a future project to reengineer the application that produces the exception reports. The project is currently in the planning stage and is part of LACERA's long-term strategic plan.	Bernie Buenaflor, Benefits Division James Brekk, Systems Division	Benefits Division Systems Division	6/30/2020	New

Audit Recommendations Follow Up

Benefits Exception Report Audit	Benefits Division 11/22/2019	Description of Finding: To determine timely deletion of obsolete or invalid exception reports, Internal Audit requested a listing of all current, retired, and transferred staff in both the Account Integrity Services and Special Benefit Services groups and a list of all reports sent those individuals. We noted two employees, who retired from LACERA during the first quarter of 2019, were still listed as active recipients. We noted a contributing factor for the error was the lack of documented policies and procedures for consistently reviewing exception report content, report recipients and notifying Systems when a report was obsolete or a user should stop receiving a report. Prior to our audit, the Benefits Division had recognized the need to develop procedures for cleaning up the high volume of exception reports sent to the Division and currently has plans to work with Systems to define an appropriate process going forward. We should also note that the two retired staff members Internal Audit identified have since been removed from the active recipient lists for those reports. Recommendation: Benefits and Systems management should implement a formal periodic review process to evaluate exception reports data and recipients and establish policies and procedures to delete obsolete exception reports and recipients. A formalized review process, policies and procedures would help ensure that reports continue to assist the business unit achieve its operational objectives, obsolete reports are deleted timely and recipients only receive reports commensurate with their job responsibilities..	Management Response: Management agrees with the recommendation and will consider these factors as it establishes a system for managing the exception reports. Management anticipates defining the review process, policy and procedures, as well as implementing this recommendation by June 30, 2020.	Bernie Buenaflor, Benefits Division James Brekk, Systems Division	Benefits Division Systems Division	6/30/2020	New
Benefits Exception Report Audit	Benefits Division 11/22/2019	Description of Finding: Internal Audit noted during our discussions as well as during our sample report testing, several instances where exception reports containing hundreds of pages of data as well as numerous cover pages automatically print. One report in particular contained over 450+ pages and was configured to print twice a month while another report that printed daily had a total of 69 pages of which 38 contained cover page type information such as report name, recipient and database name. Per inquiry with staff in the Report Control Center as well as other areas that receive automatically printed reports, we noted that Benefit's staff have dedicated portions of their day to ensure the printers had paper at all times and that all exception reports pages were collected and sorted. Furthermore, Systems helpdesk staff would often automatically replace the ink and toner for those printers on a set schedule. Recommendation: Benefits and Systems management should collaboratively work to determine if all hard copy reports can be limited to electronic copy and allow staff to print only the reports and/or pages of the report that are needed.	Management Response: Management agrees with the recommendation and will consider these factors as it establishes a system for managing the exception reports. Benefits management anticipates completing an evaluation of the hard copy exception reports and Systems management has confirmed it is ready to convert those reports to electronic copies at the direction of Benefits by June 30, 2020.	Bernie Buenaflor, Benefits Division James Brekk, Systems Division	Benefits Division Systems Division	6/30/2020	New

Audit Recommendations Follow Up

Benefits Exception Report Audit	Benefits Division 11/22/2019	Description of Finding: In addition to the exception reports that alert staff to errors in the automated batch jobs, other reports are routinely generated that identify certain instances where a member's account may need further staff review such as the "Missing Contributions," "Outlawed Checks" and "Deferred/Inactive Member" files. The "Missing Contributions" file contains members who could be underpaying their required contributions, while the "Outlawed Checks" file contains a listing of outstanding stale dated checks and the "Deferred/Inactive Member" file contains members who could potentially be required to take a minimum distribution for federal tax purposes. Per inquiry with staff in Account Settlement Unit, Internal Audit noted that due to competing priorities, false positive records as previously identified, time constraints, and limited staff resources, staff would often prioritize reviewing reports and processes that affect the on-time benefit payment for retired members over these reports. By doing so, there is an increased risk that significant errors are missed and not corrected which eventually become financially detrimental to our members. Internal Audit further noted, prior to our audit, the Benefits Division was already aware of the potential risk of not reviewing these reports and had already begun separate special projects to address the underlying issues in lieu of focusing on validating records in the exception reports. The Process Management Group (PMG) in Benefits is currently managing these special projects. Recommendation: Benefits management should continue working with the PMG group to evaluate and refine the exceptions reports review process however, management should also consider developing a process that includes:	Management Response: Management agrees with the recommendation and will consider these factors as it establishes a system for managing the exception reports. Management anticipates completing this recommendation by June 30, 2020.	Bernie Buenaflor, Benefits Division	Benefits Division	6/30/2020	New
		a. Identifying a complete population of key reports and documenting the purpose of each report. b. Documenting LACERA's exposure to additional risks and liabilities associated with the information in those key reports. c. Defining procedures to consistently validate the completeness and accuracy for those reports when changes occur to business rules or the law.					
Benefits Exception Report Audit	Benefits Division 11/22/2019	Description of Finding: The Report Control Center (RCC) is the Benefits process for managing the large volume of reports that automatically print throughout the month. Staff assigned to the RCC are responsible only for collecting and sorting the printed reports, distributing them to the appropriate staff for review, and filing the reports that staff signed off. During our walkthrough of the RCC process, we observed that hard copies of the reports for the current and prior fiscal years are stored in locked cabinets in the Benefits Division suite due to the sensitive member data contained in each report. We confirmed that staff generally keep the cabinets locked at all times, including during normal business hours, and only a select number of staff have access to the cabinet keys. While this practice ensures that visitors and other employees who are not authorized do not inadvertently access sensitive information, we noted however that older RCC reports were exposed to such risks during the archiving process. RCC reports when archived to the basement of the building or off-site to Iron Mountain are placed into boxes that are not further secured and removed by staff in Administrative Services or the vendor. Recommendation: Benefits management should review and establish retention cut-off dates in the Report Control Center (RCC) to ensure that reports are destroyed after a certain time period to mitigate any potential information security risks. Benefits should also perform an inventory of currently stored reports and destroy reports no longer needed.	Management Response: Management agrees with the recommendation and will enforce LACERA's document retention policies in the Report Control Center (RCC). Management has instructed staff to work with the Records and Information Management (RIM) Unit to compile an inventory of all stored reports by December 31, 2019 and destroy reports no longer needed by March 31, 2020.	Bernie Buenaflor, Benefits Division	Benefits Division	3/31/2020	New

Audit Recommendations Follow Up

Financial Accounting Services Division (FASD)							
Board and Staff Education & Travel	Financial Accounting Services Division 6/20/2019	Description of Finding: Audit testwork identified areas where travelers did not follow Policy and related payment processes: pre-approval of educational conference, lodging upgrades, reimbursement of meal per diems, and ground transportation. Recommendation 1: FASD management should assess the need to obtain missing documentation and/or recover amounts from travelers for noncompliant transactions that were identified during the audit.	Original Management Response: Management concurs with the recommendation. FASD management will have staff review the audit exceptions, and follow-up with travelers to obtain missing documentation and/or recover any amounts owed, as applicable, due to non-compliant transactions. Current Status: This recommendation is expected to be completed by January 31, 2020.	Ted Grainger, FASD	Financial Accounting Services Division	1/31/2020	Pending 1/31/2020
Board and Staff Education & Travel	Financial Accounting Services Division 6/20/2019	Description of Finding: Audit testwork identified areas where travelers did not follow Policy and related payment processes: pre-approval of educational conference, lodging upgrades, reimbursement of meal per diems, and ground transportation. Recommendation 2: FASD management should ensure that its staff consistently enforces the Policy and escalates to FASD management any areas of the Policy requiring interpretation or clarification.	Original Management Response: Management concurs with the recommendation. FASD will evaluate a monitoring mechanism to ensure consistent Policy enforcement. In addition, Management re-emphasized to staff the importance of elevating exceptions to the Policy for guidance and resolution. Current Status: This recommendation is partially implemented and is expected to be completed upon the approval of the revised Policy.	Ted Grainger, FASD	Financial Accounting Services Division	6/30/2020	Pending 6/30/2020
Board and Staff Education & Travel	Financial Accounting Services Division 6/20/2019	Description of Finding: Audit testwork identified areas where travelers did not follow Policy and related payment processes: pre-approval of educational conference, lodging upgrades, reimbursement of meal per diems, and ground transportation. Recommendation 3: Management should periodically provide training to the Boards and staff on the Policy to ensure travelers and approvers are aware and compliant with the Policy requirements.	Original Management Response: Management concurs with the recommendation. FASD will work with the Executive and Legal Offices to schedule Travel Policy training for the Boards and staff at least annually or when the Policy is revised. Current Status: This recommendation is expected to be completed by June 30, 2020.	Ted Grainger, FASD	Financial Accounting Services Division	6/30/2020	Pending 6/30/2020
Board and Staff Education & Travel	Financial Accounting Services Division 6/20/2019	Description of Finding: Audit testwork identified areas where travelers did not follow Policy and related payment processes: pre-approval of educational conference, lodging upgrades, reimbursement of meal per diems, and ground transportation. Recommendation 4: To improve the effectiveness and efficiency and to consistently enforce the review process, FASD, the Legal Office, and the Executive Office should meet periodically to determine a joint understanding of the Policy, how to address and document when questionable charges occur, and if updates or revisions should be suggested to the Boards.	Original Management Response: Management concurs with the recommendation. FASD management will schedule joint meetings with FASD, the Executive and Legal Offices when there are Policy updates. In addition, this core group will convene at least bi-annually to review the Policy and related issues of non-compliance to determine if such issues warrant Board consideration for Policy revision. Current Status: This recommendation is expected to be completed upon the approval of the revised Policy.	Ted Grainger, FASD	Financial Accounting Services Division	6/30/2020	Pending 6/30/2020

Audit Recommendations Follow Up

Board and Staff Education & Travel	Financial Accounting Services Division 6/20/2019	Description of Finding: Audit testwork identified areas where travelers did not follow Policy and related payment processes: pre-approval of educational conference, lodging upgrades, reimbursement of meal per diems, and ground transportation. Recommendation 5: To be consistent with the section "Authorized Expenses" (705.02) of the Policy, that expenses should be "reasonable and necessary," Boards and management should: a. Revise the Policy to reflect current economical transportation services, like public transportation, taxis, or ride-share services. The Policy should still require the traveler to provide written justification for using an upgraded ground transportation service if used. b. Update the Policy to address if and when the use of an executive car service is acceptable.	Original Management Response: Management concurs with this recommendation. Management will bring the issue to the JOGC for further discussion. Current Status: This recommendation is expected to be completed by January 31, 2020.	Ted Grainger, FASD	Financial Accounting Services Division	1/31/2020	Pending 1/31/2020
Board and Staff Education & Travel	Financial Accounting Services Division 6/20/2019	Description of Finding: FASD does not have a complete physical or electronic file for each travel event but instead maintains several platforms of information; a binder with all approved conferences and related agendas, a corporate credit card database, and Great Plains, a financial and accounting software system. Not having a complete file for each travel event decreases the effectiveness of the review process, an operational risk. Furthermore, incomplete travel files makes it more difficult for FASD to provide accurate numbers on the Travel Reports. Recommendation 1: To improve the effectiveness and efficiency of FASD's review process, FASD should provide instructions for the Travel Expense Voucher (payment request), so travelers can provide a complete travel file.	Original Management Response: Management concurs with the recommendation. FASD will update the Travel Expense Voucher to include clear written instructions for completing the document. Current Status: This recommendation is expected to be completed by June 30, 2020.	Ted Grainger, FASD	Financial Accounting Services Division	6/30/2020	Pending 6/30/2020
Board and Staff Education & Travel	Financial Accounting Services Division 6/20/2019	Description of Finding: FASD does not have a complete physical or electronic file for each travel event but instead maintains several platforms of information; a binder with all approved conferences and related agendas, a corporate credit card database, and Great Plains, a financial and accounting software system. Not having a complete file for each travel event decreases the effectiveness of the review process, an operational risk. Furthermore, incomplete travel files makes it more difficult for FASD to provide accurate numbers on the Travel Reports. Recommendation 2: To improve the effectiveness and efficiency of FASD's review process, FASD should work with the Systems Division and the Executive Office to explore solutions that would allow travelers to upload and allocate travel receipts, and that would allow FASD to review and store complete travel files in a central location.	Original Management Response: Management concurs with the recommendation. FASD held preliminary discussions with the Systems Division and the Executive Office to evaluate the feasibility of implementing a travel receipt capture and storage tool. Current Status: This recommendation is partially implemented and expected to be completed by June 30, 2020.	Ted Grainger, FASD	Financial Accounting Services Division	6/30/2020	Pending 6/30/2020

Audit Recommendations Follow Up

Board and Staff Education & Travel	Financial Accounting Services Division 6/20/2019	Description of Finding: Quarterly Travel Reports did not accurately reflect the travel expenditures for a traveler's trip. In addition to the inaccuracies that Internal Audit identified, we learned from discussions with FASD, the Executive Board Assistants, and the Legal Office that the FY 2018 Quarterly Travel Reports were significantly revised for inaccurate reporting of travel expenditures before a public data request was fulfilled. Based on discussions with FASD, many of the inaccuracies in the Reports were caused by having a key member of FASD's Disbursements Unit out of the office for the majority of the year, and not having a complete travel file, as discussed in the prior section. Recommendation 1: To improve the accuracy of the Quarterly Travel Reports, FASD should ensure all members of FASD's Disbursements Unit are adequately trained and supervised.	Original Management Response: Management concurs with the recommendation. FASD management instructed supervisors and staff to review and consistently refer to the current Policy. When changes to the Policy occur, the supervisor will ensure staff are aware of those changes and are adequately trained on such changes. Current Status: This recommendation is expected to be completed by January 31, 2020.	Ted Grainger, FASD	Financial Accounting Services Division	1/31/2020	Pending 1/31/2020
Board and Staff Education & Travel	Financial Accounting Services Division 6/20/2019	Description of Finding: Quarterly Travel Reports did not accurately reflect the travel expenditures for a traveler's trip. In addition to the inaccuracies that Internal Audit identified, we learned from discussions with FASD, the Executive Board Assistants, and the Legal Office that the FY 2018 Quarterly Travel Reports were significantly revised for inaccurate reporting of travel expenditures before a public data request was fulfilled. Based on discussions with FASD, many of the inaccuracies in the Reports were caused by having a key member of FASD's Disbursements Unit out of the office for the majority of the year, and not having a complete travel file, as discussed in the prior section. Recommendation 2: To improve the accuracy of the Quarterly Travel Reports, FASD should instruct travelers on providing a complete travel file, and work with the Systems Division and the Executive Office to explore having traveler's upload and allocate travel receipts to a central location.	Original Management Response: Management agrees with the recommendation. FASD will provide instructions for complete travel files to travelers. In addition, FASD held preliminary discussions with the Systems Division and the Executive Office to evaluate the feasibility of implementing a travel receipt capture and storage tool. Current Status: This recommendation is expected to be completed by June 30, 2020.	Ted Grainger, FASD	Financial Accounting Services Division	6/30/2020	Pending 6/30/2020
Board and Staff Education & Travel	Financial Accounting Services Division 6/20/2019	Description of Finding: The current Policy does not clearly address the definition of administrative travel, how administrative meetings should be categorized, or if administrative travel should count towards a Board member's annual conference limit. Staff excluded administrative travel from the annual conference limits. Staff consistently applied this interpretation to all Board members and all Travel Reports have reflected this interpretation since July 2014. However, during our audit, we noted stakeholders were unclear if staff's interpretation of the Policy was correct. The Policy should be revised to more clearly address "Administrative Travel." Recommendation: To strengthen the Policy, the Boards and management should revise the Policy to clarify "Administrative Travel" to define controls regarding when administrative travel is authorized, if there is a limit to administrative travel, and how administrative travel should be categorized for Board members.	Original Management Response: Management concurs with this recommendation. Management will bring the issue to the JOGC for further discussion. Current Status: This recommendation is expected to be completed by January 31, 2020.	Ted Grainger, FASD	Financial Accounting Services Division	1/31/2020	Pending 1/31/2020

Audit Recommendations Follow Up

Board and Staff Education & Travel	Financial Accounting Services Division 6/20/2019	Description of Finding: Per the Policy, local educational conferences are conferences where there is no common carrier travel and lodging is under \$1,500, and these conferences should not be counted towards the annual 8/12 conference limit. We observed that it is difficult to categorize which conferences should be considered "local educational conferences", not subject to the 8/12 limit, as this determination needs to be made for each traveler's individual travel expenditures. We reviewed the 4th Quarter FY 2018 Travel Report, and noted that staff had categorized several trips as "local educational conferences" but these trips included either airfare or lodging was over \$1,500. Recommendation: To ensure conferences are consistently and accurately categorized, conference limitations are applied, and to assist Board members in planning their educational conferences, Boards and management should revise the Policy to provide a standardized definition of "local educational conferences" – for example, limiting these to Los Angeles County, Southern California, or a set distance from LACERA.	Original Management Response: Management concurs with this recommendation. Management will bring the issue to the JOGC for further discussion. Current Status: This recommendation is expected to be completed by January 31, 2020.	Ted Grainger, FASD	Financial Accounting Services Division	1/31/2020	Pending 1/31/2020
Board and Staff Education & Travel	Financial Accounting Services Division 6/20/2019	Description of Finding: We reviewed industry best practices, compared other public pension funds' education and travel policies and if available, published travel reports, and recent media articles regarding travel by governmental agencies. In our assessment of the current Policy, we noted it does not have an overarching educational strategy that focuses on developing and improving key skills that fiduciaries generally need. Recommendation: To improve the effectiveness and adequacy of the Policy, Boards and management should: a. Review the Clapman report's education policy for a template of best practices. b. Consider adopting an organizational-wide educational strategy and incorporating the "Trustee (Fiduciary) Knowledge Self-Assessment." Texas Teacher Retirement System and CalSTRS have both hired a consultant to assess the organizations' requirements and preferences and to provide guidance in developing an effective educational strategy. c. Consider working with LACERA's Training Coordinator to develop a process to create a stakeholder's educational plan, monitor the broader educational needs of the Board for in-house training opportunities, and review and evaluate educational conferences.	Original Management Response: Management concurs with this recommendation. Management will bring the issue to the JOGC for further discussion. Current Status: This recommendation is expected to be completed by January 31, 2020.	Ted Grainger, FASD	Financial Accounting Services Division	1/1/2020	Pending 1/1/2020

Audit Recommendations Follow Up

Board and Staff Education & Travel	Financial Accounting Services Division 6/20/2019	Description of Finding: Internal Audit analyzed the costs of registration, airfare, and lodging, for the last four fiscal years to gain a better understanding of the increase in Board education travel expenditures. Based on the analysis, the cost of airfare has sharply increased, and we believe LACERA's airfare costs could be reasonably reduced. We observed from our testing that refundable tickets were purchased for some travel events. Since the current Policy does not address if or when purchasing refundable tickets is allowed, the purchases were not out of compliance with the Policy. However, since refundable tickets are often two to three times the cost of non-refundable tickets, it seems inconsistent with the Policy's general commentary on Attachment A of the Policy, "Travelers are encouraged to schedule travel in a way that minimizes LACERA's travel expenses." Additionally, we noted that prudent procurement practices, such as comparing prices among at least three airlines flying to the destination, modifying dates and times of travel, and prohibiting Board members from limiting their travel to one specific airline, are not encouraged or enforced. Recommendation: To reduce LACERA's total airfare costs, Boards and management should: a. Re-evaluate the use of business class airfare. b. Evaluate stronger enforcement of prudent procurement practices as described above, including prohibiting the purchase of refundable tickets.	Original Management Response: Management concurs with this recommendation. Management will bring the issue to the JOGC for further discussion. Current Status: This recommendation is expected to be completed by January 31, 2020.	Ted Grainger, FASD	Financial Accounting Services Division	1/31/2020	Pending 1/31/2020
Human Resources Division							
Timekeeping Audit	Human Resources Division 11/22/2019	Description of Finding: LACERA does not have a standard set of timekeeping policies or procedures. Human Resources (HR) management is responsible for designing control activities through formal policies and procedures that are written, dated, and signed. It would reduce potential risks such as inaccurate hours being recorded in the eHR system, inaccurate pay codes used for leaves or absences, and most importantly, inaccurate payroll. Recommendation: HR should develop formal timekeeping policies and procedures to promote consistency and compliance within LACERA. This includes understanding which Los Angeles County human resources laws and policies are applicable to LACERA.	Original Management Response: Management agrees with the recommendations. Human Resources Division developed a draft timekeeping policy and procedures along with a draft guide to timesheet coding and submission that is pending release of the new employee handbook. The estimated completion date is March 31, 2020.	Annette Cleary, Human Resources Division	Human Resources Division	3/31/2020	New
Timekeeping Audit	Human Resources Division 11/22/2019	Description of Finding: Under the current timekeeping process, when a question or issue arises during the current timekeeping process, the timekeepers call a HR Staff for assistance. The inquiry topic ranges from experiencing eHR system glitches to asking about which pay code is appropriate to use. The latter issue stems from the numerous job types that exist at LACERA: Exempt, Non-Exempt, Represented, and Non-Represented. Each job type is entitled to different benefits and correspondingly, each job type has different pay codes for reporting variance time. Recommendation: HR should track frequently asked questions and create a FAQ or equivalent document to educate staff and increase effectiveness of timekeeping process.	Original Management Response: Additionally, the FAQs are scheduled to be posted on the Intranet by December 6, 2019. Human Resources Division will send the timekeeping policy and procedures annually to all Staff Members and update the FAQs on the Intranet as needed.	Annette Cleary, Human Resources Division	Human Resources Division	12/6/2019	New

Audit Recommendations Follow Up

Timekeeping Audit	Human Resources Division 11/22/2019	Description of Finding: A listing of the divisional timekeepers and proxies, including backup personnel, is not maintained. During the questionnaire evaluation process, Internal Audit identified certain divisions without a designated backup timekeeper and/or proxy, of which HR serves as the backup role. We noted it would be beneficial to have a designated backup staff within the division who can actively monitor staff's time for timekeeping accuracy. Recommendation: HR should track who performs the roles and responsibilities of timekeeper and proxy, including any backup role within each division, to ensure that an appropriate segregation of duties is maintained. Temporary timekeepers and proxies should also be tracked to ensure approval and access rights are terminated when no longer needed.	Original Management Response: Management agrees with the recommendations. Human Resources will create a policy and formal process for the Divisions to follow to appoint or remove staff members as timekeepers and proxies, including any backup role within each division. Based upon this, Human Resources Division will create and maintain a list of timekeepers and proxies, including any backup role within each division. Human Resources will update the list accordingly. The estimated completion date is March 31, 2020.	Annette Cleary, Human Resources Division	Human Resources Division	3/31/2020	New
Timekeeping Audit	Human Resources Division 11/22/2019	Description of Finding: A common feedback from the respondents was the request for additional training or periodic refresher courses on timekeeping. In the past, timekeeping training were held sporadically and infrequently. For new timekeepers and proxies, they often do not receive timekeeping training before they take on the roles and responsibilities of being a timekeeper or proxy. For seasoned timekeepers and proxies, they were not consistently provided with refresher courses once the initial training was provided. Recommendation: HR should create a documented process to ensure training is provided timely to new timekeepers and proxies as well as refresher training to existing timekeepers, proxies, and their supervisors. Internal Audit recommends the documented process occurs on an annual basis at each division.	Original Management Response: Management agrees with the recommendation. Upon notification of a new timekeeper, Human Resources will schedule training with the newly appointed timekeeper. In addition, Human Resources will schedule training twice a year for all timekeeper and proxies. The estimated completion date is March 31, 2020.	Annette Cleary, Human Resources Division	Human Resources Division	3/31/2020	New

Audit Recommendations Follow Up

Investments Division							
Securities Lending	Investments Division 5/30/2018	Description of Finding: In an April 2017 memorandum to the Board of Investments, management expressed the need to periodically rebid the securities lending program as a good measure. It is good a practice to understand the fee implications of using third-party lending agents and the impact on program cost and performance. During our review, we observed two cases when LACERA incurred additional costs for using GSAL as a third-party lending agent. Even though LACERA incurred additional costs for using GSAL as a third-party lending agent, it would be difficult to quantify or contend that LACERA is better off using a single lender over multiple third-party lenders. LACERA may benefit from unbundling each SSB service offering and pricing it individually. In doing so, management can understand the costs-benefits of using third-party agents, and determine the best course of action for LACERA and the program going forward. Recommendation: Investments Office to assess the fee implications of working with third-party agents to provide securities lending services.	Original Management Response: Subject to BOI approval, Staff anticipates issuing an RFP for securities lending services in fiscal year 2018/2019, and that search will include an assessment of all related fees, including for third-party agents. Current Status: In the annual work plan submitted to the BOI in January, the first item scheduled for June is a launch of a securities lending RFP. As part of that search, we will assess the fee implications of working with third-party agents. Although the RFP will start by 6/30/19, implementation will be completed about 6 months later, when the search concludes.	Jon Grabel, Investments Division	Investments Division	6/30/2019	Pending 12/31/2019

Audit Recommendations Follow Up

Systems Division							
Data Backup/ Retention Testing	Systems Division 2/14/2018	Description of Finding: Recent technology upgrades of desktops computers and server systems rely upon live interface to Cloud Services, operating and email systems. Recovery of these services at a remote processing facility has not been tested in conjunction with recovery of LACERA's core membership system. Recommendation: Perform a recovery exercise of mission critical operations at a remote location as soon as practical to validate recovery procedures and capture learnings for potential disruptions.	Original Management Response: Mission critical membership payroll, accounting and investment data processing functions will be replicated offsite in a disaster recovery scenario during the fourth calendar quarter of 2018. Current Status: Target date set for 3rd Quarter, 2019.	James Brekk, Systems Division	Systems Division	12/31/2018	Pending 9/30/2019
Member Applications Change Control	Systems Division 10/30/2018	Description of Finding: We noted one staff person who has programming responsibilities also has administrator rights to the Change Management Control application. This was brought to the attention of management during the audit, and as a result, administrator access rights were removed for this person. Recommendation: The Systems Division management should develop a system generated Deployment Monitoring Report and use it to monitor all deployments to production. This will ensure that all code deployed into production are approved and appropriate.	Original Management Response: We plan to develop a system generated Deployment Monitoring Report that will identify any instances when code is deployed into production. Management plans to complete an analysis and evaluation to determine if feasible based on current project priorities and resources. This evaluation is planned for completion by the end of June 2019, and if feasible will be planned for implementation by the end of December 2019. Current Status: The recommended action is in progress and on target for a completion date of 12/31/19. We plan to transition to a different deployment tool that includes this reporting feature.	James Brekk, Systems Division	Systems Division	12/31/2019	Pending 12/31/2019
Member Applications Change Control	Systems Division 10/30/2018	Description of Finding: We identified several non-administrative staff user accounts within the administrator group that is used to access the membership document management application. Recommendation: Systems Division management should evaluate the administrator group membership and configuration and appropriately eliminate users that do not require administrator privileges to perform their job duties.	Original Management Response: We will complete a review of all users and system accounts that are members of the administrator group to ensure access is valid and that the administrator group is appropriate. We will also evaluate the possibility of introducing two levels of system administration, one group for system administrators and applications that interact with the application, and a second group for workflow administrators. This is planned for completion by December 31, 2018. Current Status: The recommended action is in progress and on target for a completion date of 12/31/2019. We have evaluated the administrator group membership and configuration and have recommended changes. The recommended changes will be implemented with the membership document management application upgrade.	James Brekk, Systems Division	Systems Division	12/31/2018	Pending 12/31/2019

Audit Recommendations Follow Up

Member Applications Change Control	Systems Division	Description of Finding: A formal policy does not exist to provide guidelines for granting staff administrator access and system management privileges. Recommendation: The Systems Division management should develop a formal Administrator Access Policy that applies to staff who are granted "Administrator" access on LACERA's systems, and management of privileged group membership.	Original Management Response: Systems Division management should develop a formal Administrator Access Policy that applies to staff who are granted "Administrator" access on LACERA's systems, and management of privileged group membership. Current Status: Planned for completion by 12/31/2019.	James Brekk, Systems Division	Systems Division	6/30/2019	Pending 12/31/2019

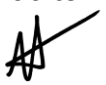
November 22, 2019

TO: 2019 Audit Committee
Gina Sanchez, Chair
Herman Santos, Secretary
Alan Bernstein
Shawn Kehoe
Ronald A. Okum
Les Robbins

Audit Committee Consultant
Rick Wentzel

FROM: Richard Bendall 
Chief Audit Executive

Gabriel Tafoya 
Senior Internal Auditor

Nathan Amick 
Internal Auditor

FOR: December 5, 2019 Audit Committee Meeting

SUBJECT: Continuous Auditing Program (CAP)

Internal Audit performs its **Continuous Auditing Program** (CAP) throughout the year. We defined CAP as continuous audit testing for fraud and compliance incorporating data analytics as the primary auditing tool.

- **Fraud Testing** – Provides timely insight into fraud indicators
- **Compliance Testing** – Ensures compliance through testing transactional data against established internal control rules and transactional profiles (e.g., *960-Hour Limit Test*)

Our primary data analytics tool **Audit Command Language** (ACL) allows us to examine large data sets to uncover exceptions, anomalies, hidden patterns, unknown correlations, and to assist with the audit process. ACL gives us the ability to review every transaction, not just sampling, which enables a more efficient analysis on a greater scale.

The intention of CAP is to give Internal Audit and LACERA Management greater visibility into processes, activities, and transactions, while adding value by means of improved compliance, risk management, and the ability to achieve business goals.

Should any of our CAP testing identify a systematic breakdown of controls, the project would be elevated and a full audit would be performed. In such a case, the Audit Committee would be notified.

COMPLETED CONTINUOUS AUDIT PROGRAM TESTS
For the period of 07/1/2019 through 11/22/2019

Project Name	Project Category	Completion Date
Over 90 Payees	Fraud	11/22/2019
New Payees	Fraud	11/15/2019
960 Rehired Retirees	Compliance	11/04/2019
Census Data Testing	Compliance	In Progress
Pay Codes Testing	Compliance	In Progress
Terminated Staff Key Cards Testing	Compliance	In Progress

The list below is a detail of the above completed and in progress projects including project name, purpose, methodology, coverage period, test results, and the frequency at which the tests are performed.

Continuous Audit Program (CAP) Testing Summary

FRAUD TESTING						
DIVISION	PROJECT NAME	PURPOSE	COVERAGE PERIOD	TEST FREQUENCY	METHODOLOGY	RESULTS
Benefits Division	Over 90 Payees	Validate the well-being of payees greater than 90 years old	As of 11/15/19	Semi-annually	Obtain 100% (4,378) population of retirement payees greater than 90 years old as of the 11/01/19 payroll, and match them to the Social Security Administration (SSA) database to identify possible member deaths LACERA has not received/identified.	Of the 4,378 tested, three were identified as possible deaths, and four were rejected from the SSA match for name discrepancies. These seven total cases have been referred to the Benefits Division for further analysis and investigation.
Benefits Division	New Payees	Validate the eligibility of all new payees added to the LACERA retirement payroll.	07/01/19 to 10/31/19	Monthly	Obtain monthly payroll file and trace all new payees to valid historical member data from LACERA and the plan sponsor documentation.	No exceptions were noted.

COMPLIANCE TESTING						
DIVISION	PROJECT NAME	PURPOSE	COVERAGE PERIOD	TEST FREQUENCY	METHODOLOGY	RESULTS
Executive Division	960 Rehired Retirees	To determine whether all rehired retirees are compliant with IRS, CERL, and PEPRA regulations.	FYE June, 30, 2019	Annually	- Obtain payroll detail of rehired retirees from County Auditor-Controller. - Test for CERL 960 hour compliance requirement. - Test for both the required IRS 90 break in Service and PEPRA 180 day break in service.	Testing has been completed with no significant findings identified.

COMPLIANCE TESTING (Continued)						
DIVISION	PROJECT NAME	PURPOSE	COVERAGE PERIOD	TEST FREQUENCY	METHODOLOGY	RESULTS
<i>Executive Division</i>	Pay Codes Testing	To determine if all paycodes used by plan sponsor are LACERA BOR approved.	07/01/19 to 09/30/19	Quarterly	Match the LACERA pay codes master listing against the Los Angeles County (LAC) Auditor-Controller's paycode file to identify discrepancies.	In Progress
<i>Executive Division</i>	Census Data Testing	Validate LACERA census data received from the plan sponsor.	07/01/18 to 06/30/19	Annually	- Obtain the LACERA earnings file and the Los Angeles County (LAC) Auditor-Controller's earnings file. - Select a population from each file and provide to Quality Assurance for their testing of key census data components that ensure data is complete and accurate.	In Progress
<i>Systems Division</i>	Terminated Staff Key Cards	Identify terminated employees who still have active key cards.	As of 10/24/19	Annually	Obtain the employee key card file and terminated employee listing, and match to identify terminated employees with active key cards.	In Progress

Documents not attached are exempt from disclosure under the California Public Records Act and other legal authority.

**For further information, contact:
LACERA
Attention: Public Records Act Requests
300 N. Lake Ave., Suite 620
Pasadena, CA 91101**

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