# REQUEST FOR PROPOSALS FOR PROFESSIONAL AUDITING SERVICES



Sacramento, California

Issue Date: February 17, 2017

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#### **SECTION I - INTRODUCTION**

#### A. General Information

- Send one original, five (5) copies, and an electronic copy (Adobe Acrobat PDF file) of your complete proposal to the office of the Sacramento County Employees' Retirement System at 980 9<sup>th</sup> Street, Suite 1900, Sacramento, CA 95814 by 4:00 p.m. Pacific Daylight Time on Thursday, March 30, 2017.
- Finalists may be invited to make an oral presentation to the Retirement Board at the May 2017 meeting, which is tentatively scheduled for Thursday, May 11, 2017.
- Costs for developing proposals are entirely the responsibility of the CONTRACTOR and will not be chargeable to SCERS.
- By providing references as requested, the CONTRACTOR is thereby giving permission to SCERS to contact these individuals.
- All proposals submitted in response to this RFP shall become the exclusive property
  of SCERS and shall be subject to public disclosure pursuant to the California Public
  Records Act (Cal. Govt. Code Section 6250 et. seq.). The Act provides generally
  that all records relating to a public agency's business are open to public inspection
  and copying, unless specifically exempted under one of several exemptions set forth
  in the Act.
- All proposals must remain valid for a period of not less than 90 days from the closing date for submission. This includes pricing as well as nominated engagement staff.

#### B. Background

The Sacramento County Employees' Retirement System (SCERS) is requesting proposals from qualified firms of certified public accountants (Auditors) to audit its financial statements for the fiscal years ending June 30, 2017 and 2016, and for each of the two subsequent fiscal years, contingent on the stipulations in the "term of engagement" as stated below in Section I.C.

These audits are to be performed in accordance with 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 and the "Minimum Audit Requirements and Reporting Guidelines for California Public Retirement Systems" issued by the California State Controller (See Exhibit F).

Clarifications of or requests for additional information to this Request for Proposals should be submitted to SCERS Chief Operations Officer, Kathryn T. Regalia, with sufficient time to allow a timely response prior to the RFP submission deadline. Simple clarification questions may be communicated by telephone while all others should be communicated in writing and sent by mail or email (See Exhibit B).

SCERS will administer the contract that will result from this Request for Proposals (RFP).

#### C. Term of Engagement

A three-year contract is contemplated, subject to the satisfactory negotiation of terms (including a price acceptable to both SCERS and the selected firm). The term of the original contract may be extended for an additional one to three years upon the mutual agreement of SCERS and the selected firm.

#### D. Qualifications of the Auditor

Firms submitting a proposal must:

- Have sufficient knowledge and training to enable them to comply with generally accepted auditing standards.
- Have an adequate knowledge of governmental accounting.
- Have sufficient knowledge of pension accounting and actuarial science.
- Have experience auditing public retirement systems.

#### SECTION II - DESCRIPTION OF ENTITY AND RECORDS TO BE AUDITED

#### A. General Background

SCERS is a defined benefit pension plan established to provide retirement benefits to the employees of the County of Sacramento (County) and other participating agencies pursuant to the County Employees Retirement Law of 1937, (CERL), California Government Code Section 31450, et seq. Original membership in the system began in 1941.

SCERS collects, deposits, invests, and manages retirement trust funds solely in the interest of, and for the exclusive purpose of providing benefits to participants and their beneficiaries. As of June 30, 2016 SCERS' membership included approximately 16,000 active and inactive members entitled to benefits but not yet receiving them and 11,000 retirees and beneficiaries currently receiving benefits. SCERS acts as fiduciary agent for the accounting and control of member and employer contributions and investment income. The trust fund had net assets of approximately \$7.7 billion as of June 30, 2016.

Management of SCERS, pursuant to CERL, is vested in the Board of Retirement which:

- Is responsible for the administration and maintenance of SCERS' records in accordance with the provisions of CERL and Retirement Board Bylaws.
- Sets policy for and monitors the investment of SCERS' assets.
- Appoints a Chief Executive Officer for SCERS.
- Annually adopts a budget covering the entire expense of SCERS' administration.

SCERS administers "the plan" primarily for the County and the employees of the County. In addition, eleven districts and the Superior Court, County of Sacramento, actively participate in the retirement plan.

#### B. Investments

SCERS uses external investment managers chosen by the Board of Retirement to invest the System's assets. As of June 30, 2016, there were over 100 separate account portfolios, including domestic equity, international equity, private equity opportunities, real assets, fixed income, and a strategic cash overlay program (see Exhibit E). The Board utilizes the services of Verus as a general consultant along with an alternative assets consultant and real estate consultant to assist in developing the investment policy, prepare asset/liability studies, advise on the asset allocation, help conduct manager searches and assist in monitoring investment manager performance. All SCERS' investments are externally managed by investment managers. SCERS's investment team consists of a Chief Executive Officer, a Chief Investment Officer, a Deputy Chief Investment Officer, and an Investment Officer who are responsible for the monitoring of SCERS' investment program, ensuring that the external investment managers are in compliance with SCERS' investment policy and objective. SCERS' custodian is State Street Bank (State Street). In addition to custodial services (including performance measurement), State Street provides securities lending services to SCERS, and through State Street Global Markets, administers an overlay program and a commission recapture program. SCERS' accounting staff is responsible for the reconciliation and accounting of investment transactions and assets between the custodian's records and the investment managers' records. SCERS' Investment program is described on pages 84 - 106 of Exhibit D.

#### C. Contributions

County payroll records are interfaced to the SCERS accounting system from the County's customized SAP payroll system and contributions are automatically posted to the SCERS general ledger accounts as part of the County's payroll posting and reconciliation process. District payroll records (including Superior Court of California, Sacramento) are interfaced from separate payroll systems and contributions upon receipt are recorded by SCERS to the appropriate general ledger accounts.

#### D. Accounting and Reporting

SCERS operates as an independent governmental pension trust fund separate and distinct from the County of Sacramento. SCERS' annual financial statements are not included in the County of Sacramento's Annual Financial Report.

#### E. Systems Applications

SCERS' uses Sacramento County's payroll and general ledger system. Sacramento County purchased SAP Software to build a modular financial reporting system which integrates accounting, purchasing and human resources data. The County's system was given the acronym "COMPASS" to represent Comprehensive Online Maintenance of Personnel and Accounting Systems for Sacramento. SCERS general accounting records and financial reports are collected in the COMPASS system, which is run on dedicated servers. Active member data collected in COMPASS payroll and other special district payroll is passed through to the accounting module, and utilizing an interface, it is passed to SCERS' member accounting application (MBASE). SCERS staff uses MBASE to view current and historical member contribution records and COMPASS or special districts' payroll systems to view member detailed payroll

information. Detailed investment accounting records are maintained by the System's custodian. SCERS utilizes Excel to combined data from COMPASS and the custodian's records to prepare its financial statements.

#### F. Administrative Expenses

SCERS' Board of Retirement annually adopts the operating budget for the administration of SCERS. The 1937 Act limits SCERS' annual administrative expenses, excluding the costs of administration for computer software and hardware and

computer technology consulting services, to twenty-one hundredths of one percent (0.21%) of the System's actuarial accrued liability. The operating budget includes allocations for fixed assets, which are capitalized upon purchase and expensed over their useful lives.

#### G. Actuarial Services and Information

SCERS engages an independent actuarial firm, The Segal Company (Segal), to conduct annual actuarial valuations to monitor SCERS' funding status. annual actuarial valuation report is expected to be issued prior to completion of the audit and Comprehensive Annual Financial Report. Segal also issues additional reports which provide the Net Pension Liability and other that are required for completing the System's employers' financial reporting requirements under GASB 67 Statements No. 67 and 68.

On a triennial basis, these valuations are updated for economic and non-economic assumptions as required by the California Government Code. In addition, as part of SCERS' program for overseeing actuarial services, on a periodic basis an independent actuarial review of the actuarial valuation (actuarial audit) is conducted to help assure that the consulting actuary is using appropriate valuation methods and assumptions, and to confirm that they are being applied properly.

Both the triennial and annual valuations use the entry age normal method, and an actuarial 7-year smoothing of asset values. The most recent actuarial valuation as of June 30, 2016 used a 7.50% annual investment return assumption, and a 3.25% general inflation assumption.

The last triennial valuation was performed as of June 30, 2013, and another triennial valuation as of June 30, 2016 is currently in progress. A copy of the most recent actuarial valuation report as of June 30, 2016 is available on the SCERS web site at <a href="https://www.scers.org">www.scers.org</a>. A review of the actuarial valuation as of June 30, 2011 was conducted in 2012, and another review is expected to be performed as of June 30, 2016. An annual valuation report will be conducted as of June 30, 2017

#### H. Membership Plans

SCERS is a defined benefit pension plan and provides retirement, disability, and survivors' benefits to qualified employees of the participating employers. Safety

membership includes law enforcement, fire suppression, and other selected classifications as approved by statute. Miscellaneous membership is applicable to all other occupational classifications. The membership plans are briefly summarized on pages 33 through 35 of Exhibit D.

#### **SECTION III - NATURE OF SERVICES REQUIRED**

#### A. General

SCERS is soliciting the services of a qualified firm of certified public accountants to audit its financial statements for the fiscal years ending June 30, 2017 and 2016 and for each of the two (2) subsequent fiscal years. These audits are to be performed in accordance with the provisions contained in this request for proposals.

#### B. Scope of Work to be Performed

SCERS requires the Auditor to express an opinion on the fair presentation of the financial statements in conformity with generally accepted accounting principles. The Auditor shall be responsible for performing certain limited review procedures involving required supplementary information required by the Governmental Accounting Standards Board as mandated by generally accepted auditing standards.

SCERS requires the Auditor to express an opinion on the allocation of Net Pension Liability, deferred outflows and inflows of resources and pension expenses and related notes by employer.

The Auditor will evaluate and report on SCERS' internal control structure, policies and procedures. SCERS' is responsible for the preparation of the Financial Statement footnotes and the Comprehensive Annual Financial Report, however, the Auditor may assist SCERS with the preparation as new technical accounting and reporting requirements arise.

#### C. Auditing Standards to be Followed

To meet the requirements of this RFP, the audit shall be performed in accordance with auditing standards generally accepted in the United States of America. The Auditor must issue an opinion whether the financial statements of SCERS are presented fairly

in all material respects and in conformity with accounting principles generally accepted in the United States of America. A report must also be issued on the Auditor consideration of SCERS' internal controls in accordance with *Government Auditing Standards* and with the "Minimum Audit Requirements and Reporting Guidelines for California Public Retirement Systems," issued by the California State Controller (see Exhibit F).

#### D. Working Records and Reports and Access to Working Records and Reports

All working records and reports, including electronic images and/or hardcopies of documents and spreadsheets, must be retained, at the Auditor's expense, during the term of the engagement and for a minimum of five (5) years thereafter, unless the firm is notified in writing by SCERS of the need to extend the retention period or unless written permission is given by SCERS to dispose of any such records prior to this time. The Auditor will be required to make working records and reports available, upon request, to SCERS, or its designees.

The Auditor shall respond to the reasonable inquiries of successor auditors and allow successor auditors to review working records and reports relating to matters of continuing accounting significance.

#### **SECTION IV - REPORTS TO BE ISSUED**

#### A. Report Examination of Financial Statements

- Following the completion of the audit of each fiscal year's financial statements, the Auditor shall issue a report on the fair presentation of the financial statements in conformity with accounting principles generally accepted in the United States of America.
- The audit report shall contain an opinion regarding the fairness of the financial statements as enumerated by the State Board of Accountancy Rule 58.
- If the type of opinion expressed is not an unmodified opinion, then the Auditor shall make an immediate, written report to The President of the Board of Retirement and the Chief Executive Officer of the Retirement System.

#### B. Management Letter

The Auditor shall prepare a separate report on the internal control structure based on the Auditor's understanding of the control structure and assessment of control risk. The report shall communicate the following elements.

- The scope of the Auditor's work in obtaining an understanding of the internal control structure and in assessing the control risk.
- SCERS' significant internal controls or control structure including the controls established to ensure compliance with laws and regulations that have a material impact on the financial statements and results of the financial audit.
- Reportable conditions found during the audit. A reportable condition, per Statement on Auditing Standards Number 60, is a significant deficiency in the design or operation of the internal control structure, which could adversely affect the organization's ability to record, process, summarize, and report financial data consistent with the assertions of the management in the financial statements. Reportable conditions that are also material weaknesses shall be identified in the report.
- Non-reportable conditions discovered by the auditors shall be reported in a separate letter to management, which shall be referred to in the report(s) on internal controls.

#### **SECTION V - TIME REQUIREMENTS**

#### A. <u>Critical Dates in RFP Process</u>

The following is a list of key dates in the proposal/contract process:

Request for Proposals issued	February 17, 2017
Due Date for Proposal	March 30, 2017
Anticipated date for notifying selected firm	April 28, 2017
Anticipated date for award of contract	May 11, 2017
Preliminary meetings/fieldwork, listing of schedules to be prepared by SCERS, audit confirmations to be mailed.	August – September 2017
Fieldwork begins/Entrance Conference	October 23, 2017
Fieldwork ends/Exit Conference	November 9, 2017
Audit opinion due to SCERS	November 22, 2017
Presentation to Retirement Board	December 20, 2017

#### B. <u>Due Date for Final Audit Report</u>

If financial statement misstatements are discovered, they will be communicated to SCERS management staff for comment and response. Upon conclusion of fieldwork, a summary of uncorrected financial statement misstatements, together with the Auditor's comments regarding materiality both individually and in aggregate, will be delivered directly to the Chief Executive Officer or his designee. The Auditor will also disclose any open items required for resolution so that an unqualified opinion may be issued. If the Auditor does not expect to issue an unqualified opinion, the Auditor must communicate this determination in accordance with Section IV.A. above.

The Chief Executive Officer or his designee will complete review of the summary of financial statement misstatements as expeditiously as possible. It is expected that this process should not exceed one week. During that period, the Auditor should be available for any meetings that may be necessary to discuss the audit reports. Once all issues for discussion are resolved, the final signed report shall be delivered to SCERS for inclusion in the Comprehensive Annual Financial Report. It is anticipated that this process will follow the timetable outlined in Section V.A.

The final report is to be delivered to SCERS' Chief Executive Officer at 980 9<sup>th</sup> Street, Suite 1900, Sacramento, CA 95814. It is preferred that the final report also be delivered in Adobe Acrobat PDF format.

#### SECTION VI - ASSISTANCE TO BE PROVIDED TO THE AUDITOR

#### <u>Assistance During Engagement</u>

SCERS will prepare year-end closing entries, draft financial statements, draft footnotes, and all required supplementary schedules. The Auditor will provide to SCERS management with recommendations and suggestions for improvement during the course of the audit.

SCERS will arrange for reasonable office space, desks, tables and chairs. The Auditor will be provided access to photocopying and scanning equipment and to SCERS' network and financial systems.

## SECTION VII - ENTRANCE AND EXIT CONFERENCES AND RETIREMENT BOARD PRESENTATION

#### A. Entrance conference

Prior to commencing fieldwork, the Auditor will attend an entrance conference with SCERS management. The purpose of this meeting will be to establish and discuss the following:

- The overall liaison for the audit.
- Arrangements for work space and other needs of the Auditor.
- Prior audit or anticipated audit problems.
- The timetable and prioritization for year end work to be performed.
- SCERS responsibilities and schedules required.
- Any special areas of concern.
- Auditor responsibilities.

#### B. Exit conference

The Auditor will attend an exit conference with SCERS Management to review the Final Audit Report, the Management Letter and the Compliance Report. If requested, the Auditor will discuss findings and recommendations from each report with the Board of Retirement.

#### C. Retirement Board Presentation

The Auditor will attend the Retirement Board meeting to present the Final Audit Report, the Management Letter, and the Compliance Report.

#### **SECTION VIII - BIDDING REQUIREMENTS**

Each bidder shall observe the following in preparation and submission of a proposal:

#### A. General

There is no expressed or implied obligation for SCERS to reimburse responding firms for any expenses incurred in preparing proposals in response to this request. SCERS reserves the right to retain all proposals submitted and to use any ideas in a proposal regardless of whether that proposal is selected.

#### B. <u>Preparation of Responses</u>

A response to this RFP must be prepared and submitted according to the specifications set forth in this section, both for content and sequence. Failure to adhere to these specifications may be cause for rejection of the proposal. Any correction or resubmission of a proposal must be submitted prior to the bid submission deadline.

#### C. <u>Submission of Proposals</u>

The bidder will submit one original and five (5) copies of the proposal and any related information to be received at SCERS' office by 4:00 PM on Thursday, March 30, 2017. Proposals received after the submission deadline will not be accepted. Completed proposals must be submitted to:

Kathryn T. Regalia, Chief Operations Officer Sacramento County Employees' Retirement System 980 9<sup>th</sup> Street, Suite 1900 Sacramento, CA 95814 regaliak@saccounty.net All proposals shall be firm for a period of 90 days following the date of submission of proposals.

#### D. Proposal Contents

A proposal shall adhere to the format set forth below. Each of the required sections identified must be addressed and must be specifically labeled. The content and sequence of the proposal will be as follows:

Section	<u>Title</u>
1	Cover Letter
2	Table of Contents
3	Executive Summary
4	Technical Proposal
5	Dollar Cost Bid
6	Additional Data and Attachments

Items 1 through 6 below contain brief descriptions of material that must be included in the proposal.

#### 1. Cover Letter

A maximum one-page cover letter shall include the (a) name of the bidder firm, (b) organizational structure of the firm (e.g., corporation, partnership, etc.), (c) address, telephone number, and web site of the firm's office, (d) name, telephone number, and facsimile number of the firm's representative who is designated as primary liaison to SCERS, (e) name, telephone number, and email address of the representative who is authorized to bind the firm in contract, and (f) date of the proposal.

#### 2. Table of Contents

Immediately following the cover letter, there should be a Table of Contents of the material included in the proposal.

#### 3. Executive Summary

This section should briefly state the bidder's understanding of the work to be done, the commitment to perform the work within the time period, a statement

why the firm believes itself to be best qualified to perform the engagement, and a statement that the proposal is a firm and irrevocable offer for 90 days following the date for submission of proposals.

#### 4. Technical Proposal

#### a. General Requirements

The technical proposal should address all the points outlined in the RFP. The proposal should be prepared by providing a straightforward, concise description of the bidder's capabilities to satisfy the requirements of the RFP. While additional data may be presented, the following subjects, Items (b) through (I) must be included. They represent the criteria for evaluating and analyzing material included in the proposal.

#### b. Independence

The bidder should provide an affirmative statement regarding its independence of SCERS as defined by the U.S. General Accounting Office's Government Auditing Standards.

#### c. License to practice in California

An affirmative statement should be included indicating that the bidder and all assigned key professional staff are properly licensed to practice in California.

#### d. Bidder qualifications and experience

The proposal should state the size of the firm, the size of the firm's governmental audit staff, the location and telephone number of the office from which the work on this engagement is to be performed, and the number and nature of the professional staff to be employed in this engagement on a full or part-time basis.

The bidder is required to provide information on the circumstances and status of any investigation, examination, complaint, disciplinary action or other proceeding commenced by any state or federal regulatory body or professional organization during the past three (3) years against the bidding firm.

The bidder is required to provide information on the circumstances and status of any pending litigation or litigation that has taken place against the bidding firm during the pending litigation or litigation that has taken place against the bidding firm during the past three years.

#### e. Audit Staff qualifications and experience

The bidder should identify the principal supervisory and management staff, including engagement partners, managers, supervisory seniors and specialists, who would be assigned to the engagement and indicate whether each person as applicable, is licensed to practice as a certified public accountant in California.

The bidder should provide a statement of the qualifications of the key individuals so identified, including their experience in the auditing of public retirement systems, other employee benefit plans, systems applications, governmental units, auditing in general, and any specialized expertise such individuals may have which is applicable to this engagement (i.e., that pertaining to pension accounting and actuarial science, cash management, investments, etc.).

Information should be included on total continuing professional education hours (divided into governmental and non-governmental) for firm for the past two (2) years, and on membership in professional organizations relevant to the performance of this audit.

The bidder should identify the extent to which partners, managers, supervisory staff, specialists and other staff will have continuity in their audits with SCERS for the period of the contract.

Engagement partners, managers, other supervisory staff and specialists may be changed if those personnel leave the firm, are promoted or are assigned to another office. These personnel may be changed for other reasons with the express prior written permission of SCERS. However, in either case, SCERS retains the right to approve or reject replacements.

#### f. Similar engagements with other public retirement systems

For the bidder's office that will be assigned responsibility for the audit, list the most significant engagements performed in the last four years that are similar to the engagement described in this RFP. List prior engagements auditing 1937 Act public retirement systems first, followed by other public retirement systems, and finally other government units. Indicate the scope of the work, date, engagement partners, total hours and the name and telephone number of the principal client contact.

#### g. Liaison with other entities

The bidder should describe arrangements that it has with regard to liaison with or access to offices of the state and federal governments or other entities relevant to this engagement for the purpose of obtaining prompt responses to inquiries arising from technical or procedural questions developed in the course of the examination.

#### h. Specific audit approach

The proposal should set forth the bidder's understanding of the engagement requirements, and a work plan, including an explanation of the audit methodology to be followed, to perform the services required in Sections III through VII of this RFP. The bidder should not necessarily limit the bid response to the performance of the services in Sections III through VII, but should outline any additional services if the bidder deems them necessary to accomplish the audits. Additional services should be clearly marked as such, with their costs separately stated in the Sealed Dollar Cost Bid (Section VIII.D5.d. below).

Bidders will be required to provide the following information on their audit approach:

- Proposed segmentation of the engagement
- Level of staff and estimated number of hours to be assigned to each proposed segment of the engagement
- · Proposed supervisory review and direction
- Approach to be taken to gain and document an understanding of SCERS' internal control structure
- Approach to be taken in determining laws and regulations that will be subject to audit test work

#### i. Procedures for resolving potential audit problems

The proposal should describe the bidder's approach to resolving potential problems that may be encountered during the performance of the audit, and any special assistance that may be requested from SCERS.

#### 5. Sealed Dollar (\$) Cost Bid

#### a. Total not-to-exceed Maximum Price

The sealed dollar cost bid should contain all pricing information relative to performing the audit engagement as described in this request for proposal. The total not-to-exceed maximum price to be bid is to contain all direct and indirect costs including all out-of-pocket expenses.

SCERS will not be responsible for expenses incurred in preparing and submitting the proposal or the sealed dollar cost bid. Such costs should not be included in the proposal.

The first page of the sealed dollar cost bid should include the following information:

- Name of the firm.
- Certification that the person signing the proposal is entitled to represent the firm, empowered to submit the bid, and authorized to sign a contract with SCERS.
- A Total Not-To-Exceed Maximum Price for each of three (3) years during the engagement (separately stated for each year).

#### b. Rates by staff classification and anticipated hours

The second page of the sealed dollar cost bid should include schedules of professional fees and expenses, that supports the total not-to-exceed maximum price. A separate schedule should be prepared for each year's audit. If needed, a separate schedule of additional services should be prepared for each year's audit.

# c. Out-of-pocket expenses included in the total not-to-exceed maximum price and reimbursement rates

All estimated out-of-pocket expenses to be reimbursed, if any should be presented. All expense reimbursements will be charged against the total not-to-exceed maximum price submitted by the bidder.

#### d. Rates for additional professional services

If it should become necessary for SCERS to request the auditor to render any additional services to either supplement the services requested in this RFP or to perform additional work as a result of the specific recommendations included in any report issued on this engagement, then such additional work shall be performed as set forth in an addendum to the contract between SCERS and the bidder. Any such additional work agreed to between SCERS and the bidder shall be performed at the same rates as set forth in the schedule of fees and expenses included in the sealed dollar cost bid.

#### e. Manner of payment

Progress payments will be made on the basis of hours of work completed during the course of the engagement and out-of-pocket expenses incurred in accordance with the firm's cost bid proposal. Interim billings shall cover a period of not less than a calendar month.

#### 6. Additional data and attachments

Material and data not specifically requested for evaluation, but which the bidder wishes to submit may be included, but only in the "Additional Data" section. The following are examples of the type of data that may be included in this section:

- Standard sales brochures and promotional material with minimal technical content.
- Pictorial material

#### SECTION IX - EVALUATION AND SELECTION PROCEDURES

#### A. General

This section describes the guidelines to be used for analyzing and evaluating proposals. SCERS reserves the right to evaluate all factors deemed appropriate, whether or not such factors have been stated in this section.

#### **B.** Evaluation Committee

Proposals submitted will be evaluated by the Evaluation Committee consisting of the Chief Executive Officer, Chief Operations Officer, General Counsel, and a member of the Retirement Board.

#### C. Review of Proposals

Proposals will be evaluated using a two-step process. Bidders meeting the mandatory criteria listed below will then have their proposals evaluated and scored for technical qualifications and price.

Each member of the Evaluation Committee will evaluate the individual proposals using a scoring system. The full Evaluation Committee will then convene to review and discuss these evaluations to arrive at a final score.

The evaluation criteria to be used in the selection process will include, but may not be limited to, the following:

#### 1. Mandatory Elements

- The bidder is independent and licensed to practice in California.
- The bidder has no conflict of interest with regard to any other work performed by the bidder.
- The bidder adheres to the instructions in this RFP.

#### 2. Technical Qualifications and Price

- Comprehensiveness of financial audit work plan
- Comprehensiveness of agreed-upon procedures work plan
- Completeness of deliverables
- Ability to meet proposed timetable
- Adequacy of proposed staffing plan
- Adequacy of supervisory review and direction
- Approach to be taken to gain and document an understanding of the internal control structure
- Approach to determine relevant laws and regulations

(Weight – 35%)

#### 3. Bidder's Experience and Capabilities

- Relevant experience and technical skills
- Quality of bidder's management support personnel to be available for technical consultation
- Financial stability

(Weight – 15%)

#### 4. Assigned Professional Personnel

- General experience
- Experience relevant to this engagement
- Professional and academic qualifications
- Adequate continuing professional education within the last two years

(Weight – 30%)

#### 5. Audit Cost

- Hours
- Hourly Rate
- Total not-to-exceed maximum price

(Weight – 20%)

# COST <u>WILL NOT</u> BE THE PRIMARY FACTOR IN THE ELECTION OF AN AUDIT FIRM.

#### 6. Oral Presentations

The Evaluation Committee will select a firm, which will be recommended to the Board of Retirement. The Board of Retirement may request an oral presentation to answer any questions it may have on a recommended firm's proposal.

#### 7. Final Selection

The Board of Retirement will approve or reject the recommended firm. It is anticipated that a firm will be selected by May 11, 2017.

#### 8. Right to Reject Proposals

Submission of a proposal indicates acceptance by the firm of the conditions contained in this request for proposal unless clearly and specifically noted in the proposal submitted and confirmed in the contract between SCERS and the firm selected.

SCERS reserves the right without prejudice to reject any or all proposals.

#### SECTION X – CONTRACT TERMS AND CONDITIONS

CONTRACTOR agrees to the terms set forth in the Form Agreement as attached as Exhibit A to this Request for Proposals unless specifically noted in CONTRACTOR'S proposal. Please read it carefully. If any objections to the form agreement (see Exhibit A) are noted in CONTRACTOR'S proposal, CONTRACTOR must submit substitute language that will be acceptable to CONTRACTOR. Failure to submit substitute language will be deemed acceptance of the form agreement."

#### **EXHIBIT A**

#### FORM AUDITING SERVICES AGREEMENT

THIS AUDITING SERVICES AGREEMENT (Agreement) is entered into by and between the Sacramento County Employees' Retirement System (SCERS), a public employees retirement system established and maintained pursuant to the County Employees' Retirement Law of 1937, as amended, and \_\_\_\_\_\_\_\_, Certified Public Accountants, (Contractor), as of July 1, 2017.

WHEREAS, pursuant to Government Code section 31593, and related provisions of law, SCERS' Board of Retirement (Board) has determined that it is in the best interests of SCERS, its members and beneficiaries to appoint Contractor to provide independent audit services, and

WHEREAS, Contractor is ready, willing and able to accept this appointment; and

WHEREAS, Government Code section 31593 requires the Board to obtain an audit of SCERS once every twelve months, and authorizes retention of the services of a certified public accountant; and

WHEREAS, Contractor is qualified to be a "certified public accountant" and is qualified to perform an audit in accordance with the GAAS as set forth by the AICPA, and with the "Minimum Audit Requirements and Reporting Guidelines for California Public Retirement Systems," issued by the California State Controller;

NOW, THEREFORE, in consideration of the covenants and conditions set forth herein, SCERS and Contractor hereby agree as follows:

#### 1. Retention.

SCERS hereby retains Contractor and Contractor hereby agrees to serve as SCERS independent auditor to perform the services specified in SCERS' Request for Proposal for Professional Auditing Services. A copy of the Request for Proposal is attached hereto, marked "Exhibit 1" and made a part hereof by this reference.

#### 2. Performance Requirements.

The description of the records to be audited, services performed, reports issued and time requirements shall be as specified in Exhibit 1. Contractor shall provide the services in the manner and with the personnel described in its Proposal dated \_\_\_\_\_\_, for the fiscal years ending June 30, 2017, 2018 and 2019.

Services shall include but not be limited to: a) a full financial statement audit in accordance with Generally Accepted Auditing Standards (GAAS), b) preparation of all

applicable reports related to the financial statement audit, as required by GAAS, and c) in-person presentation of all required reports to the SCERS Board of Retirement.

A copy of said Proposal is attached hereto, marked "Exhibit 2" and made a part hereof by this reference.

The fees for such services shall be as specified in Exhibit 2 to be paid upon Board's acceptance of the audit of each fiscal year.

#### 3. Term.

The term of this agreement shall commence July 1, 2017, and shall continue until June 30, 2020, unless otherwise extended or terminated in accordance with the provisions of this Agreement. This Agreement may be extended by mutual agreement.

#### 4. Termination.

This Agreement may be terminated at any time by either party upon thirty (30) days' prior written notice. Upon service of said written notice Contractor shall immediately suspend and terminate all work under this Agreement and use all efforts to mitigate expenses and obligations hereunder. A final accounting shall be prepared by Contractor and delivered to SCERS within thirty (30) days after the effective date of the termination.

#### 5. Independent Contractor Status.

In performing under this Agreement, Contractor shall at all times act in the capacity of an independent contractor. This Agreement is not intended, and shall not be construed, to create the relationship of agent, servant, employee, partnership, joint venture, or association as between Contractor and SCERS. Nothing in this Agreement shall cause SCERS to be responsible for any action, omission or inaction of Contractor. For all purposes, including but not limited to Workers' Compensation liability, Contractor understands and agrees that all persons furnishing services to SCERS pursuant to this Agreement are deemed employees solely of Contractor and not of SCERS.

#### 6. Indemnification and Insurance.

- (a). Indemnification. Contractor will indemnify, defend and hold harmless SCERS and its officers, employees and agents from and against any and all claims, suits, actions, damage and costs of every kind and nature which may be brought for or on account of any injuries, death or damages sustained by any person or property due to the negligent acts or omissions of the Contractor, or any of its officers, employees, assignees or representatives in the performance of this Agreement.
- (b). Insurance. Contractor shall provide and maintain at its own expense during the term of this Agreement the following programs of insurance covering its

operations, from insurers reasonably satisfactory to SCERS. Such insurance shall be primary and not contributing with any other insurance maintained by SCERS, shall name SCERS as an additional insured, and each policy shall provide that it may not be modified or terminated (other than for failure to pay the premium) without at least thirty (30) days prior written notice to SCERS and without at least ten (10) days notice of termination for failure to pay the premium. On or before the commencement date of this Agreement, evidence of such insurance shall be provided to SCERS' Chief Operations Officer in the form of a certificate of insurance. Such certificate shall describe the nature, amount and term of the insurance provided. Failure by Contractor to procure or maintain the insurance described in Exhibit 3 shall constitute a material breach upon which SCERS may immediately terminate this Agreement for default.

#### 7. Confidentiality.

Contractor acknowledges that when performing under this Agreement, Contractor may be exposed to the records of SCERS members and that such records are considered confidential and protected from public disclosure by law. Contractor shall maintain the confidentiality of all such records according to all applicable federal, state, county and local laws, regulations, ordinances and directives relating to confidentiality. Contractor shall inform all of its Agents of the confidentiality provisions of this Agreement.

#### 8. Assignment.

Neither party may assign this Agreement, in whole or in part, nor delegate except as contemplated herein the performance of any of its duties under this Agreement, without the prior written consent of the other, which consent may be granted or withheld in such other party's sole discretion. No assignment permitted hereunder shall release either party of any of its obligations or alter any of its primary obligations to be performed under the Agreement, unless such consent expressly provides for such release. Any attempted assignment or delegation in violation of this provision by a party hereto shall be void.

#### 9. Notices.

All notices, requests, demands or other communications required or desired to be given hereunder or under any law now or hereafter in effect shall be in writing. Such notices shall be deemed to have been given if delivered by facsimile with telephone confirmation of receipt, or by overnight courier, or if mailed by first class registered or certified mail, postage prepaid, and addressed as follows (or to such other address as either party from time to time may specify in writing to the other party in accordance with this notice provision):

If to SCERS: Kathryn T. Regalia,

Chief Operations Officer

Sacramento County Employees' Retirement System

980 9th Street, Suite 1900 Sacramento, CA 95814

Telephone: 916.874.9088

Email: RegaliaK@SacCounty.net

If to Contractor:	
-------------------	--

Telephone: Facsimile:

#### 10. Compliance with Laws.

Contractor shall observe and comply with all applicable laws and regulations of the United States, the State of California and the County of Sacramento, as well as any other rules, regulations, or directives imposed by the SCERS' Board of Retirement or the County Board of Supervisors. This Agreement shall be construed in accordance with and governed by the laws of the State of California. Any action or proceeding arising out of this Agreement shall be filed in a California state court or federal district court located in Sacramento, California.

#### 11. Entire Agreement.

This Agreement constitutes the entire contract between SCERS and Contractor with respect to the appointment and retention of Contractor as the investment Contractor for the Account, and no modification or amendment to this Agreement shall be valid unless such modification or amendment is set forth in writing and is signed by both parties hereto.

#### 12. Severability.

If any provision of this Agreement is held by any court to be invalid, void or unenforceable, in whole or in part, the other provisions shall remain unaffected and shall continue in full force and effect.

#### 13. Waiver.

The waiver of any breach of any provision of this Agreement by either party shall not constitute a waiver of any preceding or subsequent breach of such provision or of any other provision of this Agreement. The failure or delay of either party to exercise any right given to the party under this Agreement shall not constitute a waiver of such

right, nor shall any partial exercise of any right given hereunder preclude further exercise of such right.

#### 14. Execution in Counterparts.

This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same instrument.

#### 15. Time of the Essence.

Time is of the essence in respect to all provisions of this Agreement that specify a time for performance.

#### 16. Force Majeure.

Neither Contractor nor SCERS will be deemed in default of this Agreement if the failure to perform this Agreement arises from causes beyond the control and without the fault or negligence of Contractor or SCERS, as the case may be. Such causes may include, but are not restricted to, acts of God or of the public enemy, acts of the non-defaulting party hereto, acts of the Federal or State government (including all subdivisions thereof) in its sovereign capacity, fires and floods; but in every case the failure to perform must be beyond the control and without the fault or negligence of Contractor or SCERS, as the case may be.

#### 17. Dispute Resolution - Attorneys' Fees.

If either or both of the parties initiate any litigation or alternative dispute resolution process to enforce or interpret any of the provisions of this Agreement, then the party not substantially prevailing shall pay to the substantially prevailing party all reasonable costs and expenses incurred therein by the substantially prevailing party including, without limitation, reasonable attorneys' fees, and expenses incurred to resolve the dispute and enforce the final judgment or decision. These expenses shall be in addition to any other relief to which the substantially prevailing party may be entitled and shall be included in and as part of the judgment or decision rendered in such litigation or alternative dispute resolution process.

#### 18. Authorized SCERS' Personnel.

Upon execution of this Agreement, SCERS' Chief Operations Officer shall provide Contractor with a list of authorized SCERS personnel, who will be permitted to communicate with Contractor on SCERS behalf.

#### 19. Communications.

Any contact Contractor has with County or SCERS board members, officers, employees, Agents or representatives other than authorized SCERS personnel with respect to a financial transaction, solicitation or gift shall be promptly reported by telephone and in writing to SCERS' Chief Executive Officer.

#### 20. Gratuities.

Contractor has not offered or given any gratuities in the form of gifts, entertainment or otherwise, to any officer, fiduciary, or employee of Contractor, SCERS, or the County of Sacramento with a view toward securing this Agreement. Any gift or payment made by Contractor to County or SCERS or their board members, officers, employees, Agents, representatives or anyone directly or indirectly acting on behalf of such parties shall be promptly reported by telephone and in writing to SCERS' Chief Executive Officer.

#### 21. Certification.

On or before February 1 of each year Contractor shall furnish an annual certification regarding the contacts and gifts described in paragraphs 19 and 20 to SCERS' Chief Executive Officer. Such certification shall describe each and every such contact, solicitation, or gift, the persons involved, the value of the gift, and the surrounding facts. The certification shall state that except as specifically described in the certification, no contact or gift described in such paragraphs has been made.

IN WITNESS WHEREOF, SCERS and Contractor have caused this Agreement to be duly executed by their duly authorized representatives.

Sacramento County Employees' Retirement System

Dated:

By:

President

Attest:

Secretary of the Sacramento County
Employees' Retirement System Board

"Contractor"

Dated:

By:

# EXHIBIT 1 REQUEST FOR PROPOSALS

# EXHIBIT 2 CONTRACTOR'S PROPOSAL

#### **EXHIBIT 3**

#### SCERS INSURANCE REQUIREMENTS FOR CONTRACTORS OR CONSULTANTS

Without limiting Contractor's indemnification, Contractor shall procure and maintain for the duration of the Agreement, insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the Agreement by the Contractor, its agents, representatives or employees. SCERS shall retain the right at any time to review the coverage, form, and amount of the insurance required hereby. If in the opinion of the SCERS' Risk Manager, insurance provisions in these requirements do not provide adequate protection for SCERS, SCERS may require Contractor to obtain insurance sufficient in coverage, form and amount to provide adequate protection. SCERS' requirements shall be reasonable but shall be imposed to assure protection from and against the kind and extent of risks that exist at the time a change in insurance is required.

#### Verification of Coverage

Copies of required endorsements must be attached to provided certificates. SCERS' Risk Manager may approve self-insurance programs in lieu of required policies of insurance if, in the opinion of the Risk Manager, the interests of the SCERS is adequately protected. All certificates, evidences of self-insurance, and additional insured endorsements are to be received and approved by the SCERS before performance commences. SCERS reserves the right to require that Contractor provide complete, certified copies of any policy of insurance including endorsements offered in compliance with these specifications.

#### I. <u>Minimum Scope of Insurance</u>

Coverage shall be at least as broad as:

- GENERAL LIABILITY: Insurance Services Office's Commercial General Liability occurrence coverage form CG 0001. Including, but not limited to Premises/Operations, Products/Completed Operations, Contractual, and Personal & Advertising Injury, without additional exclusions or limitations, unless approved by SCERS' Risk Manager.
- 2. AUTOMOBILE LIABILITY: Insurance Services Office's Commercial Automobile Liability coverage form CA 0001.
  - a. Commercial Automobile Liability: auto coverage symbol "1" (any auto) for corporate/business owned vehicles. If there are no owned or leased vehicles, symbols 8 and 9 for non-owned and hired autos shall apply.
  - Personal Lines automobile insurance shall apply if vehicles are individually owned.
- 3. WORKERS' COMPENSATION: Statutory requirements of the State of

California and Employer's Liability Insurance.

- 4. PROFESSIONAL LIABILITY or Errors and Omissions Liability insurance appropriate to the Contractor's profession or services.
- 5. UMBRELLA or Excess Liability policies are acceptable where the need for higher liability limits is noted in the Minimum Limits of Insurance and shall provide liability coverages that at least follow form over the underlying insurance requirements where necessary for Commercial General Liability, Commercial Automobile Liability, Employers' Liability, and any other liability coverage (other than Professional Liability) designated under the Minimum Scope of Insurance.

#### Minimum Limits of Insurance

Contractor shall maintain limits no less than:

1. General Liability shall be on an Occurrence basis (as opposed to Claims

Made basis). Minimum limits and structure shall be:

General Aggregate: \$2,000,000
Products Comp/Op Aggregate: \$2,000,000
Personal & Adv. Injury: \$1,000,000
Each Occurrence: \$1,000,000

- 2. Automobile Liability:
  - a. Commercial Automobile Liability for Corporate/business owned vehicles including non-owned and hired, \$1,000,000 Combined Single Limit.
  - b. Personal Lines Automobile Liability for Individually owned vehicles, \$250,000 per person, \$500,000 each accident, \$100,000 property damage.
- 3. Workers' Compensation: Statutory.
- 4. Employer's Liability: \$1,000,000 per accident for bodily injury or disease.
- 5. Professional Liability or Errors and Omissions Liability: \$2,000,000 per claim and aggregate.

#### II. <u>Deductibles and Self-Insured Retention</u>

Any deductibles or self-insured retention that apply to any insurance required by this

Agreement must be declared and approved in writing by the County.

#### **Claims Made Professional Liability Insurance**

If professional liability coverage is written on a Claims Made form:

1. The "Retro Date" must be shown, and must be on or before the date of the

Agreement or the beginning of Agreement performance by Contractor.

- 2. Insurance must be maintained and evidence of insurance must be provided for at least one (1) year after completion of the Agreement.
- 3. If coverage is cancelled or non-renewed, and not replaced with another claims made policy form with a "Retro Date" prior to the contract effective date, the Contractor must purchase "extended reporting" coverage for a minimum of one (1) year after completion of the Agreement.

#### **Other Insurance Provisions**

The insurance policies required in this Agreement are to contain, or be endorsed to contain, as applicable, the following provisions:

#### **All Policies:**

- 1. <u>ACCEPTABILITY OF INSURERS:</u> Insurance is to be placed with insurers with a current A.M. Best's rating of no less than **A:VII.** SCERS' Risk Manager may waive or alter this requirement, or accept self-insurance in lieu of any required policy of insurance if, in the opinion of the Risk Manager, the interests of SCERS are adequately protected.
- 2. MAINTENANCE OF INSURANCE COVERAGE: The Contractor shall maintain all insurance coverages in place at all times and provide SCERS with evidence of each policy's renewal ten (10) days in advance of its anniversary date. Each insurance policy required by this Agreement shall be endorsed to state that coverage shall not be canceled by either party except after thirty (30) days' written notice for cancellation or sixty (60) days' written notice for non-renewal has been given to SCERS. For non-payment of premium 10 days prior written notice of cancellation is required.

#### Commercial General Liability and/or Commercial Automobile Liability:

- ADDITIONAL INSURED STATUS: SCERS, its officers, directors, officials, employees, and volunteers are to be endorsed as additional insurers as respects: liability arising out of activities performed by or on behalf of the Contractor; products and completed operations of the Contractor; premises owned, occupied or used by the Contractor; or automobiles owned, leased, hired or borrowed by the Contractor. The coverage shall contain no endorsed limitations on the scope of protection afforded to the SCERS, its officers, directors, officials, employees, or volunteers.
- 2. <u>CIVIL CODE PROVISION:</u> Coverage shall not extend to any indemnity coverage for the active negligence of the additional insured in any case where an agreement to indemnify the additional insured would be invalid under Subdivision (b) of Section 2782 of the Civil Code.
- 3. <u>PRIMARY INSURANCE:</u> For any claims related to this agreement, the Contractor's insurance coverage shall be endorsed to be primary insurance as respects SCERS, its officers, officials, employees and volunteers. Any insurance or self-insurance maintained by SCERS, its officers, directors, officials, employees, or volunteers shall be excess of the Contractor's insurance and shall not contribute with it.
- 4. <u>SEVERABILITY OF INTEREST:</u> The Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
- 5. <u>SUBCONTRACTORS:</u> Contractor shall be responsible for the acts and omissions of all its subcontractors and shall require all its subcontractors to maintain adequate insurance

#### **Professional Liability:**

<u>PROFESSIONAL LIABILITY PROVISION:</u> Any professional liability or errors and omissions policy required hereunder shall apply to any claims, losses, liabilities, or damages, demands and actions arising out of or resulting from professional services provided under this Agreement.

#### **Workers' Compensation:**

WORKERS' COMPENSATION WAIVER OF SUBROGATION: The workers' compensation policy required hereunder shall be endorsed to state that the workers' compensation carrier waives its right of subrogation against SCERS, its officers, directors, officials, employees, agents or volunteers, which might arise by reason of payment under such policy in connection with performance under this Agreement by the Contractor.

#### **Notification of Claim**

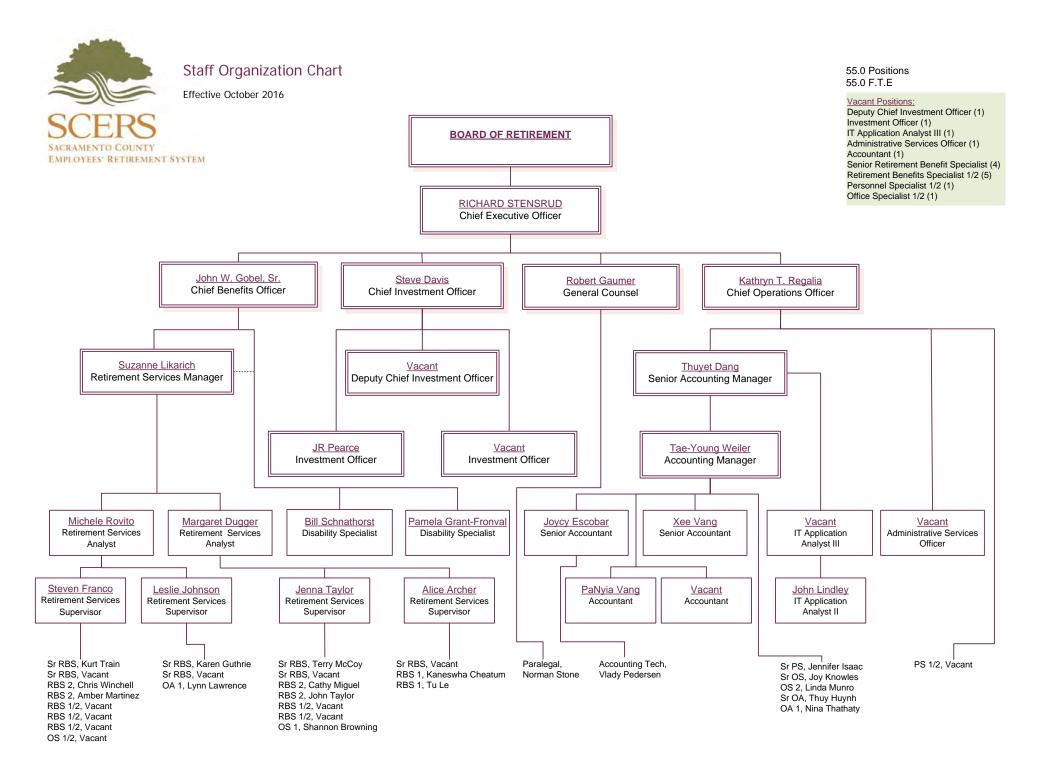
If any claim for damages is filed with Contractor or if any lawsuit is instituted against Contractor, that arise out of or are in any way connected with Contractor's performance under this Agreement and that in any way, directly or indirectly, contingently or otherwise, affect or might reasonably affect SCERS, Contractor shall give prompt and timely notice thereof to SCERS. Notice shall not be considered prompt and timely if not given within thirty (30) days following the date of receipt of a claim or ten (10) days following the date of service of process of a lawsuit.

#### **EXHIBIT B**

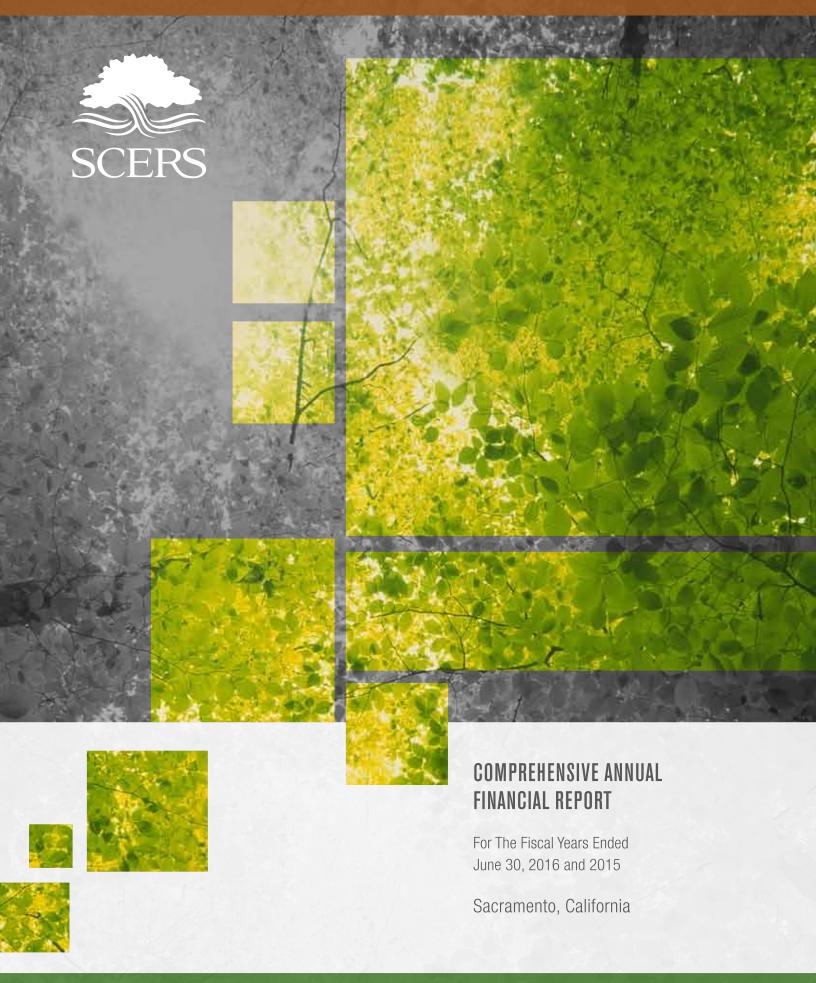
### **Contact Information for Key Personnel**

Name and Title	E-mail Address	<u>Telephone</u>
Richard Stensrud		
Chief Executive Officer	StensrudR@SacCounty.net	(916) 874-9119
Kathryn T. Regalia		
Chief Operations Officer	RegaliaK@SacCounty.net	(916) 874-9088

# EXHIBIT C ORGANIZATION CHART



# EXHIBIT D COMPREHENSIVE ANNUAL FINANCIAL REPORT







#### **COMPREHENSIVE ANNUAL FINANCIAL REPORT**

For the Fiscal Years Ended June 30, 2016 and 2015

Issued by:

#### RICHARD STENSRUD

Chief Executive Officer

KATHRYN T. REGALIA, CPA, CGMA

Chief Operations Officer

#### THUYET DANG

Senior Accounting Manager

SACRAMENTO COUNTY
EMPLOYEES' RETIREMENT SYSTEM

980 9th Street, Suite 1900 Sacramento, CA 95814

WWW.SCERS.ORG



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#### LETTER OF TRANSMITTAL



Executive Staff
Richard Stensrud
Chief Executive Officer
Steve Davis
Chief Investment Officer
Robert L. Gaumer
General Counsel
Kathryn T. Regalia
Chief Operations Officer
John W. Gobel Sr.
Chief Benefits Officer

December 2, 2016

Board of Retirement Sacramento County Employees' Retirement System 980 9th Street, Suite 1900 Sacramento, CA 95814

Dear Board Members:

As Chief Executive Officer of the Sacramento County Employees' Retirement System ("SCERS" or the "System"), I am pleased to present this Comprehensive Annual Financial Report ("CAFR" or the "Report") for the fiscal years ended June 30, 2016 and 2015.

#### The System

SCERS is a cost-sharing multiple-employer public employee retirement system, enacted and administered in accordance with the provisions of the County Employees Retirement Law of 1937 (California Government Code Section 31450, et seq.) ("1937 Act") and the California Public Employees' Pension Reform Act of 2013 ("CalPEPRA"). Since its establishment by the Sacramento County Board of Supervisors in 1941, SCERS has provided retirement, disability, and survivors' benefits to eligible participants of the System. Under Article XVI, Section 17 of the Constitution of the State of California, the SCERS Board of Retirement is vested with plenary authority and fiduciary responsibility for the investment of monies and the administration of the System. Together, the provisions of the State Constitution and the 1937 Act establish SCERS as a separate and independent governmental entity from the public employers that participate in SCERS. At June 30, 2016, the County of Sacramento; Superior Court of California, County of Sacramento; and eleven Special Districts participated in SCERS.

#### The Comprehensive Annual Financial Report

Responsibility for both the accuracy of the data and the completeness and fairness of the presentation in this CAFR rests with the management of the System. To the best of management's knowledge and belief, the enclosed data is accurate in all material respects and is reported in a manner designed to present fairly the financial position and results of operations of the System.

I trust that readers of this Report and participants of the System will find this information helpful in understanding SCERS and its commitment to financial integrity and participant service.

#### SCERS Mission Statement and Core Values

We are dedicated to providing the highest level of retirement services and managing System resources in an effective and prudent manner.

In fulfilling our mission as a retirement system, we are committed to:

- ♦ The highest levels of professionalism and fiduciary responsibility
- ♦ Acting with integrity
- ♦ Competent, courteous and respectful service to all
- ♦ Open and fair processes
- ♦ Safeguarding confidential information
- ♦ Cost-effective operations
- ♦ Stable funding and minimal contribution volatility
- ♦ Effective communication and helpful education
- ♦ Maintaining a highly competent and committed staff
- ♦ Continuous improvement
- ♦ Planning strategically for the future

#### Accounting System and Reports

Management of SCERS is responsible for establishing and maintaining internal controls designed to ensure that the System's assets are protected from loss, theft, or misuse. Responsibility for the accuracy, completeness, and fair presentation of information, and all disclosures in this CAFR and in the System's records, rests with SCERS' management. Macias Gini & O'Connell LLP, a certified public accounting firm, has audited the financial statements and related disclosures. The financial statement audit provides reasonable assurance that SCERS' financial statements are presented in conformity with accounting principles generally accepted in the United States and are free from material misstatements. The internal controls are designed to provide reasonable, but not absolute, assurance that these objectives are met. The concept of reasonable assurance recognizes that: (1) The cost of a control should not exceed the benefits likely to be derived; and (2) The assessment of costs and benefits requires estimates and judgments by management.

This report has been prepared in accordance with generally accepted accounting principles ("GAAP") as promulgated by the Governmental Accounting Standards Board ("GASB"). GAAP requires that management provide a narrative introduction, overview, and analysis to accompany the basic financial statements in the form of management's discussion and analysis ("MD&A"). This letter of transmittal is designed to complement the MD&A and should be read in conjunction with it. The System's MD&A can be found immediately following the independent auditor's report.

#### Investments – General Authority and SCERS

Article XVI, Section 17 of the Constitution of the State of California provides that "...notwithstanding any other provisions of law or this Constitution, the Retirement Board of a public pension or retirement system shall have plenary authority and fiduciary responsibility for investment of monies and administration of the system..." Article XVI, Section 17(a) further provides that "...the Retirement Board of a public pension or retirement system shall have sole and exclusive fiduciary responsibility over the assets..."

SCERS maintains an overall investment policy designed to achieve a diversified investment portfolio. An integral part of the investment policy is the strategic asset allocation, which is designed to provide an optimal mix of asset classes with return expectations that correspond to expected liabilities. The strategic asset allocation also emphasizes maximum diversification of the portfolio to protect the System from the possibility that a particular asset class may experience poor investment performance in a given period.

#### LETTER OF TRANSMITTAL (CONTINUED)

In 2011, the SCERS Board approved an asset allocation model designed to lower the overall risk of SCERS' portfolio by increasing the allocation to asset classes that produce greater diversification and decreasing the equity risk exposure. During fiscal year 2015-2016, SCERS continued the implementation of the asset allocation model, and in addition, initiated a new asset/liability study.

For the fiscal year ended June 30, 2016, SCERS' investments provided a (0.6%) rate of return (gross of fees), compared to the investment policy benchmark return of 1.5%.

More detailed information regarding SCERS' strategic asset allocation, professional investment advisors, and investment performance can be found in the Investment Section of this Report.

#### **Actuarial Funding Status**

SCERS' overall funding objective is to meet long-term benefit promises by maintaining a well-funded plan status through a combination of superior investment returns and employer and employee contributions which are both minimized and maintained as level as possible for each generation of active members. The greater the level of overall plan funding, the larger the ratio of assets accumulated to the actuarial accrued liability and the greater the investment potential. The advantage of a well-funded plan is that the benefits earned by participants are funded during their working careers and not by future generations of taxpayers.

To help reduce year-to-year volatility in employer contribution rates due to fluctuations in investment performance, SCERS smooths the calculation of actuarial assets over a rolling seven-year period. This not only stabilizes contribution rates but also improves the ability of the employer to plan for possible future increases or decreases in the rates.

SCERS engaged an independent actuarial consulting firm, Segal Consulting, to conduct its annual actuarial valuation as of June 30, 2016. Triennially, the System requests that its actuary perform an analysis of the appropriateness of all economic and non-economic assumptions. The most recent triennial analysis was performed as of June 30, 2013, and as a result of that analysis, the Board of Retirement approved certain changes to the actuarial assumptions, which were incorporated in the subsequent actuarial valuations including the valuation as of June 30, 2016.

At June 30, 2016, SCERS' funding ratio was 87.3%, with the actuarial value of assets totaling \$8.236 billion and the actuarial accrued liability totaling \$9.436 billion. The increase in the funding ratio (up from 86.8% as of June 30, 2015) was mainly due to lower-than-expected active employee salary growth and cost-of-living adjustments. Deferred losses under the smoothing methodology exceeded deferred gains by \$555.5 million as of June 30, 2016. Deferred investment gains/(losses) are amortized over a rolling seven-year period.

#### **Budget**

The Board of Retirement approves SCERS' annual budget. The 1937 Act limits SCERS' annual administrative expenses, excluding the costs of administration for computer software and hardware and computer technology consulting services ("IT costs"), to twenty-one hundredths of one percent (0.21%) of the System's actuarial accrued liability. SCERS' administrative expenses have historically been below the limitation. Administrative expenses, excluding IT costs, were \$5.5 million and \$5.2 million for the years ended June 30, 2016 and June 30, 2015, respectively. SCERS administrative expenses for both years were 0.06% of the System's actuarial accrued liability.

#### Significant Events

The following are significant events which occurred during the fiscal year:

- Continued the implementation of the 2014-2018 Strategic Plan goals and objectives.
- Continued to assess SCERS' information technology system needs, including possible modifications
  and enhancements of SCERS' systems to accommodate operational needs, and strategically planning
  information technological needs. Engaged Linea Solutions, Inc. to provide SCERS with consulting
  services related to pension administration and financial systems evaluation, procurement and
  implementation, and initiated the assessment phase of the IT Modernization Program.
- Continued to work with Sacramento County Department of Personnel Services and Department of Technology (DTech) to design and implement the retirement rate redesign for the additional cost-sharing arrangements negotiated between the County and recognized employee organizations.
- Began working with Orangevale Recreation and Park District to move toward a 50/50 normal costsharing arrangement in which the employees begin paying towards 50% of the combined employee and employer normal cost over the next two fiscal years.
- Worked with Sacramento Metropolitan Fire District to determine a terminal withdrawal liability.
- Worked with Sacramento County Voter Registration and Elections to conduct elections for the Board
  of Retirement in September 2015; conducted a concurrent election for the remaining unexpired term of
  the vacant Miscellaneous Board Representative whose term begins January 1, 2016 and an election
  for the Safety and Alternate Safety Board Representatives for the term beginning January 1, 2016.
- Conducted and reported on the final compensation review process mandated by the California Public Employees' Pension Reform Act of 2013 (CalPEPRA).
- Conferred with participating employers regarding retired annuitant practices and reviewed additional post retirement employment restrictions imposed by CalPEPRA.
- Initiated submission of a renewal of qualified plan status with the Internal Revenue Service.
- Initiated a review of the policies and practices used by SCERS participating employers with respect to enrolling eligible employees in SCERS.
- Initiated an asset allocation study for SCERS.
- Conducted and completed an emerging markets all-cap equity search within SCERS' International Equity asset class.
- Initiated a large cap international developed markets search within SCERS' International Equity asset class.
- Identified, performed due diligence and made direct investments in SCERS' Private Equity, Real Assets and Opportunities asset classes.
- Assessed the need for the addition of a strategic partner for segments of the Private Equity and Real Assets asset classes.
- Presented the annual reports and annual investment plans for the Private Equity and Real Assets asset classes.
- Prepared the 2015 Investment Year in Review Report.
- Continued to execute plans for the long-term direction, sub-asset class structure and investment
  manager structure of SCERS' real estate program including: (1) Assessment of core separate
  account properties and open-end commingled funds; and (2) Review of opportunities in value add and
  opportunistic real estate.

#### LETTER OF TRANSMITTAL (CONTINUED)

- Made modifications to SCERS' overlay proxy within the Real Assets asset class to increase diversification across the liquid real assets investable universe.
- Evaluated reduced volatility equity strategies.
- Monitored and assessed the direction of SCERS' securities lending program.
- Researched and assessed the need for additional risk management systems and tools.
- Continued to assess the investment manager lineup across SCERS' fund.
- Assessed risk in global currency exposures.
- Conducted investment education programs on timberland and currency exposures.

#### Certificate of Achievement

The Government Finance Officers Association of the United States and Canada ("GFOA") awarded SCERS the Certificate of Achievement for Excellence in Financial Reporting to SCERS for its comprehensive annual financial report for the fiscal years ended June 30, 2015 and 2014. In order to be granted this national award, a governmental entity must publish an easily readable and efficiently organized CAFR that meets the highest standards of governmental financial reporting. This was the seventeenth consecutive year that SCERS has achieved this prestigious award.

A Certificate of Achievement is valid for a period of one year. Management believes that this current comprehensive annual financial report continues to meet the requirements for earning a Certificate of Achievement, and it will be submitted to the GFOA for consideration for the award.

SCERS also received the GFOA Award for Outstanding Achievement in Popular Annual Financial Reporting ("PAFR") for the fiscal year ended June 30, 2015. This was the seventh consecutive year SCERS has achieved this award.

#### Acknowledgements

This Report is intended to provide complete and reliable information with respect to the responsible stewardship of SCERS. The compilation of this Report is a product of the combined and dedicated effort of the System's Staff. This Report is also a reflection of the leadership of the SCERS Board in assuring the prudent fiduciary oversight of SCERS. I would like to take this opportunity to express my thanks to the SCERS Board, Staff, and advisors for their commitment to SCERS and for working so diligently to ensure the successful operation of the System.

Respectfully submitted,

Richard Stensrud Chief Executive Officer



Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

# Sacramento County Employees' Retirement System California

For its Comprehensive Annual Financial Report for the Fiscal Year Ended

June 30, 2015

Jeffry K. Ener

Executive Director/CEO

## BOARD OF RETIREMENT



President
Richard B. Fowler II
Appointed by Board of
Supervisors
Present term expires
June 30, 2019



Vice President
John B. Kelly
Appointed by Board of
Supervisors
Present term expires
December 31, 2018



Vice President
Keith DeVore
Appointed by Board of
Supervisors
Present term expires
June 30, 2018



Trustee
Steven L. Baird
Elected by Miscellaneous
Members
Present term expires
December 31, 2018



Trustee
Michael DeBord
Elected by Retired
Members
Present term expires
December 31, 2016



Trustee
James A. Diepenbrock
Appointed by Board of
Supervisors
Present term expires
June 30, 2018



Trustee
Diana Gin
Elected by Miscellaneous
Members
Present term expires
December 31, 2016



Ex-Officio
Ben Lamera
Sacramento County
Director of Finance
Member mandated by law



Trustee
Chris A. Pittman
Elected by Safety Members
Present term expires
December 31, 2018



Alternate Safety Trustee
John Conneally
Elected by Safety Members
Present term expires
December 31, 2018



Alternate Retiree Trustee
Martha Hoover
Elected by Retired
Members
Present term expires
December 31, 2016

# ORGANIZATION CHART

#### **BOARD OF RETIREMENT**



Richard Stensrud **Chief Executive Officer** 



Steve Davis **Chief Investment Officer** 



Robert L. Gaumer **General Counsel** 



John W. Gobel, Sr. **Chief Benefits Officer** 



Kathryn T. Regalia **Chief Operations Officer** 



Vacant **Deputy Chief Investment Officer** 

Investment policy and objectives

Investment compliance and performance reporting

Asset allocation rebalancing

Conduct manager searches

Manager due diligence

Proxy voting and corporate governance

Board education on investment issues





Suzanne Likarich **Retirement Services Manager** 



**Thuyet Dang Senior Accounting Manager** 

Coordinate and oversee the selection and work of outside

legal counsel

Legal representation and counsel to SCERS Board and staff

**Evaluation of securities** litigation

Analysis of state and federal legislation

Legislative proposals, contracts, resolutions and opinions

Legal education programs

Legal service planning and budgeting

Service, disability, deferred, and reciprocal retirements publications and

Pension payroll administration

Seminar presentations and member retirement counseling

Retirement communications

Death benefits and service credit purchases

Community property interest resolution

Accounting and financial reporting

Budgeting and cash flow analysis

Human resources

Facilities and safety

Information technology and

telecommunications

Administration and

records

# PARTICIPATING EMPLOYERS

<u>Employer</u>	<u>Date Entered System</u>
County of Sacramento	July 1, 1941
County of Sacramento, Elected Officials: Board of Supervisors Sheriff Assessor District Attorney	July 1, 1941
U.C. Davis Medical Center*	July 1, 1941
Sacramento Metropolitan Fire District**	March 1, 1957
Sunrise Recreation and Park District	August 1, 1961
Fair Oaks Cemetery District	March 1, 1962
Carmichael Recreation and Park District	January 1, 1967
Florin Fire District**	July 1, 1974
Mission Oaks Recreation and Park District	February 1, 1976
Sacramento Employment and Training Agency ("S.E.T.A.")	June 1, 1979
Orangevale Recreation and Park District	March 3, 1987
Elk Grove Cosumnes Cemetery District	April 28, 1987
Galt-Arno Cemetery District	July 1, 1987
Superior Court of California, County of Sacramento***	June 25, 2006

- \* The final participating member from UC Davis Medical Center retired in January 2013.
- \*\* Florin Fire District terminated its membership on June 30, 1996. Members are currently part of Sacramento Metropolitan Fire District.
- \*\*\* Prior to June 25, 2006, Superior Court member information was included in the totals for the County of Sacramento.

# PROFESSIONAL CONSULTANTS

#### Actuary

**Segal Consulting** 

#### Auditor

Macias Gini & O'Connell LLP

#### Custodian

**State Street Corporation** 

#### **Investment Consultant**

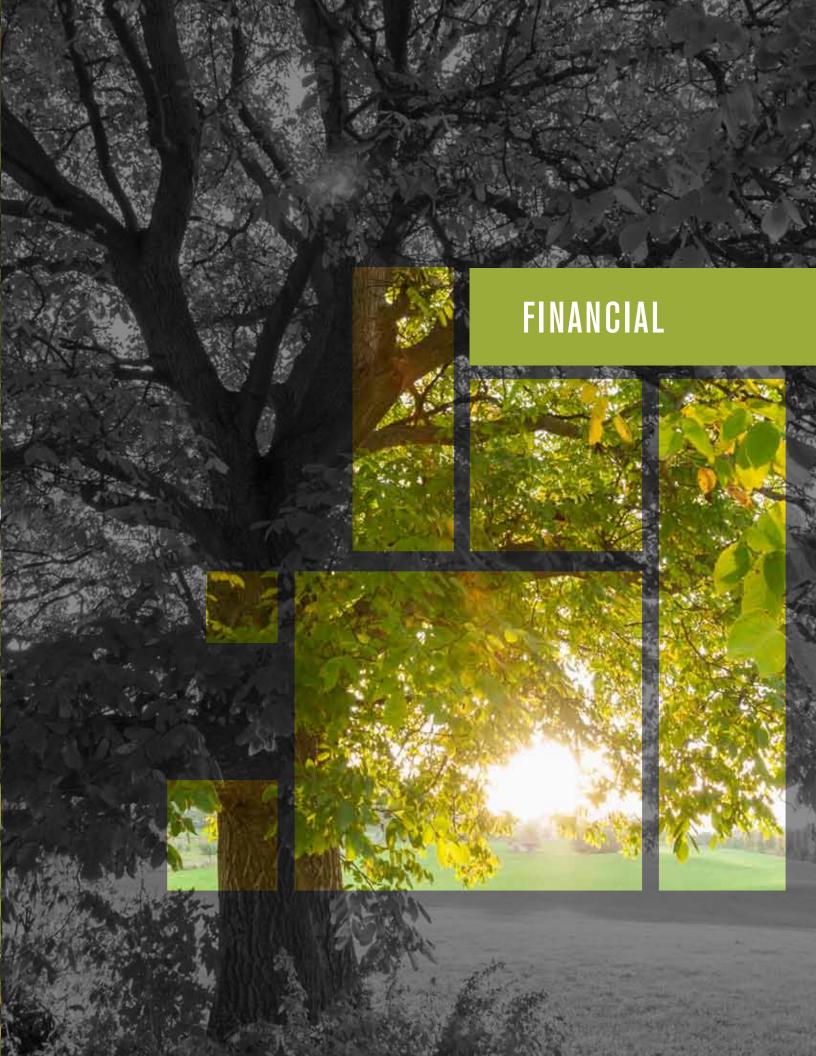
Cliffwater, LLC The Townsend Group Verus Advisory, Inc.

#### **Legal Counsel**

Nossaman, LLP **Public Pension Consultants** Sacramento County Office of the County Counsel

Note: Investment professionals are listed on pages 104 and 105, and a schedule of manager fees is located on pages 100 to 103 of this report in the Investment Section.





#### INDEPENDENT AUDITOR'S REPORT



**Century City** 

Los Angeles

Newport Beach

Oakland

Sacramento

San Diego

San Francisco

Walnut Creek

Woodland Hills

#### **INDEPENDENT AUDITOR'S REPORT**

To the Board of Retirement of the Sacramento County Employees' Retirement System Sacramento, California

#### **Report on the Financial Statements**

We have audited the accompanying financial statements of the Sacramento County Employees' Retirement System (the System) as of and for the fiscal years ended June 30, 2016 and 2015, and the related notes to the financial statements, which collectively comprise the System'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 audit. 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 misstatements 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.

#### Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the Sacramento County Employees' Retirement System as of June 30, 2016 and 2015, and the changes in fiduciary net position for the fiscal years then ended in accordance with accounting principles generally accepted in the United States of America.

#### **Emphasis of Matter**

As discussed in Note 2 to the basic financial statements, the System implemented the provisions of Governmental Accounting Standards Board Statement No. 72, *Fair Value Measurement and Application*, effective for the fiscal years ended June 30, 2016 and 2015.

As discussed in Note 4 to the basic financial statements, the total pension liability based on actuarial valuations as of June 30, 2016 and 2015, exceeded the System's fiduciary net position by \$1.8 billion and \$1.1 billion, respectively. Actuarial valuations are very sensitive to the underlying actuarial assumptions, including a discount rate of 7.50 percent, which represents the long-term expected rate of return.

Our opinion is not modified with respect to these matters.

#### Other Matters

#### Required Supplementary Information

Accounting principles generally accepted in the United States of America require that management's discussion and analysis, the Schedule of Changes in Net Pension Liability and Related Ratios, Schedule of Employer Contributions, and Schedule of Annual Money-Weighted Rate of Return, as listed in the table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audits 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 audits were conducted for the purpose of forming an opinion on the financial statements that collectively comprise the System's basic financial statements. The other supplemental information, introductory, investment, actuarial and statistical sections are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The other supplemental information in the financial section 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 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 supplemental information is fairly stated, in all material respects, in relation to the basic financial statements taken as a whole.

#### INDEPENDENT AUDITOR'S REPORT (CONTINUED)

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

#### Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated December 2, 2016 on our consideration of the System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts and 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 the System's internal control over financial reporting and compliance.

Macias Gini & O'Connell LAP
Sacramento, California
December 2, 2016

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## MANAGEMENT'S DISCUSSION AND ANALYSIS

This section presents management's discussion and analysis ("MD&A") of the financial activities of the Sacramento County Employees' Retirement System ("SCERS") for the years ended June 30, 2016 and 2015. Readers are encouraged to consider the narrative overview and information presented in this MD&A in conjunction with the Letter of Transmittal beginning on page 6 of this Report and the Basic Financial Statements, Notes to the Basic Financial Statements, Required Supplementary Information, and Other Supplemental Information that follows.

#### FINANCIAL HIGHLIGHTS

As of June 30, 2016, SCERS' fiduciary net position restricted for pension benefits ("net position") totaled \$7.681 billion. This represented a decrease of \$197.9 million or 2.5% from the \$7.879 billion in SCERS' net position as of June 30, 2015, which, in turn, represented an increase of \$68.8 million or 0.9% over the \$7.810 billion in net position as of June 30, 2014.

Additions to net position were \$214.1 million, \$449.3 million, and \$1,375.3 million for the years ended June 30, 2016, 2015 and 2014, respectively. Lower investment performance was the primary reason for the decrease in total additions for the fiscal years ended June 30, 2016 and 2015. Net depreciation in fair value of investments was \$12.6 million for the year ended June 30, 2016. Net appreciation in fair value of investments was \$217.3 million for the year ended June 30, 2015.

Deductions to net position were \$412.0 million and \$380.5 million for the years ended June 30, 2016 and 2015. The total deductions for the year ended June 30, 2016 increased by \$31.5 million or 8.3% over the year ended June 30, 2015, which in turn, saw an increase in total deductions of \$27.2 million or 7.7% over the year ended June 30, 2014. Increased monthly benefit payments due to an increase in the number of retirees and the annual cost-of-living adjustment were the primary reasons for the increase in total deductions for both years.

SCERS' funding objective is to meet long-term benefit obligations through contributions and investment income. In order to help achieve level and predictable contribution costs from one year to the next, SCERS bases the determination of contribution rates on an actuarial asset valuation method that gradually adjusts to the market value of assets ("asset smoothing"). Under this actuarial asset valuation methodology, any investment market returns for the year that are above or below the assumed investment return rate (7.50% for fiscal years 2015-2016 and 2014-2015) are recognized over seven years ("smoothing"). This smoothed value is referred to as the Actuarial Value of Assets. By using the Actuarial Value of Assets to determine the contribution rates, SCERS is able to avoid the year-to-year volatility in contribution rates that would come from using the market value of assets.

As of June 30, 2016, SCERS' total pension liability was \$9.436 billion, up from \$9.029 billion as of June 30, 2015. The employers' net pension liability increased from \$1.150 billion as of June 30, 2015 to \$1.755 billion as of June 30, 2016. This increase in employers' net pension liability is mainly due to low investment performance in fiscal year 2016 offset to some degree by lower-than-expected active employee salary growth, lower-than-expected cost-of-living adjustments, and higher-than-expected actual contributions. The fiduciary net position as a percentage of the total pension liability decreased from 87.3% to 81.4%.

#### **OVERVIEW OF THE FINANCIAL STATEMENTS**

This MD&A serves as an introduction to the basic financial statements and other information accompanying the basic financial statements, which are comprised of the following components:

- ♦ Statements of Fiduciary Net Position Pension Trust Fund
- ♦ Statements of Changes in Fiduciary Net Position Pension Trust Fund
- ♦ Statements of Fiduciary Net Position Agency Fund
- Notes to the Basic Financial Statements

The Statements of Fiduciary Net Position - Pension Trust Fund are snapshots of account balances at fiscal year end. These statements reflect assets available for future payments to retirees and their beneficiaries, and liabilities owed as of fiscal year end.

The Statements of Changes in Fiduciary Net Position - Pension Trust Fund reflect all the financial transactions that occurred during the year and show the impact of those activities as additions or deductions to the plan. The trend of additions versus deductions to the plan will indicate whether SCERS' financial position is improving or deteriorating over time.

The fiduciary fund statements report SCERS' net position restricted for pension benefits. Over time, increases or decreases in net position serve as one indicator of whether SCERS' financial health is improving or deteriorating. Other factors, such as market conditions or the System's fiduciary net position as a percentage of the employers' total pension liability should also be considered in measuring the System's overall health.

The Statements of Fiduciary Net Position - Agency Fund reflect assets held by SCERS in a custodial capacity or as an agent on behalf of others and do not measure the results of operations.

The Notes to the Basic Financial Statements are an integral part of the financial reports and provide additional information that is essential for a full understanding of the data provided in the financial statements.

In addition to the financial statements and accompanying notes, this Report presents certain Required Supplementary Information which includes the employers' net pension liability, actuarially determined contribution ("ADC"), actuarial assumptions used to calculate the net pension liability and ADC, historical trends and other required supplementary information related to SCERS' defined benefit pension plan as required by GASB Statement No. 67.

Schedules of administrative expenses, investment management expenses, payments to consultants, and statements of changes in assets and liabilities for the agency fund are presented as Other Supplemental Information following the Required Supplementary Information.

#### MANAGEMENT'S DISCUSSION AND ANALYSIS (CONTINUED)

#### FINANCIAL ANALYSIS

#### Assets and Employers' Net Pension Liability

SCERS' net position restricted for pension benefits as of June 30, 2016 totaled \$7.681 billion, a decrease of \$197.9 million or 2.5% from the \$7.879 billion in net position as of June 30, 2015, which represented an increase of \$68.8 million or 0.9% over the \$7.810 billion in net position as of June 30, 2014. The decrease in net position for the year ended June 30, 2016 was due to investment returns being flat and the benefits and expenses paid during the year exceeding the contributions received. The increase in net position for the year ended June 30, 2015 was due to both investment gains and receipt of employee and employer contributions.

For the fiscal year ended June 30, 2016, the total fund return, gross of fees, of (0.6%) was 2.1% below the return of the policy index benchmark of 1.5%. At the asset class level, fiscal year 2015-2016 investments in the international equity outperformed the policy benchmarks, while domestic equity, fixed income, absolute return, private equity, and real assets segments of the portfolio underperformed the policy benchmarks. Fiscal year 2014-2015 investments in the international equity, fixed income, and opportunistic segments of the portfolio outperformed the policy benchmarks, while investments in domestic equity, absolute return, private equity and real assets segments of the portfolio underperformed the policy benchmarks. All of the net position is available to meet SCERS' obligations to plan participants and beneficiaries.

The decrease in cash and short-term investments as of June 30, 2016 compared to the prior year was the result of funding new investments and fulfilling capital commitments. The increase in receivables and investment trade payables as of June 30, 2016 compared to the prior year was the result of an increase in trading activity at the end of June by the external investment managers. The increase in securities lending collateral and securities lending liability reflected a higher level of activity in the securities lending industry.

The increase in cash and short-term investments as of June 30, 2015 compared to the prior year was the result of the termination of an international equity manager and the available funds were placed into a passive interim solution within SCERS' overlay program. The decrease in receivables and investment trades payable as of June 30, 2015 compared to the prior year was the result of a decrease in trading activity at the end of June by the external investment managers.

#### **NET POSITION**

As of June 30 (Dollar Amounts Expressed in Millions)

			Increase/	
Assets	2016	2015	(Decrease)	% Change
Cash and short-term investments	\$416.4	\$659.0	(\$242.6)	(36.8%)
Receivables	168.0	92.4	75.6	81.8
Investments, at fair value, net	7,308.4	7,293.0	15.4	0.2
Securities lending collateral	422.5	320.6	101.9	31.8
Other assets	0.4	1.2	(0.8)	(66.7)
Total assets	8,315.7	8,366.2	(50.5)	(0.6)
Liabilities				
Other liabilities	39.5	38.0	1.5	3.9
Investments purchased payable	172.8	128.8	44.0	34.2
Securities lending liability	422.5	320.6	101.9	31.8
Total liabilities	634.8	487.4	147.4	30.2
Net position restricted for pension benefits	\$7,680.9	\$7,878.8	(\$197.9)	(2.5%)

#### **NET POSITION**

# As of June 30 (Dollar Amounts Expressed in Millions)

			Increase/	
Assets	2015	2014	(Decrease)	% Change
Cash and short-term investments	\$659.0	\$430.8	\$228.2	53.0%
Receivables	92.4	112.2	(19.8)	(17.6)
Investments, at fair value, net	7,293.0	7,503.9	(210.9)	(2.8)
Securities lending collateral	320.6	313.5	7.1	2.3
Other assets	1.2	2.7	(1.5)	(55.6)
Total assets	8,366.2	8,363.1	3.1	0.0
Liabilities				
Other liabilities	38.0	40.6	(2.6)	(6.4)
Investments purchased payable	128.8	199.0	(70.2)	(35.3)
Securities lending liability	320.6	313.5	7.1	2.3
Total liabilities	487.4	553.1	(65.7)	(11.9)
Net position restricted for pension benefits	\$7,878.8	\$7,810.0	\$68.8	0.9%

#### Management's Discussion and Analysis (Continued)

GASB Statement No. 67 replaced GASB Statement No. 25 and redefined pension liability and expense for financial reporting purposes but does not apply to contribution amounts for pension funding purposes. When measuring the total pension liability, GASB uses the same actuarial cost method and the same type of discount rate as SCERS uses for funding. Therefore, the employers' total pension liability measure for financial reporting shown in this report is determined on the same basis as SCERS' actuarial accrued liability measured for funding.

SCERS retains an independent actuarial firm, Segal Consulting, to perform annual actuarial valuations to determine the employers' total pension liability and ADC. An actuarial valuation is similar to an inventory process. On the valuation date, the assets available for the payment of retirement benefits are appraised. These assets are compared with the actuarial liability, which is the actuarial present value of all future benefits expected to be paid with respect to each member. The purpose of the actuarial valuation is to determine the total pension liability in accordance with the parameters set forth in GASB Statement No. 67 and what future contributions will be needed by the members and participating employers, in conjunction with investment earnings, to pay the expected future benefits.

As of June 30, 2016, the employers' total pension liability was \$9.436 billion, and the net pension liability (the total pension liability less the fiduciary net position) was \$1.755 billion. The plan fiduciary net position as a percentage of the total pension liability was 81.4%. In general terms, this ratio means that as of June 30, 2016, SCERS had approximately 81 cents available for each dollar of anticipated future liability. As of June 30, 2015, the employers' total pension liability was \$9.029 billion, and the net pension liability (the total pension liability less the fiduciary net position) was \$1.150 billion. The plan fiduciary net position as a percentage of the total pension liability was 87.3%.

The Required Supplementary Information presents additional information regarding the net pension liability and the Actuarial Section of this Report provides additional actuarial funding information.

#### Reserves

SCERS' reserves are established in accordance with the requirements of the 1937 Act, utilizing contributions and the accumulation of investment income, after satisfying administrative and investment expenses. Under GASB Statement No. 67, investments are stated at fair value instead of cost and include the recognition of unrealized gains and losses. However, for actuarial funding purposes, SCERS utilizes a seven-year smoothing methodology under which a portion of the market gains and losses is recognized and allocated to the reserves through interest crediting. The difference between the market value of assets (equivalent to the net position restricted for pension benefits) and the smoothed actuarial value of assets is tracked in the market stabilization reserve.

Lower-than-expected investment performance reduced SCERS' market stabilization reserve from \$40.0 million as of June 30, 2015 to (\$555.5) million as of June 30, 2016.

#### NET POSITION RESTRICTED FOR BENEFITS AT FAIR VALUE AS OF JUNE 30

(Dollar Amounts Expressed in Millions)

	2016	2015	2014
Employee Reserves	\$758.4	\$727.0	\$713.6
Employer Reserves	2,722 .1	2,621.6	2,564.8
Retiree Reserves	4,658.7	4,393.3	3,973.8
Retiree Death Benefit Reserves	16.1	15.8	15.2
Contingency Reserve	81.1	81.1	45.6
<b>Total Allocated Reserves and Designations</b>	8,236.4	7,838.8	7,313.0
Market Stabilization Reserve	(555.5)	40.0	497.0
Net position restricted for benefits, at fair value	\$7,680.9	\$7,878.8	\$7,810.0
Contingency Reserve  Total Allocated Reserves and Designations  Market Stabilization Reserve	81.1 8,236.4 (555.5)	7,838.8 40.0	45.6 7,313.0 497.0

#### Changes in Fiduciary Net Position - Pension Trust Fund

The following tables present the changes in fiduciary net position for the fiscal years ended June 30, 2016, 2015, and 2014, respectively.

#### **CHANGE IN FIDUCIARY NET POSITION**

For the Fiscal Years Ended June 30 (Dollar Amounts Expressed in Millions)

	Increase/			
	2016	2015	(Decrease)	% Change
Additions				
Employee contributions	\$77.5	\$68.1	\$9.4	13.8%
Employer contributions	209.0	223.0	(14.0)	(6.3)
Net gain/(loss) from investment activities	(12.6)	217.3	(229.9)	(105.8)
Net income from securities lending	1.9	1.0	0.9	90.0
Other income/(expense)	(2.3)	1.3	(3.6)	(276.9)
Investment fees and expenses	(59.4)	(61.4)	2.0	(3.3)
Total additions	214.1	449.3	(235.2)	(52.3)
Deductions				
Withdrawal of contributions	2.3	2.3	0.0	0.0
Administrative expenses	6.4	5.8	0.6	10.3
Benefits paid	403.3	372.4	30.9	8.3
Total deductions	412.0	380.5	31.5	8.3
Increase/(decrease) in net position	(197.9)	68.8	(266.7)	387.6
Net position restricted for pension benefits, beginning	7,878.8	7,810.0	68.8	0.9
Net position restricted for pension benefits, ending	\$7,680.9	\$7,878.8	(\$197.9)	(2.5%)

#### **CHANGE IN FIDUCIARY NET POSITION**

For the Fiscal Years Ended June 30 (Dollar Amounts Expressed in Millions)

	Increase/			
	2015	2014	(Decrease)	% Change
Additions				
Employee contributions	\$68.1	\$57.6	\$10.5	18.2%
Employer contributions	223.0	210.5	12.5	5.9
Net gain from investment activities	217.3	1,156.0	(938.7)	(81.2)
Net income from securities lending	1.0	1.3	(0.3)	(23.1)
Other income/(expense)	1.3	(0.9)	2.2	244.4
Investment fees and expenses	(61.4)	(49.2)	12.2	24.8
Total additions	449.3	1,375.3	(926.0)	(67.3)
Deductions				
Withdrawal of contributions	2.3	2.7	(0.4)	(14.8)
Administrative expenses	5.8	5.7	0.1	1.8
Benefits paid	372.4	344.9	27.5	8.0
Total deductions	380.5	353.3	27.2	7.7
Increase in net position	68.8	1,022.0	(953.2)	(93.3)
Net position restricted for pension benefits, beginning	7,810.0	6,788.0	1,022.0	15.1
Net position restricted for pension benefits, ending	\$7,878.8	\$7,810.0	\$68.8	0.9%

#### Additions to Net Position

Financing for the benefits SCERS provides to its members comes primarily through the collection of employer and member (employee) contributions and from income on investments. For the fiscal years ended June 30, 2016, 2015, and 2014, total additions were \$214.1 million, \$449.3 million, and \$1.375 billion, respectively.

For the fiscal years ended June 30, 2016, 2015, and 2014, combined employer and employee contributions were \$286.5 million, \$291.1 million, and \$268.1 million, respectively. Fiscal years 2015-2016 and 2014-2015 employee contributions increased as a result of the County and the County employees' bargaining units entering into agreements under which County employees pay more of the normal cost and increase in contribution rates for Safety members.

Net investment income/(loss) was (\$72.4) million, \$158.2 million, and \$1.107 billion for the fiscal years ended June 30, 2016, 2015, and 2014, respectively. The net investment loss for the fiscal year ended June 30, 2016 was related to the low investment performance. The net investment gains for the fiscal years ended June 30, 2015 and June 30, 2014 were directly related to strong investment performance. The Investment Section of this Report provides a detailed discussion of the investment markets and investment performance.

#### **Deductions from Net Position**

SCERS' net position was primarily used for the payment of benefits to members and their beneficiaries, for the payment of contribution refunds to terminated employees, and for the cost of administering the System. For the years ended June 30, 2016, 2015, and 2014, total deductions were \$412.0 million, \$380.5 million, and \$353.3 million, respectively.

Deductions increased \$31.5 million or 8.3% in the year ended June 30, 2016 and \$27.2 million or 7.7% in the year ended June 30, 2015. The primary cause of the increase in deductions in both years was due to the increase in monthly benefit payments resulting from an increase in the number of retired members and the annual cost-of-living adjustment paid to retirees and beneficiaries.

The Board of Retirement approves SCERS' annual budget. The 1937 Act limits SCERS' annual administrative expenses, excluding the costs of administration for computer software and hardware and computer technology consulting services ("IT costs"), to twenty-one hundredths of one percent (0.21%) of the System's actuarial accrued liability. Administrative expenses of \$5.5 million for the fiscal year ended June 30, 2016 and \$5.2 million for the fiscal year ended June 30, 2015, excluding IT costs, were 0.06% of the System's actuarial accrued liability. SCERS' administrative expenses have historically been below the limitation.

#### SCERS' FIDUCIARY RESPONSIBILITIES

SCERS' Board of Retirement and management staff are fiduciaries of the pension trust fund. Under the California Constitution and California state law, the net position must be used exclusively for the benefit of plan participants and their beneficiaries.

#### REQUESTS FOR INFORMATION

This Report is designed to provide the Board of Retirement, SCERS members, participating employers, taxpayers, and other stakeholders and interested parties with a general overview of SCERS' finances and to show accountability for the money SCERS receives.

Questions about this Report or requests for additional financial information may be addressed to:

Sacramento County Employees' Retirement System 980 9th Street, Suite 1900 Sacramento, CA 95814

Copies of this Report are available at the above address and on the System's web site at www.scers.org.

# STATEMENTS OF FIDUCIARY NET POSITION

#### PENSION TRUST FUND

#### AS OF JUNE 30, 2016 AND 2015

(Dollar Amounts Expressed in Thousands)

	2016	2015
Assets		
Cash invested with Sacramento County Treasurer	\$9,316	\$8,436
Other cash and cash equivalents	80,211	56,627
Short-term investments with fiscal agents	326,914	593,908
Cash and short-term investments	416,441	658,971
Receivables		
Employee and employer contributions	8,073	7,892
Accrued investment income	45,917	33,230
Securities sold	113,982	51,263
Total receivables	167,972	92,385
Investments, at fair value		
Common and preferred stock - domestic	2,035,218	1,875,151
Common and preferred stock - international	1,380,130	1,520,609
US government and agency securities	492,250	454,541
Domestic corporate bonds	937,418	682,385
International bonds	126,189	333,871
Real assets	973,077	1,210,739
Real assets - mortgages payable	(63,500)	(111,350)
Absolute return	724,682	773,662
Private equity	537,706	419,275
Opportunities	165,182	134,137
Securities lending collateral	422,520	320,650
Total investments	7,730,872	7,613,670
Other assets	378	1,199
Total assets	8,315,663	8,366,225
Liabilities		
Warrants payable	962	846
Accounts payable and other accrued liabilities	38,485	37,112
Investments purchased payable	172,831	128,803
Securities lending liability	422,520	320,650
Total liabilities	634,798	487,411
Net position restricted for pension benefits	\$7,680,865	\$7,878,814

The notes to the basic financial statements are an integral part of these statements.

# STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION

#### PENSION TRUST FUND

#### FOR THE FISCAL YEARS ENDED JUNE 30, 2016 AND 2015

(Dollar Amounts Expressed in Thousands)

	2016	2015
Additions		
Contributions		
Employee	\$77,494	\$68,143
Employer	209,020	222,959
Total contributions	286,514	291,102
Investment income		
From investment activities		
Net appreciation/(depreciation) in investment fair value:		
Securities	(179,823)	9,270
Real assets	1,126	(22,408)
Absolute return	(24,123)	26,925
Private equity	26,693	38,684
Opportunities	4,652	10,079
Interest	38,302	34,444
Dividends	77,392	73,437
Real assets	23,708	25,305
Private equity	8,989	18,645
Opportunities	10,525	2,960
Net gain/(loss) from investment activities	(12,559)	217,341
From securities lending activities	_	
Securities lending income	1,805	907
Securities lending expense		
Borrower rebate income	539	463
Securities lending management fees	(489)	(334)
Net income from securities lending	1,855	1,036
Other income/(expense)	(2,317)	1,283
Investment fees and expenses	(59,378)	(61,438)
Net investment income/(loss)	(72,399)	158,222
Total additions	214,115	449,324
Deductions		
Withdrawal of contributions	2,346	2,288
Administrative expenses	6,362	5,854
Benefits paid	403,356	372,369
Total deductions	412,064	380,511
Net increase/(decrease)	(197,949)	68,813
Net position restricted for pension benefits, beginning	7,878,814	7,810,001
Net position restricted for pension benefits, ending	\$7,680,865	\$7,878,814

The notes to the basic financial statements are an integral part of these statements.



# STATEMENTS OF FIDUCIARY NET POSITION

# AGENCY FUND AS OF JUNE 30, 2016 AND 2015 (Dollar Amounts Expressed in Thousands)

	2016	2015
Assets		
Accounts receivable	\$47	\$31
Total assets	\$47	\$31
Liabilities		
Accounts payable	\$47	\$31
Total liabilities	\$47	\$31

The notes to the basic financial statements are an integral part of these statements.

# NOTES TO THE BASIC FINANCIAL STATEMENTS

#### **NOTE 1 - PLAN DESCRIPTION**

The Sacramento County Employees' Retirement System ("SCERS" or the "System") is a cost-sharing multiple-employer public employee retirement system which operates under the County Employees Retirement Law of 1937 (Section 31450 et seq. of the California Government Code) and the California Public Employees' Pension Reform Act of 2013 ("CalPEPRA"). The System was created by resolution of the Sacramento County (the "County") Board of Supervisors on July 1, 1941, to provide retirement, disability, and death benefits for qualified employees of Sacramento County and participating Special Districts ("Special Districts" or "Member Districts"). SCERS is governed by a nine member Board of Retirement. Four are appointed by the County Board of Supervisors; four are elected by the members of the System (two by the Miscellaneous members, one by the Safety members and one by the Retiree members); and the County Director of Finance serves as an Ex-Officio member. An alternate Safety member and an alternate Retiree member are also elected by those respective member groups. The System is legally and fiscally independent of the County.

At June 30, 2016 and 2015, participating local government employers consisted of the County of Sacramento; Superior Court of California, County of Sacramento ("Superior Court"); and eleven Special Districts.

The System's membership consists of the following categories:

- Safety Tier 1 Includes employees whose principal duties consist of law enforcement or fire suppression work or who occupy positions designated by law as safety positions and who have a membership start-date prior to June 25, 1995.
- Safety Tier 2 Includes employees whose principal duties consist of law enforcement or fire suppression work or who occupy positions designated by law as safety positions and who have a membership start-date on or after June 25, 1995 but prior to January 1, 2012.
- Safety Tier 3 Includes employees whose principal duties consist of law enforcement or fire suppression work or who occupy positions designated by law as safety positions and who have a membership start-date on or after January 1, 2012 but prior to January 1, 2013.
- Safety Tier 4 Includes employees whose principal duties consist of law enforcement or fire suppression work or who occupy positions designated by law as safety positions and who have a membership start-date on or after January 1, 2013.
- Miscellaneous Tier 1 Includes all members other than Safety who have a membership start-date prior to September 27, 1981.
- Miscellaneous Tier 2 Includes all members other than Safety who have a membership startdate on or after September 27, 1981 and prior to June 27, 1993 and who elected not to become members of Miscellaneous Tier 3.
- Miscellaneous Tier 3 Includes all members other than Safety who have a membership startdate on or after June 27, 1993, and those Miscellaneous Tier 2 members who elected to become members of this class. The Miscellaneous Tier 3 is closed to employees of Sacramento County who have membership start-date on or after January 1, 2012.
- Miscellaneous Tier 4 Includes members other than Safety who are employees of Sacramento County and have a membership start-date on or after January 1, 2012 but prior to January 1, 2013.
- Miscellaneous Tier 5 Includes all members other than Safety who have a membership start-date on or after January 1, 2013.

(Dollar Amounts Expressed in Thousands)

At June 30, 2016 and 2015, the System's membership consisted of:

Current Members:	2016	2015	
Vested			
Miscellaneous Tier 1	83	104	
Miscellaneous Tier 2	62	68	
Miscellaneous Tier 3	7,548	7,922	
Miscellaneous Tier 4	10	8	
Miscellaneous Tier 5	10	5	
Total Miscellaneous	7,713	8,107	
Safety Tier 1	218	254	
Safety Tier 2	1,325	1,345	
Safety Tier 3	30	18	
Safety Tier 4	10	10	
Total Safety	1,583	1,627	
Total Vested	9,296	9,734	
Non-Vested			
Miscellaneous Tier 3	198	316	
Miscellaneous Tier 4	318	298	
Miscellaneous Tier 5	2,134	1,372	
Total Miscellaneous	2,650	1,986	
Safety Tier 2	12	25	
Safety Tier 3	72	79	
Safety Tier 4	363	248	
Total Safety	447	352	
Total Non-Vested	3,097	2,338	
Total Current Members	12,393	12,072	

Retirees and beneficiaries currently receiving benefits:	2016	2015
Miscellaneous - Service	7,148	6,833
Miscellaneous - Beneficiary	1,176	1,138
Miscellaneous - Nonservice-Connected Disability	287	291
Miscellaneous - Service-Connected Disability	177	186
Total Miscellaneous	8,788	8,448
Safety - Service	1,562	1,500
Safety - Beneficiary	357	341
Safety - Nonservice-Connected Disability	17	19
Safety - Service-Connected Disability	236	233
Total Safety	2,172	2,093
Total Retirees and Beneficiaries	10,960	10,541
Terminated employees entitled to benefits but not yet receiving them		63
Miscellaneous Tier 1	48 170	63
Miscellaneous Tier 2	2,343	185
Miscellaneous Tier 3 Miscellaneous Tier 4	63	2,357
Miscellaneous Tier 5	221	51
Total Miscellaneous	2,845	2,785
Safety Tier 1	77	93
Safety Tier 2	356	368
Safety Tier 3	6	5
Safety Tier 4	17	10
Total Safety	456	476
Total Terminated Members	3,301	3,261
Grand Total	26,654	25,874

<sup>\*</sup>Includes terminated members due a refund of member contributions.

(Dollar Amounts Expressed in Thousands)

#### **Pension Benefits**

The System's benefits are established by the provisions of the County Employees Retirement Law of 1937 and CalPEPRA and provide for retirement, death, and disability benefits. All permanent full-time and part-time employees of the County, Superior Court and Member Districts are eligible to participate in the System. Upon reaching five years of service, participants have earned the right to receive a retirement benefit, subject to certain restrictions if retirement is prior to attaining age 50 or if less than 10 years of service has been achieved for Miscellaneous Tier 1, 2, 3 and 4 and Safety Tier 1, 2, and 3, or prior to attaining age 50 or if less than 5 years of service has been achieved for Miscellaneous Tier 5, or prior to attaining age 50 or if less than 5 years of service has been achieved for Safety Tier 4.

Effective June 29, 2003, the County Board of Supervisors adopted new benefit formulas for all SCERS members, including the employees of Member Districts, for service credit prospectively from June 29, 2003, and for County employees, retroactively to service credit which precedes that date. In accordance with applicable retirement law, each SCERS Member District's governing body determined whether or not to apply these formulas retroactively for service credit earned prior to June 29, 2003 by their employees.

Retirement benefits under Safety Tiers 1 and 2 and Miscellaneous Tiers 1, 2 and 3 are as follows:

- Members covered under Safety Tier 1 who retire at age 50, or thereafter, are entitled to a retirement benefit, payable monthly for life, equal to 3 percent of their final-average salary for each year of credited service. This benefit includes a cost-of-living adjustment of up to 4 percent annually. Final-average salary is the member's average salary for the highest twelve consecutive months of credited service.
- Members covered under Safety Tier 2 who retire at age 50, or thereafter, are entitled to a retirement benefit, payable monthly for life, equal to 3 percent of their final-average salary for each year of credited service. This benefit includes a cost-of-living adjustment of up to 2 percent annually. Final-average salary is the member's average salary for the highest thirty-six consecutive months of credited service.
- Members covered under Miscellaneous Tier 1 who retire at age 50 are entitled to a retirement benefit, payable monthly for life, which is equal to 1.48 percent of their final-average salary for each year of credited service. This benefit includes a cost-of-living adjustment of up to 4 percent annually. Finalaverage salary is the member's average salary for the highest twelve consecutive months of credited service.
- Members covered under Miscellaneous Tier 2 who retire at age 50 are entitled to a retirement benefit, payable monthly for life, equal to 1.48 percent of their final-average salary for each year of credited service. There is no cost-of-living adjustment. Final-average salary is the member's average salary for the highest thirty-six consecutive months of credited service.
- Members covered under Miscellaneous Tier 3 who retire at age 50 are entitled to a retirement benefit, payable monthly for life, equal to 1.48 percent of their final-average salary for each year of credited service. This benefit includes a cost-of-living adjustment of up to 2 percent annually. Final-average salary is the member's average salary for the highest thirty-six consecutive months of credited service.

The retirement benefits of Miscellaneous Tier 1, 2, and 3 members who retire after age 50 are increased by an age factor for each quarter year of age up to a maximum of 2.61 percent of final-average salary for each year of credited service at age 62.

Members whose employers determined not to retroactively apply the formulas to service credit earned prior to June 29, 2003 will continue to have their retirement benefits for that service calculated pursuant to the formulas in effect at the time the service was earned (i.e., Safety and Miscellaneous members who retire at age 50 earn 2 percent and 1.1 percent, respectively, of their final-average salary for each year of credited service).

(Dollar Amounts Expressed in Thousands)

Effective January 1, 2012, the County Board of Supervisors adopted new tiers for County employees hired on or after January 1, 2012, but before January 1, 2013. Retirement benefits under these new tiers are as follows:

- Members covered under Safety Tier 3 who retire at age 50 are entitled to a retirement benefit, payable
  monthly for life, equal to 2.29 percent of their final-average salary for each year of credited service.
  This benefit includes a cost-of-living adjustment of up to 2 percent annually. Final-average salary is the
  member's average salary for the highest thirty-six consecutive months of credited service.
- Members covered under Miscellaneous Tier 4 who retire at age 50 are entitled to a retirement benefit, payable monthly for life, equal to 1.18 percent of their final-average salary for each year of credited service. This benefit includes a cost-of-living adjustment of up to 2 percent annually. Final-average salary is the member's average salary for the highest thirty-six consecutive months of credited service.

The retirement benefits of Safety Tier 3 members who retire after age 50 are increased by an age factor for each quarter year of age up to a maximum of 3 percent of final-average salary for each year of credited service at age 55. The retirement benefits of Miscellaneous Tier 4 members who retire after age 50 are increased by an age factor for each quarter year of age up to a maximum of 2.43 percent of final-average salary for each year of credited service at age 65.

Effective January 1, 2013, with the implementation of CalPEPRA, the County Board of Supervisors adopted new tiers for employees of the County, Superior Court and Member Districts who are eligible to participate in the System and who were hired on or after January 1, 2013. Retirement benefits under these new tiers are as follows:

- Members covered under Safety Tier 4 who retire at age 50 are entitled to a retirement benefit, payable
  monthly for life, equal to 2 percent of their final-average salary for each year of credited service. This
  benefit includes a cost-of-living adjustment of up to 2 percent annually. Final-average salary is the
  member's average salary for the highest thirty-six consecutive months of credited service.
- Members covered under Miscellaneous Tier 5 who retire at age 52 are entitled to a retirement benefit, payable monthly for life, equal to 1 percent of their final-average salary for each year of credited service.
   This benefit includes a cost-of-living adjustment of up to 2 percent annually. Final-average salary is the member's average salary for the highest thirty-six consecutive months of credited service.

The retirement benefits of Safety Tier 4 members who retire after age 50 are increased by an age factor for each quarter year of age up to a maximum of 2.7 percent of final-average salary for each year of credited service at age 57. The retirement benefits of Miscellaneous Tier 5 members who retire after age 52 are increased by an age factor for each quarter year of age up to a maximum of 2.5 percent of final-average salary for each year of credited service at age 67.

#### **Member Termination**

Upon separation from employment with a participating employer, members' accumulated contributions are refundable with interest accrued through the prior six-month period ended June 30 or December 31. Interest on member accounts is credited semiannually on June 30 and December 31. Withdrawal of such accumulated contributions results in forfeiture of the related benefits.

(Dollar Amounts Expressed in Thousands)

#### **Financing**

Benefits payable by the System are financed through member contributions, employer contributions, and earnings from investments. Member contributions are required by law. Contribution rates, which are actuarially determined, are based on age at entry into the System (a single rate is used for members entering the System after January 1, 1975). County, Superior Court and Member Districts' contributions are actuarially determined to provide for the balance of contributions needed. All contribution rates are reviewed and revised annually. The authority for both benefit provisions and contribution obligations is derived from the County Employees Retirement Law of 1937 and CalPEPRA.

#### NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES AND PLAN ASSET MATTERS

SCERS reports fiduciary funds at June 30, 2016 and 2015 which include pension trust and agency funds. The pension trust fund is used to report resources that are required to be held in trust for the members and the beneficiaries of the defined benefit pension plan, and the agency fund accounts for assets held by SCERS in a custodial capacity or as an agent on behalf of the participating employers to fund the Retiree Medical and Dental Insurance Program. See Note 8 for a detailed description of the program. The pension trust fund is accounted for on a flow of economic resources measurement focus and the accrual basis of accounting. The agency fund is custodial in nature and does not measure the results of operations. Assets and liabilities are recorded using the accrual basis of accounting.

#### **Basis of Accounting**

The accompanying financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America and reporting guidelines set forth by the Governmental Accounting Standards Board ("GASB"). The major pronouncements that prescribe the System's defined benefit pension plan are GASB 31, 40, 51, 53, 67, and 72.

Effective July 1, 2015, SCERS adopted the provisions of GASB Statement No. 72, *Fair Value Measurement and Application*, which addresses accounting and financial reporting issues related to fair value measurements for periods beginning after June 15, 2015. This Statement:

- Defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date;
- Provides guidance for determining a fair value measurement for financial reporting purposes;
- Provides guidance regarding disclosures about fair value measurements, the level of fair value hierarchy, and valuation techniques and organizing these disclosures by type of asset or liability reported at fair value.

In March 2016, GASB issued Statement No. 82, *Pension Issues - An Amendment of GASB Statements No. 67, No. 68, and No. 73.* This Statement addresses issues regarding the presentation of payroll-related measures in required supplementary information, the selection of assumptions and the treatment of deviations from the guidance in Actuarial Standards of Practice for financial reporting purposes, and the classification of payments made by employers to satisfy employee contribution requirements. The requirements of this Statement are effective for reporting periods beginning after June 15, 2016. The System has early-implemented the applicable requirements of this Statement effective July 1, 2015.

#### Valuation of Investments

The majority of the investments held at June 30, 2016 and 2015 are in the custody of, or controlled by, State Street Bank, the System's custodian. The System's investment portfolio consists of domestic and international equities, domestic and international fixed income, real assets, absolute return, private equity,

and opportunities. The diversity of the System's investment portfolio requires a wide range of techniques to determine fair value. Investments are valued at their fair value in accordance with GASB Statement No. 72, Fair Value Measurement and Application, which results in the recognition of fair value gains and losses. The overall valuation processes and information sources by major asset classifications are presented in Note 3.

#### Contributions and Benefits

Employee and employer contributions are recognized when due pursuant to statutory requirements. Benefits and refunds are recognized when the benefits are currently due and payable in accordance with the terms of the plan.

#### **Income and Expenses**

Interest income is recognized as it accrues. Dividend income is recognized when the dividends are declared. Realized gains and losses and unrealized gains and losses on investments are combined and reported together as the net appreciation (depreciation) in the fair value of investments. Expenses are recorded when the corresponding liabilities are incurred, regardless of when payment is made. Investment purchases and sales are recorded on the trade date, not the settlement date.

#### Securities Lending

Securities lending transactions are short-term collateralized loans of the System's securities for the purpose of generating additional investment income. For each lending transaction, the System receives either cash collateral or non-cash collateral. The underlying securities out on loan are reported on the System's statements of fiduciary net position as if the lending transactions had not occurred. Cash collateral received for the loaned securities is reported as securities lending liability on the statements of fiduciary net position. Cash collateral is reinvested in the lending agent's cash collateral investment pool and is valued at fair value and is reported as securities lending collateral on the statement of fiduciary net position. Non-cash collateral held is not reported on the statements of fiduciary net position nor is there a corresponding liability reported on these financial statements as the System does not have the ability to pledge or sell them without a borrower default. Note 3 - Cash and Investments discloses the amount of securities lending non-cash collateral.

#### Other Assets

Other assets consist of other accounts receivable, prepaid expenses, net capital assets, and security deposits.

#### **Administrative Expenses**

Administrative costs are financed through employer and employee contributions and earnings from investments.

#### **Estimates**

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results may differ from those estimates.

(Dollar Amounts Expressed in Thousands)

#### Reclassification

Certain reclassifications have been made to June 30, 2015 balances to conform to the presentation as of and for the fiscal year ended June 30, 2016.

#### **NOTE 3 - CASH AND INVESTMENTS**

#### **SECTION 1: INVESTMENT POLICIES**

Article XVI, Section 17 of the Constitution of the State of California provides that "...notwithstanding any other provisions of law or this Constitution, the Retirement Board of a public pension or retirement system shall have plenary authority and fiduciary responsibility for investment of monies and administration of the system..." Article XVI, Section 17(a) further provides that "...the Retirement Board of a public pension or retirement system shall have sole and exclusive fiduciary responsibility over the assets..." The investment authority for the System rests primarily through the "prudent person rule," as set forth in Section 31595 of the County Employees Retirement Law of 1937, which establishes a standard for all fiduciaries, including anyone with investment authority on behalf of the System.

#### **Asset Allocation**

SCERS maintains an overall investment policy designed to achieve a diversified investment portfolio. An integral part of the investment policy is the strategic asset allocation, which is designed to provide an optimal mix of asset classes with return expectations that correspond to expected liabilities. The strategic asset allocation also emphasizes maximum diversification of the portfolio to protect the System from the possibility that a particular asset class may experience poor investment performance in a given period. The System's adopted asset allocation policy as of June 30, 2016 and 2015 is as follows:

Asset Class	Target Allocation
Domestic Equities	22.5%
International Equities	22.5
Fixed Income	20.0
Real Assets	15.0
Absolute Return	10.0
Private Equity	10.0
Opportunities	0.0
Total	100.0%

#### **SECTION 2: INVESTMENT SUMMARY**

#### Cash Invested with Sacramento County Treasurer

The System invests cash held for benefit payments and general operations in the County Treasurer's pool. The County Treasury Oversight Committee is responsible for regulatory oversight of the pool. The System's share of the County Treasurer's pool is separately accounted for, and interest earned, net of related expenses, is apportioned quarterly based on the proportion of the System's average daily cash balance to the total of the pooled cash and investments.

Cash deposited in the Sacramento County Treasurer's pool is stated at fair value. The value of the System's pool shares is determined on an amortized cost basis, which approximates fair value. The fair value of the System's cash invested with the County Treasurer totaled \$9,316 and \$8,436 at June 30, 2016 and 2015, respectively. The pool was not rated, and the weighted-average maturity of the pool was 254 days and 263 days at June 30, 2016 and 2015, respectively.

Interest earned but not received from the County Treasurer at year end is reported as a component of accrued investment income on the statements of fiduciary net position. Cash and investments included within the County Treasurer's pool are described in the County's Comprehensive Annual Financial Report.

#### Other Cash and Cash Equivalents

At June 30, 2016 and 2015, other cash and cash equivalents constituted balances in bank demand deposit accounts of \$80,211 and \$56,627, respectively.

#### **Short-Term Investments with Fiscal Agents**

Short-term investments, which include highly-liquid investments expected to be utilized by the System within 30-90 days, are reported at fair value. These investments may include securities that have a maturity in excess of 90 days but are readily marketable. At June 30, 2016 and 2015, the fair value of the System's short-term investments with fiscal agents was \$326,914 and \$593,908, respectively. These totals consisted of investments in the State Street Short-Term Investment Fund ("STIF"). The STIF is designed to provide qualified benefit plans with an investment vehicle that may be accessed on a daily basis. The STIF is limited to investing in securities that are rated A-1 by Moody's Investors Services and P-1 by Standard & Poor's Corporation at the time of issuance. The STIF is not rated by credit rating agencies. Most investments range in maturity from overnight to 90 days with up to 20% of the STIF's value eligible for investment between 90 days and 13 months. For the fiscal years ended June 30, 2016 and 2015, the weighted-average maturities were 24 days and 32 days. Investments in the STIF from all participating custodial clients of State Street were \$63.9 billion and \$60.9 billion on June 30, 2016 and 2015, respectively.

#### Fair Value of Investments

The System measures and records its investments using fair value measurement guidelines established by U.S. generally accepted accounting principles ("GAAP"). These guidelines recognize a three-tiered fair value hierarchy, as follows:

- Level 1: Quoted prices for identical investments in active markets:
- · Level 2: Observable inputs other than quoted market prices; and,
- Level 3: Unobservable inputs.

(Dollar Amounts Expressed in Thousands)

The System had the following recurring fair value measurements at June 30, 2016 and 2015.

June 30, 2016		Fair Val	ue Measurements Us	
		Quoted Prices in Active Markets for Identical Assets	Significant Other Observable Inputs	Significant Unobservable Inputs
	Total	(Level 1)	(Level 2)	(Level 3)
Equity Securities				
Consumer Discretionary	\$370,294	\$370,294	\$-	\$-
Consumer Staples	230,298	230,298	-	-
Energy	191,111	191,111	-	-
Financials	727,440	727,440	-	-
Health Care	307,763	307,763	-	-
Industrials	304,061	304,061	-	-
Information Technology	396,359	396,359	-	-
Materials	122,585	122,585	-	-
Private Placement	2,252	2,252	-	-
Telecommunication Services	80,713	80,713	-	-
Utilities	90,647	90,647	-	-
Others	497	497		
Total Equity Securities	2,824,020	2,824,020		
Fixed Income Securities				
Securitized Obligations				
Asset-Backed Securities	150,235	-	150,235	-
Collateralized Mortgage-Backed Securities	72,789	403	72,386	-
Credit Obligations				
Corporate Bonds	344,338	-	344,338	-
Municipals	7,860	-	7,860	-
Yankee	28,642	-	28,642	-
U.S. Government & Agency Obligations	,		·	
Agency Securities	9,883	-	9,883	-
U.S. Treasury	267,998	-	267,998	-
International Government	8,450	-	8,450	-
Collateralized Mortgage Obligations	55,615	-	55,615	-
Mortgage Pass-Through				
FHLMC	68,262	-	68,262	-
FNMA	104,311	-	104,311	-
GNMA	41,796	-	41,796	-
Total Fixed Income Securities	1,160,179	403	1,159,776	
Real Assets - Direct Holdings	353,180	_	-	353,180
Mortgages payable	(63,500)	-	-	(63,500)
Total Investments by Fair Value Level	4,273,879	\$2,824,423	\$1,159,776	\$289,680

#### Investments Measured at Net Asset Value (NAV)

investments intensated at interisset value (inter)				
	Fair Value	Unfunded Commitments	Redemption Frequency (If Currently Eligible)	Redemption Notice Period
Public Equity Commingled Funds	\$591,279	\$-	Daily, monthly	1 - 60 days
Absolute Return	724,682	3,205	Monthly, quarterly	30 - 90 days
Fixed Income Securities Commingled Funds	395,678	-	Daily, monthly	1 - 60 days
Real Assets	619,897	516,593		
Private Equity	537,706	545,155		
Opportunities	165,182	157,199		
Total Investments Measured at NAV	3,034,424			
Total Investments*	\$7,308,303			
June 30, 2016		Fair Valu	ue Measurements Us	ing
		Quoted Prices in Active Markets for Identical Assets	Significant Other Observable Inputs	Significant Unobservable Inputs
Investment Derivative Instruments	Total	(Level 1)	(Level 2)	(Level 3)
Assets				
Forwards	\$10,428	\$2,543	\$7,885	\$-
Rights	49	49	-	-
Swaps	680,942	-	680,942	-
Liabilities				
Forwards	(13,268)	(2,944)	(10,324)	-
Swaps	(700,991)		(700,991)	
Total Investment Derivative Instruments	(\$22,840)	(\$352)	(\$22,488)	\$-

<sup>\*</sup> Total investments exclude Rights, which are presented in the Investment Derivative Instruments section below, and securities lending collateral, which are comprised of short-term investments and are excluded from disclosures.

(Dollar Amounts Expressed in Thousands)

June 30, 2015		Fair Value Measurements Using				
		Quoted Prices in Active Markets for Identical Assets	Significant Other Observable Inputs	Significant Unobservable Inputs		
	Total	(Level 1)	(Level 2)	(Level 3)		
Equity Securities						
Consumer Discretionary	\$370,229	\$370,229	\$-	\$-		
Consumer Staples	223,108	223,108	-	-		
Energy	167,148	167,148	-	-		
Financials	762,392	762,392	-	-		
Health Care	332,844	332,844	-	-		
Industrials	270,074	270,074	-	-		
Information Technology	355,547	355,547	-	-		
Materials	140,984	140,984	-	-		
Private Placement	22,025	22,025	-	-		
Real Estate	3,021	3,021	-	-		
Telecommunication Services	75,831	75,831	-	-		
Utilities	55,878	55,878				
Total Equity Securities	2,779,081	2,779,081				
Fixed Income Securities						
Securitized Obligations						
Asset-Backed Securities	153,323	_	153,323	_		
Collateralized Mortgage-Backed Securities	41,496	_	41,496	_		
Credit Obligations	,		,			
Corporate Bonds	307,602	_	307,602	_		
Municipals	872	_	872	_		
Yankee	26,421	_	26,421	_		
U.S. Government & Agency Obligations	-,		-,			
Agency Securities	15,908	_	15,908	_		
U.S. Treasury	230,471	_	230,471	_		
International Government	13,922	_	13,922	_		
Collateralized Mortgage Obligations	87,261	_	87,261	_		
Mortgage Pass-Through	0.,201		07,201			
FHLMC	45,457	_	45,457	_		
FNMA	133,485	_	133,485	_		
GNMA	29,220	_	29,220	_		
Total Fixed Income Securities	1,085,438		1,085,438			
Total Fixed income Securities			1,005,450			
Real Assets - Direct Holdings	451,800	-	-	451,800		
Mortgages Payable	(111,350)			(111,350)		
Total Investments by Fair Value Level	4,204,969	\$2,779,081	\$1,085,438	\$340,450		

June 30, 2015 Investments Measured at Net Asset Value (NAV)

	Fair Value	Unfunded Commitments	Redemption Frequency (If Currently Eligible)	Redemption Notice Period
Public Equity Commingled Funds	\$616,178	\$-	Daily, monthly	1 - 60 days
Absolute Return	773,662	6,199	Monthly, quarterly	30 - 90 days
Fixed Income Securities Commingled Funds	385,359	-	Daily, monthly	1 - 60 days
Real Assets	758,939	463,670		
Private Equity	419,275	508,023		
Opportunities	134,137	144,416		
Total Investments Measured at NAV	3,087,550			
Total Investments*	\$7,292,519			

Investment Derivative Instruments         Total         Quoted Prices in Identical Assets (Level 1)         Significant Other Observable Inputs (Level 3)         Significant Other Observable Inputs (Level 3)           Assets         Forwards         \$22,931         \$1,875         \$21,056         \$-           Options         426         -         426         -           Rights         91         91         -         -           Swaps         2,967         -         2,967         -           Warrants         410         -         410         -           Liabilities         Forwards         (1,740)         (1,740)         -         -           Options         (263)         -         (263)         -           Swaps         (16,933)         -         (16,933)         -           Total Investment Derivative Instruments         \$7,889         \$226         \$7,663         \$-	June 3	30, 2015		Fair Value Measurements Using			
Investment Derivative Instruments         Total         Identical Assets (Level 1)         Observable Inputs (Level 3)         Inputs (Level 3)           Assets         Forwards         \$22,931         \$1,875         \$21,056         \$-           Options         426         -         426         -           Rights         91         91         -         -           Swaps         2,967         -         2,967         -           Warrants         410         -         410         -           Forwards         (1,740)         (1,740)         -         -           Options         (263)         -         (263)         -           Swaps         (16,933)         -         (16,933)         -				Quoted Prices in		Significant	
Investment Derivative Instruments         Total         (Level 1)         (Level 2)         (Level 3)           Assets         Forwards         \$22,931         \$1,875         \$21,056         \$-           Options         426         -         426         -           Rights         91         91         -         -           Swaps         2,967         -         2,967         -           Warrants         410         -         410         -           Liabilities         -         (1,740)         (1,740)         -         -         -           Options         (263)         -         (263)         -<				Active Markets for	Significant Other	Unobservable	
Assets Forwards \$22,931 \$1,875 \$21,056 \$- Options 426 - 426 - Rights 91 91 - Swaps 2,967 - 2,967 - Warrants 410 - Liabilities Forwards (1,740) (1,740) - Options (263) - (263) - Swaps (16,933) - (16,933) -				Identical Assets	Observable Inputs	Inputs	
Forwards         \$22,931         \$1,875         \$21,056         \$-           Options         426         -         426         -           Rights         91         91         -         -           Swaps         2,967         -         2,967         -           Warrants         410         -         410         -           Liabilities         -         (1,740)         (1,740)         -         -           Options         (263)         -         (263)         -           Swaps         (16,933)         -         (16,933)         -	Invest	tment Derivative Instruments	Total	(Level 1)	(Level 2)	(Level 3)	
Options       426       -       426       -         Rights       91       91       -         Swaps       2,967       -       2,967       -         Warrants       410       -       410       -         Liabilities       Forwards       (1,740)       (1,740)       -       -       -         Options       (263)       -       (263)       -         Swaps       (16,933)       -       (16,933)       -	Asset	s					
Rights       91       91       -         Swaps       2,967       -       2,967       -         Warrants       410       -       410       -         Liabilities       Torwards       (1,740)       (1,740)       -       -       -         Options       (263)       -       (263)       -		Forwards	\$22,931	\$1,875	\$21,056	\$-	
Swaps       2,967       -       2,967       -         Warrants       410       -       410       -         Liabilities       Forwards       (1,740)       (1,740)       -       -       -         Options       (263)       -       (263)       - <th></th> <th>Options</th> <th>426</th> <th>-</th> <th>426</th> <th>-</th>		Options	426	-	426	-	
Warrants       410       -       410       -         Liabilities       (1,740)       (1,740)       -       -         Forwards       (1,740)       (1,740)       -       -       -         Options       (263)       -       (263)       -         Swaps       (16,933)       -       (16,933)       -		Rights	91	91		-	
Liabilities  Forwards (1,740) (1,740)  Options (263) - (263) -  Swaps (16,933) - (16,933) -		Swaps	2,967	-	2,967	-	
Forwards (1,740) (1,740)		Warrants	410	-	410	-	
Options       (263)       -       (263)       -         Swaps       (16,933)       -       (16,933)       -	Liabili	ities					
Swaps (16,933) - (16,933) -		Forwards	(1,740)	(1,740)	-	-	
47.000		Options	(263)	-	(263)	-	
Total Investment Derivative Instruments \$7,889 \$226 \$7,663 \$-		Swaps	(16,933)		(16,933)		
		Total Investment Derivative Instruments	\$7,889	\$226	\$7,663	\$-	

<sup>\*</sup> Total investments exclude Rights and Warrants, which are presented in the Investment Derivative Instruments section, and securities lending collateral, which are comprised of short-term investments and are excluded from disclosures.

(Dollar Amounts Expressed in Thousands)

#### **Equity Securities**

The majority of the System's domestic and international equity securities are actively traded on major stock exchanges or over-the-counter. Investments listed or traded on a securities exchange are valued at fair value as of the close of trading on the valuation day. Fair value is determined based on the last reported trade price on the exchange considered to be the primary market for such security. Listed investments that are not traded on a particular day are valued at the last known price which is deemed best to reflect their fair value. Equity securities classified in Level 1 are valued using prices quoted in active markets for those securities.

#### Fixed Income Securities

Debt securities consist of investments in customized separate accounts which primarily invest in negotiable obligations of the U.S. Government and U.S. Government-sponsored agencies, U.S. and non-U.S. corporations, securitized offerings backed by residential and commercial mortgages, and non-dollar denominated sovereign states. Debt securities that are not actively traded are valued by pricing vendors, which use modeling techniques that include market observable inputs required to develop a fair value, are classified in Level 2. Typical inputs include recent trades, yields, price quotes, cash flows, maturity, credit ratings and other assumptions based upon the specifics of the asset type.

#### Real Assets - Direct Holdings

Direct investments in real estate include offices, apartments, retail and industrial properties, which are classified in Level 3. Properties owned directly are subject to annual independent third party appraisals performed in accordance with the Uniform Standards of Professional Appraisal Practice. The fair value for each property is calculated by discounting the future cash flows (including the projected sales proceeds), using an appropriate discount rate. The significant unobservable inputs used in the fair value measurement of the investments in real estate are discount rate, exit capitalization rates, and revenue growth rates. These rates are based on the location, type and nature of each property, and current and anticipated market conditions, which are derived from appraisers, industry publications and from the experience of the advisor's valuations, acquisitions, asset management and capital markets departments. Certain real estate investments are leveraged, and the loan amount is recorded in the statements of fiduciary net position. Refer to Note 9 for disclosures regarding mortgage obligations. As of June 30, 2016 and 2015, total Level 3 real asset investments were \$353,180 and \$451,800 respectively. In the opinion of management, the reported amounts fairly represent the estimated fair value as of June 30, 2016 and 2015. However, the estimated fair value may differ significantly from that which could be realized in the marketplace.

#### **Investment Derivative Instruments**

The fair values of derivative contracts can be affected by changes in interest rates, foreign exchange rates, commodity prices, credit spreads, market volatility, expected return, liquidity and other factors. The majority of the System's derivative instruments are traded in the over-the-counter ("OTC") derivative market and are classified within Level 2. OTC derivatives classified within Level 2 are valued using models that utilize actively quoted or observable market input values from external market data providers, third-party pricing vendors and/or recent trading activity. The fair values of OTC derivatives for swaps and forward contracts are determined using discounted cash flow models. The fair values of option contracts and warrants are determined using Black-Scholes option pricing models. These models' key inputs include the contractual terms of the respective contract, along with significant observable inputs, including interest rates, currency rates, credit spreads, equity prices, index divident yield, volatility and other factors. The fair value of rights is calculated using the same parameters used for pricing options, including the rights subscription price, prevailing interest rates, time to expiration, and the share price of the underlying stock, taking into consideration the level of its volatility. Futures positions are settled in cash on a daily basis and thus have no fair value.

#### Investments Measured at the Net Asset Value (NAV)

Investments valued using the net asset value ("NAV") per share (or its equivalent) are investments in non-governmental pooled investment vehicles (i.e. limited partner or non-managing member interest ("LP/LLC Interest"). These alternative investments, unlike more traditional investments, generally do not have readily obtainable market values and are generally valued at the most recent net asset value per unit or based on capital account information available from the general partners of such vehicles. If June 30 valuations are not available, the value is progressed from the most recently available valuation taking into account subsequent calls and distributions.

#### Absolute Return

Absolute return investments are made both on a direct basis in limited partnerships, commingled funds, and separate accounts, and through externally managed customized separate accounts ("CSA"). Each CSA manager's investments consist of portfolio funds and co-investments as well as marketable securities held from time to time as a result of a distribution from a portfolio fund.

As of June 30, 2016, this category of investment includes twelve limited partnerships, commingled funds and customized separate accounts that invest in domestic and international investment strategies including: (1) Market neutral strategies such as equity or fixed income market neutral, fixed income arbitrage, and convertible bond arbitrage; (2) Event driven strategies such as risk arbitrage, merger arbitrage, distressed debt, credit and other event-driven strategies; (3) Equity and credit long/short strategies where there is combination of long and short positions primarily in exchange traded securities, with a net market exposure less than 100% of that of the overall equity or fixed income market. Strategies may be focused on U.S., non-U.S., and/or specialty mandates; (4) Global Macro strategies such as all market portfolios, opportunistic long-only, managed futures, currency, dedicated short selling strategies or other specialty strategies; and (5) Multi-strategies where absolute return managers invest using a combination of previously described strategies.

Absolute return investments are generally less liquid as compared to equity and fixed income and more liquid as compared to private equity. Direct absolute return investments consist of securities traded on national security exchanges, as well as securities that do not have readily determinable market values (illiquid securities). The fund manager's evaluation of the fair value of portfolio funds is based on the most recent available valuation information provided to it by the portfolio funds, adjusted for subsequent distributions from and capital contributions to such portfolio funds, if any.

Typically, the fair value of investments is determined by the fund manager in good faith and in compliance with the following guidelines:

- The value of illiquid investments is determined by the fund manager in good faith and in compliance
  with the definition of fair value under US GAAP (Financial Accounting Standards Board ("FASB")
  Accounting Standards Codification, Topic 820); provided, however, in some circumstances certain
  illiquid investments may require reporting financial information and valuations in accordance with
  accounting standards other than US GAAP, such as under International Financial Reporting Standards.
- Securities that are traded on a national securities exchange are valued at their last reported sales
  prices on the valuation date on the national securities exchange on which such securities are principally
  traded or on a consolidated tape which includes such exchange, or, if there are no sales on such date
  on such exchange or consolidated tape, at the mean between the last "bid" and "asked" prices at the
  close of trading on such date on the largest national securities exchange on which such securities are
  traded.

(Dollar Amounts Expressed in Thousands)

- Securities not traded on a national securities exchange, but traded over the counter, are valued at
  the last reported sales price as reported by the Nasdaq National Market of the Nasdaq Stock Market,
  or if such prices are not reported by the Nasdaq Stock Market, as reported by the National Quotation
  Bureau, Inc.; or if such prices are not reported by the National Quotation Bureau, the valuation of
  options or notional principal contracts not traded on a national securities exchange may be determined
  in good faith by a reliable source selected by the fund manager.
- Commodity interests traded on a United States or foreign exchange are valued at their last reported settlement price on the valuation date on the exchange on which such interests were purchased or sold. Commodity interests not traded on a United States or foreign exchange are valued at the mean between their last "bid" and "asked" prices on the date as of which the value is being determined, as reported by a reliable source selected in good faith by the fund manager.
- Short-term money market instruments and bank deposits are valued at cost plus accrued interest to the date of valuation.

These funds generally have monthly or quarterly redemption frequency and require between 30 and 90 days' prior written notice, limiting the System's ability to respond guickly to changes in market conditions.

#### Public Equity and Fixed Income Commingled Funds

The majority of assets within separate accounts for public equities and fixed income are custodied with State Street, however, a portion of the assets in a separate account can be invested in a commingled fund to provide dedicated exposure to a specific segment of the market. An example would be a core plus fixed income mandate where SCERS' receives the high yield credit exposure through a commingled fund that is managed by the investment manager, and all other exposures through custodied assets. Withdrawals from such funds may be made after valuation has been determined either daily or monthly and require up to 60 days advance notice.

#### Real Assets

Core and core plus real estate is held either directly via a real estate holding entity or as a limited partner in a commingled fund. Limited partner interest in commingled funds is valued using the NAV of the partnership. The most significant input into the NAV of such an entity is the value of its investment holdings. These holdings are valued by the general partners on a continuous basis, audited annually and periodically appraised by an independent third party. The valuation assumptions are based upon both market and property specific inputs which are not observable and involve a certain degree of expert judgment. Real estate investments in a closed-end commingled fund are long-term and illiquid in nature. As a result, investors are subject to redemption restrictions which generally limit distributions and restrict the ability of limited partners to exit a partnership investment. These investments can never be redeemed with the funds unless sold in a secondary market. Distributions from each fund will be received as the underlying investments of the funds are liquidated. It is expected that the underlying assets of the funds will be liquidated over the next 8 to 12 years.

#### **Private Equity**

Private Equity investments include limited partnerships, commingled funds and fund of funds ("FoF") that invest in domestic and international private buyouts, venture capital, mezzanine capital, direct lending, and distressed debt. Private equity investments are made both on a direct basis in limited partnerships, commingled funds, and separate accounts, and through externally managed FoF's. Each FoF manager's investments consist of portfolio funds and co-investments as well as marketable securities held from time to time as a result of a distribution from a portfolio fund.

(Dollar Amounts Expressed in Thousands)

Private equity investments are long-term and illiquid in nature. As a result, limited partners are limited in their ability to exit a partnership investment prior to its dissolution, other than selling their interest in a private equity secondary market. Distributions are received through the liquidation of the underlying assets of the fund. It is expected that the underlying assets of the fund would be liquidated over 7 to 10 years.

Limited partner interest in commingled funds is valued by using the NAV of the partnership. The most significant input into the NAV of such an entity is the value of its investment holdings. These holdings are valued by the general partners on a continuous basis, audited annually and periodically appraised by an independent third party.

Typically, the fair value of all investments is determined by the fund manager in good faith and in compliance with the definition of fair value under U.S. GAAP (FASB Accounting Standards Codification, Topic 820, Fair Value Measures and Disclosures). In some circumstances, partnership agreements require reporting financial information and valuations in accordance with accounting standards other than GAAP, such as under International Financial Reporting Standards. The measure of fair value by the fund manager is typically conducted on a quarterly basis. Marketable securities are valued according to the most recent public market price with appropriate discounts to reflect any contractual or regulatory restriction upon sale.

The fair value of each investment as reported does not necessarily represent the amount that may ultimately be realized, since such amounts depend upon future circumstances that cannot reasonably be determined until the position is actually liquidated. The evaluation of the fair value of portfolio funds is based on the most recent available valuation information provided to it by the portfolio funds, adjusted for subsequent distributions from and capital contributions to such portfolio funds, if any. The evaluation of the fair value of co-investments is based on the most recent information available at the time of valuation ascribed to such investments by the sponsor partnership. If the manager does not agree with this valuation, holds different securities than the sponsor partnership, is unable to obtain the sponsor partnership's valuation, or has information that results in a different valuation, it may use its own internal evaluation of fair value. The assumptions are based upon the nature of the investment and the underlying business. The valuation techniques vary based upon investment type and involve a certain degree of expert judgment.

### **Opportunities**

Opportunities investments are tactical investments that can be made in any allowable asset class and investment vehicle, including securities traded on national exchanges and investments that do not have a readily determinable fair value. The allocation to tactical investment opportunities is 0% to 5% of the total fund. Once an opportunities investment is made, capital to fund the opportunity is drawn from the asset class with the closest risk and return profile (equity, fixed income, absolute return, private equity or real assets). Accordingly, opportunities investments are valued by the methodology of the underlying asset class as described above. The System's interest in these commingled funds is valued by using the NAV of the partnership similar to investments in real assets or private equity. These investments can never be redeemed with the funds unless sold on a secondary market. Distributions from each fund will be received as the underlying investments of the funds are liquidated. It is expected that the underlying assets of the funds will be liquidated over the next 7 to 10 years.

#### Annual Money-Weighted Rate of Return

The money-weighted rate of return expresses investment performance, net of investment expenses, adjusted for the changing amounts actually invested. For the year ended June 30, 2016, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expenses, was (0.97%). The annual money-weighted rate of return for the year ended June 30, 2015 was 2.01%.

(Dollar Amounts Expressed in Thousands)

#### **SECTION 3: SECURITIES LENDING**

State statutes permit the System to participate in securities lending transactions and, pursuant to a Securities Lending Authorization Agreement, the System has authorized State Street Bank and Trust Company ("State Street") to act as its agent in lending the System's securities to broker-dealers and banks pursuant to an approved loan agreement.

During the years ended June 30, 2016 and 2015, on behalf of the System, State Street loaned securities held by State Street as custodian, including U.S. government and agency obligations, domestic corporate bonds, and domestic and international equities and received, as collateral, U.S. and foreign currency, securities issued or guaranteed by the U.S. government, sovereign debt of foreign countries, and irrevocable bank letters of credit. The System does not have the ability to pledge or sell collateral securities absent a borrower default. Borrowers are required to deliver collateral for each loan equal to a minimum of 100% of the market value of the loaned security.

In accordance with GASB Statement No. 28, *Accounting and Financial Reporting for Securities Lending Transactions*, securities lending collateral reported in the statement of fiduciary net position represents only cash collateral which is invested in the lending agent's cash collateral investment pool. During fiscal years ended June 30, 2016 and 2015, SCERS did not impose any restrictions on the amount of the loans that State Street made on its behalf. During fiscal years ended June 30, 2016 and 2015, there were no failures to return loaned securities or pay distributions thereon by any borrowers. Moreover, there were no losses resulting from a default of the borrowers or State Street.

During the fiscal years ended June 30, 2016 and 2015, SCERS and the borrowers maintained the right to terminate all securities lending transactions on demand. The cash collateral received on each loan was invested, together with the cash collateral of other qualified tax-exempt plan lenders, in a collective investment pool. Because the loans were terminable at will, their duration did not generally match the duration of the investments made with cash collateral. Since the collateral received from the borrowers was greater than the amounts borrowed, on June 30, 2016 and 2015, the System had minimal credit risk exposure to the borrowers. Furthermore, the lending agreement with the custodian requires the custodian to indemnify the System if the borrower fails to return the securities. The total collateral held and the fair value of the securities on loan as of June 30, 2016 were \$481,087 and \$472,397, respectively. The total collateral held and the fair value of the securities on loan as of June 30, 2015 were \$360,995 and \$352,243, respectively.

Additional information regarding the cash collateral investment pool (collateral pool) follows:

Method for Determining Fair Value. The fair value of investments held by the collateral pool is based upon valuations provided by a recognized pricing service.

<u>Policy for Utilizing Amortized Cost Method.</u> Because the collateral pool does not meet the requirements of Rule 2a-7 of the Investment Company Act of 1940, State Street has valued the collateral pool investments at fair value for reporting purposes.

Regulatory Oversight. The collateral pool is not registered with the Securities and Exchange Commission. State Street, and consequently the investment vehicles it sponsors (including the collateral pool), are subject to the oversight of the Federal Reserve Board and the Massachusetts Commissioner of Banks. The fair value of the System's position in the collateral pool is the same as the value of the collateral pool shares.

Collateral and related securities on loan at June 30, 2016 and 2015 were as follows:

		2016	
	Cash Collateral	Non-Cash	Fair Value of
Security on Loan Description	Value	Collateral Value	Securities on Loan
U.S. government and agency obligations	\$127,578	\$17,605	\$142,229
Domestic corporate bonds	46,467	-	45,592
Common and preferred stock – domestic	210,522	30,832	238,572
Common and preferred stock – international	37,953	10,130	46,004
Total	\$422,520	\$58,567	\$472,397

2013				
Cash Collateral	Non-Cash	Fair Value of		
Value	Collateral Value	Securities on Loan		
\$117,305	\$3,263	\$118,158		
6,658	2,165	8,630		
153,505	32,081	182,337		
43,182	2,836	43,118		
\$320,650	\$40,345	\$352,243		
	Value \$117,305 6,658 153,505 43,182	Value         Collateral Value           \$117,305         \$3,263           6,658         2,165           153,505         32,081           43,182         2,836		

#### Securities Lending Collateral Credit Risk

All of the cash collateral received for securities lending is invested in the State Street Quality D Short-Term Investment Fund ("STIF"), which is not rated by credit rating agencies. At the time of purchase, all securities with maturities of 13 months or less must be rated at least A1, P1 or F1 and all securities with maturities in excess of 13 months must be rated A- or A3 by any two of the nationally-recognized statistical rating organizations or, if unrated, be of comparable quality. The fund may invest in other State Street managed vehicles provided they conform to the guidelines. As of June 30, 2016 and 2015, the STIF investments had a rating of at least A or A1/P1, and since the collateral received from borrowers was greater than the amounts borrowed, the System had minimal credit risk exposure to the borrowers.

## Securities Lending Collateral Interest Rate Risk

Quality D's Investment Policy Guidelines provide that the lending agent shall maintain the dollar-weighted average maturity of the Quality D fund in a manner that the lending agent believes is appropriate to the objective of the Quality D Fund; provided that (i) in no event shall any Eligible Security be acquired with a remaining legal final maturity of greater than 18 months, (ii) the lending agent shall maintain a dollar-weighted average maturity D Fund not to exceed 75 calendar days and (iii) the lending agent shall maintain a dollar-weighted average maturity to final of the Quality D Fund not to exceed 180 calendar days. As of June 30, 2016 and 2015, the weighted average maturity was 43 days and 42 days, respectively.

(Dollar Amounts Expressed in Thousands)

#### SECTION 4: DEPOSIT AND INVESTMENT RISKS

Pursuant to GASB Statement No. 40, *Deposit and Investment Risk Disclosure*, the following schedules disclose the System's investments subject to certain types of risk.

#### Credit Risk

Credit risk is the risk that an issuer or other counterparty to a debt instrument will not fulfill its obligations. This is measured by the assignment of ratings by nationally-recognized statistical rating organizations.

SCERS utilizes external investment managers to manage its portfolios. SCERS' Investment Policy specifies that fixed income investments will include both active and enhanced index investments in U.S. Treasury and agency securities, corporate bonds, mortgage-backed and asset-backed securities and non-dollar denominated sovereign and corporate debt.

The actively-managed investments will have a minimum average credit quality rating of A2 by Moody's Investor Services or A by Standard and Poor's Corporation. Portfolio diversification is constrained by the following parameters in order to minimize overall market and credit risk:

- No more than 10% of the portfolio will be concentrated in any one issuer except U.S. Government and agency securities.
- No more than 20% of the portfolio will be invested in high yield or below investment grade straight securities.
- No more than 15% of the portfolio will be invested in convertible securities, which include bonds and preferred issues.
- No more than 20% of the portfolio will be invested in non-U.S. dollar bonds.

The System's policy is that the enhanced index investments will have a credit quality rating similar to the Barclays Capital Aggregate Index. Portfolio diversification is constrained by the following parameters in order to minimize overall market and credit risk:

- The maximum holding in a single issuer, excluding U.S. Government and government-sponsored enterprises, is 5% of the portfolio's total fair value.
- The minimum individual issue credit rating is BBB- by S&P, or an equivalent rating by Moody's, Fitch or Dominion Bond Rating Service.
- The portfolio duration will be within ± 0.25 years of the index duration as measured by the manager.
- All securities must be denominated in U.S. dollars.

(Dollar Amounts Expressed in Thousands)

The following tables depict the fixed income assets by credit rating as of June 30, 2016 and 2015:

Fixed Income As of June 30, 2016

					U.S.					
S&P		1	0 10		Government		Collateralized	Mortga	age Pass-T	hrough
Quality Rating	Total	Securitized Obligations	Credit Obligations	Commingled Funds	& Agency Obligations	International Government	Mortgage Obligations	FHLMC	FNMA	GNMA
AAA	\$140,346	\$127,489	\$5,015		\$-		\$7,842	\$-	\$-	\$-
AA+	223,852	30,960	10,680	-	-	-	9,639	68,262	104,311	-
AA	19,710	13,863	5,679	-	-	-	168	-	-	-
AA-	12,773	755	12,018	-	-	-	-	-	-	-
A+	30,611	13,531	13,698	-	-	-	3,382	-	-	-
Α	35,194	4,644	29,170	-	-	1,380	-	-	-	-
A-	33,373	884	32,489	-	-	-	-	-	-	-
BBB+	90,003	828	86,317	-	-	474	2,384	-	-	-
BBB	62,346	1,530	60,288	-	-	237	291	-	-	-
BBB-	64,060	1,557	60,968	-	-	-	1,535	-	-	-
BB+	31,288	8,852	13,567	-	-	5,953	2,916	-	-	-
BB	16,036	1,483	14,277	-	-	-	276	-	-	-
BB-	13,488	2,536	10,952	-	-	-	-	-	-	-
B+	37,289	1,078	36,211	-	-	-	-	-	-	-
В	6,963	214	6,749	-	-	-	-	-	-	-
B-	12,355	943	5,910	-	-	406	5,096	-	-	-
CCC+	1,507	-	1,507	-	-	-	-	-	-	-
CCC	611	-	-	-	-	-	611	-	-	-
D	2,957	1,113	-	-	-	-	1,844	-	-	-
NA	319,677	-	-		277,881	-	-	-	-	41,796
NR	401,418	10,764	1,991	369,032	-	-	19,631	-	-	-
Total	\$1,555,857	\$223,024	\$407,486	\$369,032	\$277,881	\$8,450	\$55,615	\$68,262	\$104,311	\$41,796

NA represents securities explicitly guaranteed by the U.S. government, which are not subject to the GASB 40 credit risk disclosure requirements. NR represents those securities that are not rated.

(Dollar Amounts Expressed in Thousands)

## Fixed Income As of June 30, 2015

S&P					U.S.		Collatoralized			
Quality		Securitized	Credit	Commingled	Government & Agency	International	Collateralized Mortgage	Mort	gage Pass-T	hrough
Rating	Total	Obligations			Obligations	Government	Obligations	FHLMC	FNMA	GNMA
AAA	\$130,133	\$103,412	\$3,096	\$-	\$-	\$-	\$23,625	\$-	\$-	\$-
AA+	233,914	24,484	7,943	-	-	-	22,631	45,457	133,399	-
AA	24,672	18,262	6,410	-	-	-	-	-	-	-
AA-	11,791	1,704	10,087	-	-	-	-	-	-	-
A+	28,330	12,517	11,078	-	-	-	4,735	-	-	-
Α	33,503	5,432	26,815	-	-	-	1,256	-	-	-
A-	43,270	3,591	38,029	-	-	1,650	-	-	-	-
BBB+	74,832	4,396	67,750	-	-	2,036	650	-	-	-
BBB	50,750	4,114	45,677	-	-	517	442	-	-	-
BBB-	58,176	965	56,951	-	-	-	260	-	-	-
BB+	24,904	7,677	11,214	-	-	5,210	803	-	-	-
BB	17,136	-	16,761	-	-	-	375	-	-	-
BB-	10,718	-	10,402	-	-	316	-	-	-	-
B+	12,681	-	10,340	-	-	247	2,094	-	-	-
В	7,427	332	7,095	-	-	-	-	-	-	-
B-	9,746	1,525	4,843	-	-	-	3,378	-	-	-
CCC+	404	-	404	-	-	-	-	-	-	-
CCC	673	-	-	-	-	-	673	-	-	-
D	3,541	1,197	-	-	-	-	2,344	-	-	-
NA	275,599	-	-	-	246,379	-	-	-	-	29,220
NR	418,597	5,211	-	385,359	-	3,946	23,995	-	86	
Total	\$1,470,797	\$194,819	\$334,895	\$385,359	\$246,379	\$13,922	\$87,261	45,457	\$133,485	\$29,220

NA represents securities explicitly guaranteed by the U.S. government, which are not subject to the GASB 40 credit risk disclosure requirements. NR represents those securities that are not rated.

#### Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributed to the magnitude of a government's investment in a single issuer. As of June 30, 2016 and 2015, the System had no single issuer that exceeds 5% of total investments per GASB Statement No. 40 disclosure requirements or any one issuer which represents 5% or more of total fiduciary net position in accordance with GASB Statement No. 67. Investments issued or explicitly guaranteed by the U.S. government and investments in mutual funds, external investment pools, and other pooled investments are exempt from the disclosure requirements.

The System's investment policy does not allow more than 5% of the total portfolio fair value to be invested in any one issuer, and as of June 30, 2016 and 2015, the System had no issuer that exceeds 5% of total portfolio market value. As noted in the previous discussion of credit risk, manager investment guidelines place limitations on the maximum holdings in any one issuer.

#### **Custodial Credit Risk**

Custodial credit risk is the risk that in the event a financial institution or counterparty fails, the System would not be able to recover the value of its deposits, investments, or securities. As of June 30, 2016 and 2015, the bank balance of cash and cash equivalents on deposit with SCERS' custodian bank and financial institutions totaled \$19,128 and \$22,860, respectively, of which \$15,896 and \$18,588 were not insured by Federal Depository Insurance Corporation ("FDIC") and were exposed to custodial credit risk. The System believes that the risk is not significant because the cash is held with major financial institutions.

As of June 30, 2016 and 2015, deposits held in the System's name for the margin accounts of \$58,771 and \$32,218, respectively, were not insured or not collateralized, and these deposits were exposed to custodial credit risk.

As of June 30, 2016 and 2015, 100% of the System's investments held with the custodian were held in the System's name, and the System is not exposed to custodial credit risk related to these investments. There are no general policies relating to custodial credit risk.

#### Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. The investment guidelines negotiated with the actively-managed external portfolio managers give the managers the discretion to deviate within ± 20% from the effective duration of the relevant Barclays Capital Aggregate benchmark based on the portfolio total.

The following tables depict the duration in years of the long-term fixed income portfolio vs. the benchmark.

Long-Term Fixed Income Investments Duration				
As of June 30, 2016		Effective	Benchmark	
Type of Securities	Fair Value	Duration	Duration	Difference
Securitized Obligations				
Asset-Backed Securities	\$150,235	0.60	2.28	(1.68)
Collateralized Mortgage-Backed Securities	72,789	4.41	5.05	(0.64)
Credit Obligations				
Corporate Bonds	344,338	6.53	7.19	(0.66)
Municipals	7,860	14.53	12.55	1.98
Yankee	28,642	7.74	6.15	1.59
U.S. Government & Agency Obligations				
Agency Securities	9,883	3.92	3.59	0.33
U.S. Treasury	267,998	7.09	6.21	0.88
International Government	8,450	6.07	13.48	(7.41)
Collateralized Mortgage Obligations	55,615	1.59	5.86	(4.27)
Mortgage Pass-Through				
FHLMC	68,262	2.71	2.20	0.51
FNMA	104,311	2.77	2.28	0.49
GNMA	41,796	3.31	2.68	0.63
No Effective Duration				
Commingled Funds	395,678	NA	NA	NA
Total Fair Value with Weighted Average	\$1,555,857	4.90	5.35	(0.45)

(Dollar Amounts Expressed in Thousands)

Long-Term Fixe	ed Income	Investments	Duration
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As of June 30, 2015		Effective	Benchmark	
Type of Securities	Fair Value	Duration	Duration	Difference
Securitized Obligations				
Asset-Backed Securities	\$153,323	1.41	2.52	(1.11)
Collateralized Mortgage-Backed Securities	41,496	4.03	3.83	0.20
Credit Obligations				
Corporate Bonds	307,602	6.57	7.08	(0.51)
Municipals	872	9.83	12.86	(3.03)
Yankee	26,421	8.05	6.15	1.90
U.S. Government & Agency Obligations				
Agency Securities	15,908	3.55	3.62	(0.07)
U.S. Treasury	230,471	6.69	5.61	1.08
International Government	13,922	6.56	12.95	(6.39)
Collateralized Mortgage Obligations	87,261	3.31	5.91	(2.60)
Mortgage Pass-Through				
FHLMC	45,457	3.94	3.69	0.25
FNMA	133,485	3.97	3.81	0.16
GNMA	29,220	5.14	4.21	0.93
No Effective Duration				
Commingled Funds	385,359	NA	NA	NA
Total Fair Value with Weighted Average	\$1,470,797	5.39	5.42	(0.03)

# Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or a deposit. The following tables represent cash and investments held in a foreign currency as of June 30, 2016 and 2015:

# As of June 30, 2016

	Cash & Cash		Fixed	Private			
	Equivalents	Equity	Income	Equity	Opportunities		Total
Australian Dollar	\$844	\$58,349	\$15,563	\$-	\$-	\$-	\$74,756
Brazilian Real	-	842	12,789	-	-	-	13,631
Canadian Dollar	156	47,642	-	-	-	-	47,798
Colombian Peso	(113)	-	-	-	-	-	(113)
Chilean Peso	-	-	14,335	-	-	-	14,335
Danish Krone	561	12,332	-	-	-	-	12,893
Euro Currency	2,550	222,819	27,455	40,938	30,645	30,835	355,242
Hong Kong Dollar	331	26,791	-	-	-	-	27,122
Hungarian Forint	-	484	8,512	-	-	-	8,996
Indian Rupee	15	1,942	9,909	-	-	-	11,866
Indonesian Rupiah	-	536	10,058	-	-	-	10,594
Japanese Yen	2,123	192,955	-	-	-	-	195,078
Malaysian Ringgit	-	-	9,422	-	-	-	9,422
Mexican Peso	243	3,813	29,326	-	-	-	33,382
New Israeli Sheqel	-	7,662	-	-	-	-	7,662
New Zealand Dollar	9	10,702	7,813	-	-	-	18,524
Norwegian Krone	12	18,613	6,162	-	-	-	24,787
Philippine Peso	-	596	-	-	-	-	596
Polish Zloty	-	-	4,574	-	-	-	4,574
Pound Sterling	946	146,806	13,062	-	29,955	-	190,769
Singapore Dollar	241	12,989	-	-	-	-	13,230
South African Rand	98	1,978	7,030	-	-	-	9,106
South Korean Won	-	651	-	-	-	-	651
Swedish Krona	304	30,509	14,399	-	-	-	45,212
Swiss Franc	12	42,809	-	-	-	-	42,821
Thailand Baht	-	1,014	-	-	-	-	1,014
Turkish Lira		1,491					1,491
Total	\$8,332	\$844,325	\$190,409	\$40,938	\$60,600	\$30,835	\$1,175,439

(Dollar Amounts Expressed in Thousands)

As of June 30, 2015

	Cash & Cash		Fixed	Private			
Local Currency Name	Equivalents	Equity	Income	Equity	Opportunities	Real Assets	Total
Australian Dollar	\$2,467	\$60,740	\$14,604	\$-	\$-	\$-	\$77,811
Brazilian Real	-	-	9,965	-	-	-	9,965
Canadian Dollar	265	59,239	-	-	-	-	59,504
Danish Krone	-	7,984	-	-	-	-	7,984
Euro Currency	2,442	221,981	22,403	33,771	-	10,047	290,644
Hong Kong Dollar	1,921	30,348	-	-	-	-	32,269
Hungarian Forint	-	-	7,907	-	-	-	7,907
Indian Rupee	-	1,719	-	-	-	-	1,719
Indonesian Rupiah	-	-	9,319	-	-	-	9,319
Japanese Yen	3,487	199,665	-	-	-	-	203,152
Malaysian Ringgit	-	-	5,688	-	-	-	5,688
Mexican Peso	120	2,746	28,240	-	-	-	31,106
New Israeli Sheqel	24	8,801	-	-	-	-	8,825
New Zealand Dollar	-	8,096	6,536	-	-	-	14,632
Norwegian Krone	-	12,532	-	-	-	-	12,532
Philippine Peso	-	187	-	-	-	-	187
Polish Zloty	-	-	4,357	-	-	-	4,357
Pound Sterling	886	187,181	316	-	28,292	-	216,675
Singapore Dollar	40	12,722	-	-	-	-	12,762
South African Rand	9	1,571	8,533	-	-	-	10,113
South Korean Won	-	1,116	8,593	-	-	-	9,709
Swedish Krona	289	34,074	-	-	-	-	34,363
Swiss Franc	23	59,255	-	-	-	-	59,278
Thailand Baht	7	2,269	-	-	-	-	2,276
Turkish Lira		1,095				_	1,095
Total	\$11,980	\$913,321	\$126,461	\$33,771	\$28,292	\$10,047	\$1,123,872

Foreign currency is comprised of international investment proceeds and income to be repatriated into U.S. dollars and funds available to purchase international securities. The System does not have a foreign currency risk policy.

#### SECTION 5: HIGHLY SENSITIVE INVESTMENTS

As of June 30, 2016 and 2015, SCERS' investments included Collateralized Mortgage Obligations and Mortgage Pass-Through securities totaling \$269,984 and \$295,423 respectively. These securities are highly sensitive to interest rate fluctuations in that they are subject to early payment in a period of declining interest rates. The resulting reduction in expected total cash flows affects the fair value of these securities.

The System's investment policy allows investments in commodities and futures. SCERS' investments include a target allocation of 2% of total fund assets in commodities and commodity futures as part of the Real Assets asset class. Commodities are a real asset class that produces a different pattern of returns to other asset classes. Unique supply and demand factors and the way commodities are traded are the main reasons for the low correlation between commodities and stocks and bonds. Not only is correlation low with traditional asset classes in general, but importantly, commodities tend to perform well when stocks and bond prices fall.

(Dollar Amounts Expressed in Thousands)

Spot commodity prices have historically been a poor investment and have declined in real terms. However, investment in collateralized commodity futures provides similar returns to stocks over the long-term. The futures market is an efficient way for producers to hedge price risk by forward-selling commodities at lower prices relative to spot prices to investors and speculators generating a roll yield (backwardation).

In general, commodities are volatile investments that are prone to large price spikes. By investing in commodity futures, investors get exposure to short-term price movement and risk, as well as long-term price trends. This price volatility and the need for producers to hedge their production provides the fundamental rationale for why investment managers pay the risk premium to speculators and long-only investors in the commodity markets.

As of June 30, 2016 and 2015, total commodities investments were \$120,795 and \$203,987, respectively. The investments consist of commodity futures hedge fund-of-funds, a commodity index fund, a commodity futures strategic fund, and partial exposure through a customized, diversified real assets strategy.

#### **Derivatives**

The System's investment porfolios contain individual securities as well as investments in external investment pools. The System's investment policy allows investment managers to use derivative instruments for certain purposes and within certain parameters. Such instruments include futures contracts, currency forward contracts, option contracts, swap agreements, rights and warrants. The System permits the use of derivatives to minimize the exposure of certain investments to adverse fluctuations in financial and currency markets. The System does not permit the use of derivatives for speculative use or to create leverage, however, this does not apply to investments in external pools. As of June 30, 2016 and 2015, the derivative instruments held by the System are considered investments and not hedges for accounting purposes. The gains and losses arising from this activity are recognized as incurred in the Statement of Changes in Fiduciary Net Position.

The tables below present the related net appreciation/(depreciation) in fair value, the fair value amounts and the notional amounts of derivative instruments outstanding at June 30, 2016 and 2015:

Investment Derivatives	Net Appreciation/(Depreciation) in Fair Value of Investments	Fair Value at June 30	, 2016	
Instruments	through June 30, 2016	Classification	Amount	Notional
Forwards	\$(425)	Accounts Payable and	\$(2,840)	\$222,804
Swaps	(43,698)	Other Accrued Liabilities	(20,049)	(16,626)
Futures (Domestic and Foreign)	(12,904)	Accrued Investment	-	(95,209)
Options	3	Income Receivables	-	-
Rights	186	Facility Consulting	49	151 shares
Warrants	(211)	Equity Securities	-	-
Total Derivatives Instruments	\$(57,049)		\$(22,840)	

(Dollar Amounts Expressed in Thousands)

Investment Derivatives	Net Appreciation/(Depreciation) in Fair Value of Investments	Fair Value at June 30,		
Instruments	through June 30, 2015	Classification	Amount	Notional
Futures (Domestic and Foreign)	\$25,495	A I I I I	\$-	\$(16,244)
Forwards	5,975	Accrued Investment Income Receivables	21,191	223,880
Options	(841)	moome necestables	163	67,820
Rights	62	Equity Securities	91	268 shares
Warrants	224	Equity Securities	410	115 shares
		Accounts Payable and		
Swaps	34,218	Other Accrued Liabilities	(13,966)	53,734
Total Derivatives Instruments	\$65,133		\$7,889	

Futures contracts are financial instruments that derive their value from underlying indices or reference rates and are marked-to-market at the end of each trading day. Daily settlement of gains and losses occur on the following business day. As a result, the instruments themselves have no fair value at June 30, 2016 or 2015 or at the end of any trading day. Daily settlement of gains and losses is a risk control measure to limit counterparty credit risk. Futures variation margin amounts are settled each trading day and recognized in the financial statements under net appreciation/(depreciation) in fair value of investments as they are incurred.

Forward contracts are obligations to buy or sell a currency or other commodity at a specified exchange rate and quantity on a specific future date. The fair value of the foreign currency forwards is the unrealized gain or loss calculated based on the difference between the specified exchange rate and the closing exchange rate at June 30, 2016 and 2015.

#### Counterparty Credit Risk

Below is a schedule showing the counterparty credit ratings of the System's non-exchange traded investment derivative instruments outstanding and subject to loss at June 30, 2016 and 2015:

June 30, 2016

S&P Rating	Forwards	Swaps	Total
AA-	\$32	\$-	\$32
A+	739	-	739
A	1,128	1	1,129
A-	18	1,817	1,835
BBB+	296	507	803
Investments in Asset Position	2,213	2,325	4,538
Investments in Liability Position	(5,053)	(22,374)	(27,427)
Total Investments in Asset/(Liability) Position	\$(2,840)	\$(20,049)	\$(22,889)

June 30, 2015

S&P Ratings	Forwards	Swaps	Total
AA-	\$21,309	\$-	\$21,309
A+	493	-	493
A	732	443	1,175
A-	232	1,549	1,781
BBB+	165	975	1,140
Subtotal Investments in Asset Position	22,931	2,967	25,898
Investments in Liability Position	(1,740)	(16,933)	(18,673)
Total Investments in Asset/(Liability) Position	\$21,191	\$(13,966)	\$7,225

The System could be exposed to risk if the counterparties to derivative contracts are unable to meet the terms of the contracts. The System's investment managers seek to control this risk through counterparty credit evaluations and approvals, counterparty credit limits, and exposure monitoring procedures. The System anticipates that the counterparties will be able to satisfy their obligations under the contracts.

The aggregate fair value of investment derivative instruments in an asset position subject to counterparty risk at June 30, 2016 and 2015 were \$4,538 and \$25,898. This represents the maximum loss that would be recognized at the reporting date if all counterparties failed to perform as contracted. The System did not have any master netting agreements with its counterparties at June 30, 2016 and 2015, except that certain investment managers used netting arrangements at their discretion to minimize counterparty risks. The above schedules present exposure for similar instruments with the same counterparty on a net basis.

At June 30, 2016 and 2015, the System did not have any significant exposure to counterparty credit risk with any single party.

(Dollar Amounts Expressed in Thousands)

# Interest Rate Risk

At June 30, 2016 and 2015, the System is exposed to interest rate risk on its derivative instruments as presented in the following tables:

As of June 30, 2016

Derivative Instrument Summary

		Investment Maturities (in years)				
Investment Type	Fair Value	Less Than 1	1-5	6 - 10	More than 10	
Credit Default Swaps Bought	\$(592)	\$-	\$(592)	\$-	\$-	
Credit Default Swaps Written	(45)	-	(45)	-	-	
Currency Swaps	(544)	148	-	(692)	-	
Fixed Interest Rate Swaps	(8,475)	-	(320)	(8,137)	(18)	
Total Return Swaps Equity	(10,393)	(10,393)	-	-		
Total	\$(20,049)	\$(10,245)	\$(957)	\$(8,829)	\$(18)	

# Derivative Instruments Highly Sensitive to Interest Changes

Investment Type	Reference Rate	Fair Value	Notional Value
Currency Swaps	USD Receive Variable 3-month LIBOR, JPY Pay Variable 3-month LIBOR	\$(255)	\$806
Currency Swaps	JPY Receive Variable 3-month LIBOR, USD Pay Variable 3-month LIBOR	240	926
Currency Swaps	USD Receive Variable 3-month LIBOR, JPY Pay Variable 3-month LIBOR	(1,042)	3,219
Currency Swaps	JPY Receive Variable 3-month LIBOR, USD Pay Variable 3-month LIBOR	972	3,704
Currency Swaps	JPY Receive Variable 3-month LIBOR, USD Pay Fixed 0.23435%	120	926
Currency Swaps	USD Receive Fixed 1.00%, JPY Pay Variable 3-month LIBOR	(120)	806
Currency Swaps	USD Receive Fixed 0.714%, JPY Pay Variable 3-month LIBOR	(485)	3,219
Currency Swaps	JPY Receive Variable 3-month LIBOR, USD Pay Fixed 0.714%	485	3,704
Currency Swaps	USD Receive Variable 3-month LIBOR, EUR Pay Variable 3-month EURIB	(375)	2,528
Currency Swaps	EUR Receive Variable 3-month LIBOR, USD Pay Fixed 0.187%	(84)	2,444
Subtotal - Currency Swaps	S	\$(544)	\$22,282
Interest Rate Swaps	Receive Variable 12-month LIBOR, Pay Fixed 0.346%	\$(9)	\$333
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 1.8235%	(601)	17,345
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 1.85042%	(513)	11,600
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 1.78695%	(1,702)	41,720
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 2.23662%	(2,574)	34,790
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 1.74090%	(769)	19,850
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 2.01273%	(1,226)	22,000
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 1.78784%	(339)	8,050
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 1.9822%	(189)	3,480
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 0.324%	(42)	1,489
Interest Rate Swaps	Receive Variable 0-month SONIA, Pay Fixed 0.639%	(21)	1,003
Interest Rate Swaps	Receive Variable 6-month EONIA, Pay Fixed 0.318%	(5)	822
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 1.416%	(83)	4,400

# Derivative Instruments Highly Sensitive to Interest Changes (continued)

Investment Type	Reference Rate	Fair Value	Notional Value
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 1.40642%	(40)	2,200
Interest Rate Swaps	Receive Variable 6-month LIBOR, Pay Fixed 1.4089%	(75)	4,100
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 1.40495%	(53)	2,900
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 1.4116%	(20)	1,100
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 1.49515%	(38)	1,600
Interest Rate Swaps	Receive Variable 6-month EURIB, Pay Fixed 1.357%	(91)	1,733
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 1.57819%	(179)	6,830
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 1.58372%	(36)	1,360
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 1.51277%	(77)	3,510
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 1.39860%	(104)	7,170
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 1.39371%	(51)	3,585
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 1.39480%	(51)	3,585
Interest Rate Swaps	Receive Variable 6-month EURIB, Pay Fixed 0.79200%	1	444
Interest Rate Swaps	Receive Variable 6-month LIBOR, Pay Variable 6-month LIBOR	-	822
Interest Rate Swaps	Receive Variable 6-month LIBOR, Pay Variable 6-month LIBOR	-	444
Interest Rate Swaps	Receive Fixed 6.72000%, Pay Variable 0-month MXIBT	3	271
Interest Rate Swaps	Receive Fixed 6.12000%, Pay Variable 0-month MXIBT	27	1,837
Interest Rate Swaps	Receive Fixed 5.11000%, Pay Variable 0-month MXIBT	(7)	1,873
Interest Rate Swaps	Receive Fixed 8.18000%, Pay Variable 3-month JIBAR	(11)	707
Interest Rate Swaps	Receive Fixed 5.79500%, Pay Variable 0-month MXIBT	(8)	789
Interest Rate Swaps	Receive Fixed 7.43000%, Pay Variable 3-month JIBAR	(5)	102
Interest Rate Swaps	Receive Fixed 7.44000%, Pay Variable 3-month JIBAR	(30)	608
Interest Rate Swaps	Receive Fixed 7.43000%, Pay Variable 3-month JIBAR	(12)	246
Interest Rate Swaps	Receive Fixed 4.63000%, Pay Variable 1-month TIIE	(12)	2,266
Interest Rate Swaps	Receive Fixed 7.85500%, Pay Variable 3-month LIBOR	3	1,659
Interest Rate Swaps	Receive Fixed 9.33000%, Pay Variable 3-month JIBAR	21	300
Interest Rate Swaps	Receive Fixed 1.75500%, Pay Variable 3-month LIBOR	333	13,840
Interest Rate Swaps	Receive Fixed 9.33000%, Pay Variable 3-month ZIB	21	294
Interest Rate Swaps	Receive Fixed 1.58700%, Pay Variable 6-month EURIB	80	2,744
Interest Rate Swaps	Receive Fixed 1.47710%, Pay Variable 6-month LIBOR	18	388
Interest Rate Swaps	Receive Fixed 0.05000%, Pay Variable 12-month LIBOR	(8)	1,222
Interest Rate Swaps	Receive Fixed 0.45800%, Pay Variable 12-month LIBOR	(1)	3,033
Interest Rate Swaps	Receive Fixed 0.67800%, Pay Variable 6-month EURIB	-	822
Subtotal - Interest Rate Sw	vaps	\$(8,475)	\$241,266
Total Return Swaps Equity	Receive MSCI World ex-US, Pay Variable 3-month LIBOR	\$(3,621)	\$(113,942)
Total Return Swaps Equity	Receive MSCI World ex-US, Pay Variable 3-month LIBOR	(3,211)	(110,687)
Total Return Swaps Equity	Receive MSCI World ex-US, Pay Variable 3-month LIBOR	(3,561)	(114,431)
Subtotal - Total Return Swa	aps Equity	\$(10,393)	\$(339,060)

(Dollar Amounts Expressed in Thousands)

As of June 30, 2015

Derivative Instrument Summary

		Investment Maturities (in years)			
Investment Type	Fair Value	Less Than 1	1 - 5	6 - 10	More than 10
Credit Default Swaps Bought	\$(1,849)	\$-	\$(1,849)	\$-	\$-
Currency Swaps	84	-	80	4	-
Fixed Income Options Bought	388	388	-	-	-
Fixed Income Options Written	(234)	(234)	-	-	-
Pay Fixed Interest Rate Swaps	1,165	(9)	(264)	1,438	-
Receive Fixed Interest Rate Swaps	(109)	4	71	(160)	(24)
Total Return Swaps Equity	(13,257)	(13,257)		-	
Total	\$(13,812)	\$(13,108)	\$(1,962)	\$1,282	\$(24)
	7(13)012)	7(20)200)	7(1)302/	71,202	7(21)

# Derivative Instruments Highly Sensitive to Interest Rate Changes

Investment Type	Reference Rate	Fair Value	Notional Value
Currency Swaps	EUR Receive Variable 3-month LIBOR, USD Pay Fixed .2685%	\$(77)	\$2,451
Currency Swaps	JPY Receive Variable 3-month LIBOR, USD Pay Fixed .23435%	(30)	776
Currency Swaps	JPY Receive Variable 3-month LIBOR, USD Pay Fixed .672313%	(109)	3,106
Currency Swaps	JPY Receive Variable 3-month LIBOR, USD Pay Variable 3-month LIBOR	(143)	3,882
Currency Swaps	USD Receive Fixed .32029%, JPY Pay Variable 3-month LIBOR	116	3,219
Currency Swaps	USD Receive Fixed 1.00%, JPY Pay Variable 3-month LIBOR	29	807
Currency Swaps	USD Receive Variable 3-month LIBOR, EUR Pay Variable 3-month EURIB	154	2,528
Currency Swaps	USD Receive Variable 3-month LIBOR, JPY Pay Variable 3-month LIBOR	144	4,025
Subtotal - Currency Swaps		\$84	\$20,794
Interest Rate Swaps	Receive Variable 12-month LIBOR, Pay Fixed .346%	\$(24)	\$2,451
Interest Rate Swaps	Receive Variable 12-month SONIA, Pay Fixed 1.325%	48	1,101
Interest Rate Swaps	Receive Variable 1-month SONIA, Pay Fixed 1.96%	(8)	849
Interest Rate Swaps	Receive Variable 1-month USOIS, Pay Fixed .2775%	(5)	45,600
Interest Rate Swaps	Receive Variable 1-month USOIS, Pay Fixed .282%	(4)	39,100
Interest Rate Swaps	Receive Variable 3-month CDOR, Pay Fixed 1.71%	(79)	3,885
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed .966%	-	11,930
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 1.78695%	1,332	82,900
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 1.8235%	(161)	27,640
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 1.85042%	1	600
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 2.23662%	65	28,800
Interest Rate Swaps	Receive Fixed .18125%, Pay Variable 12-month LIBOR	2	37,400
Interest Rate Swaps	Receive Fixed .185%, Pay Variable 12-month LIBOR	2	32,000
Interest Rate Swaps	Receive Fixed .895%, Pay Variable 6-month EVENT	(34)	1,393
Interest Rate Swaps	Receive Fixed .966%, Pay Variable 3-month LIBOR	50	11,930
Interest Rate Swaps	Receive Fixed 1.14875%, Pay Variable 6-month LIBOR	(11)	776
Interest Rate Swaps	Receive Fixed 1.193%, Pay Variable 6-month LIBOR	(2)	327
Interest Rate Swaps	Receive Fixed 3.91%, Pay Variable 0-month CLICP	(1)	352

(Dollar Amounts Expressed in Thousands)

# Derivative Instruments Highly Sensitive to Interest Changes (continued)

Investment Type	Reference Rate	Fair Value	Notional Value
Interest Rate Swaps	Receive Fixed 4.00%, Pay Variable 6-month BBSW	27	576
Interest Rate Swaps	Receive Fixed 4.45%, Pay Variable 0-month MXIBT	6	1,880
Interest Rate Swaps	Receive Fixed 4.63%, Pay Variable 1-month TIIE	14	2,664
Interest Rate Swaps	Receive Fixed 5.05%, Pay Variable 0-month COOVI	-	27
Interest Rate Swaps	Receive Fixed 5.05%, Pay Variable 1-month COOIS	(1)	98
Interest Rate Swaps	Receive Fixed 5.11%, Pay Variable 0-month MXIBT	3	2,202
Interest Rate Swaps	Receive Fixed 5.795%, Pay Variable 0-month MXIBT	(37)	927
Interest Rate Swaps	Receive Fixed 6.02%, Pay Variable 1-month COOIS	(3)	196
Interest Rate Swaps	Receive Fixed 6.12%, Pay Variable 0-month MXIBT	(23)	2,161
Interest Rate Swaps	Receive Fixed 6.72%, Pay Variable 0-month MXIBT	(10)	319
Interest Rate Swaps	Receive Fixed 7.43%, Pay Variable 3-month JIBAR	(23)	420
Interest Rate Swaps	Receive Fixed 7.44%, Pay Variable 3-month JIBAR	(40)	733
Interest Rate Swaps	Receive Fixed 8.18%, Pay Variable 3-month JIBAR	(28)	853
Subtotal - Interest Rate Sw	aps	\$1,056	\$342,090
Total Return Swaps Equity	Pay Variable 3-month LIBOR, Receive MSCI World ex-US	\$(14,232)	\$(376,150)
Total Return Swaps Equity	Pay Variable 3-month LIBOR, Receive Russell 2000 Growth	975	(63,000)
Subtotal - Return Swaps Eq	\$(13,257)	\$(439,150)	

(Dollar Amounts Expressed in Thousands)

# Foreign Currency Risk

At June 30, 2016 and 2015, the System is exposed to foreign currency risk on its investments in forward contracts and swaps denominated in foreign currencies as presented in the following tables:

As of June 30, 2016	Forward Contracts		Swaps	Total Exposure
Currency Name	Net Receivables	Net Payables		
Australian Dollar	\$43	\$(51)	\$-	\$(8)
Canadian Dollar	(119)	12	-	(107)
Colombian Peso	-	(19)	-	(19)
Czech Koruna	(62)	-	-	(62)
Danish Krone	(4)	-	-	(4)
Euro Currency	(3)	152	(159)	(10)
Hungarian Forint	-	10	-	10
Indian Rupee	(4)	(2)	-	(6)
Japanese Yen	373	(174)	1,817	2,016
Malaysian Ringgit	3	-	-	3
Mexican Peso	(52)	10	2	(40)
New Israeli Sheqel	(2)	-	-	(2)
Taiwan Dollar	(2)	(9)	-	(11)
New Zealand Dollar	243	(210)	-	33
Norwegian Krone	(148)	23	-	(125)
Philippine Peso	-	2	-	2
Polish Zloty	(24)	12	-	(12)
Pound Sterling	(996)	708	(2)	(290)
Russian Ruble	30	(24)	-	6
Singapore Dollar	15	(31)	-	(16)
South African Rand	-	(31)	(14)	(45)
Swedish Krona	(177)	49	-	(128)
Swiss Franc	-	28	-	28
Turkish Lira	20	-	-	20
Yuan Renminbi	(3)	13		10
Sub Total	(869)	468	1,644	1,243
US Dollar	<u> </u>	(2,439)	(21,693)	(24,132)
Total	\$(869)	\$(1,971)	\$(20,049)	\$(22,889)

As of June 30, 2015	Forward Contracts		Swaps	Total Exposure
Currency Name	Net Receivables	Net Payables		
Australian Dollar	(\$58)	\$101	\$27	\$70
Brazilian Real	(1)	1	-	-
Canadian Dollar	(34)	128	(79)	15
Chilean Peso	-	-	(1)	(1)
Colombian Peso	-	-	(4)	(4)
Czech Koruna	(13)	(30)	-	(43)
Danish Krone	-	8	-	8
Euro Currency	56	(19)	(134)	(97)
Hungarian Forint	(88)	15	-	(73)
Indian Rupee	-	(10)	-	(10)
Japanese Yen	12	256	(295)	(27)
Mexican Peso	(57)	28	(47)	(76)
New Israeli Sheqel	-	(3)	-	(3)
New Zealand Dollar	(255)	282	-	27
Norwegian Krone	(87)	62	-	(25)
Philippine Peso	(7)	(2)	-	(9)
Polish Zloty	(109)	18	-	(91)
Pound Sterling	215	(258)	40	(3)
Singapore Dollar	(62)	19	-	(43)
South African Rand	-	-	(91)	(91)
Swedish Krona	43	(57)	-	(14)
Swiss Franc	(18)	65	-	47
Turkish Lira	(14)	(1)	-	(15)
Yuan Renminbi	19	(10)	-	9
Sub Total	(458)	593	(584)	(449)
US Dollar	21,056	-	(13,382)	7,674
Total	\$20,598	\$593	\$(13,966)	\$7,225

The System has investments in futures contracts. As indicated on the preceding pages, futures variation margin accounts are settled each trading day and recognized as realized gains/(losses) as they are incurred. As a result, the foreign futures contracts have no fair value at June 30, 2016 and 2015.

#### NOTES TO THE BASIC FINANCIAL STATEMENTS (CONTINUED)

(Dollar Amounts Expressed in Thousands)

#### **NOTE 4 – PENSION LIABILITY AND SIGNIFICANT ASSUMPTIONS**

The employers' net pension liabilities (i.e. the total pension liability determined in accordance with GASB Statement No. 67 less the System's fiduciary net position) as of June 30, 2016 and 2015, are shown below:

				(4)
				Fiduciary Net
	(1)		(3)	Position as a %
	Total	(2)	Net Pension	of Total Pension
	Pension	Fiduciary	Liability	Liability
Year Ending June 30	Liability	Net Position	(1) - (2)	(2)/(1)
2016	\$9,436,090	\$7,680,865	\$1,755,225	81.4%
2015	9,028,679	7,878,814	1,149,865	87.3

The actuarial valuation of the System involve estimates of the amounts reported and assumptions about the probability of occurrence of events far into the future. Some examples include future salary increases and future employee mortality. The net pension liability is subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. Triennially, the System requests that its actuary, Segal Consulting, perform an analysis of the appropriateness of all economic and non-economic assumptions. The most recent triennial analysis was performed as of June 30, 2013, and as a result of that analysis, the Board of Retirement approved certain changes to the actuarial assumptions, which were incorporated in the actuarial valuations as of June 30, 2016 and 2015.

#### Disclosure of Information about Actuarial Methods and Assumptions

The required Schedule of Changes in Net Pension Liability immediately following the Notes to the Financial Statements presents multi-year trend information about whether the employers' net pension liability is increasing or decreasing over time.

The projection of benefits for financial reporting purposes does not explicitly incorporate the potential effects of legal or contractual funding limitations.

#### **Actuarial Methods and Assumptions:**

The following significant actuarial assumptions were used to measure the total pension liabilities as of June 30, 2016 and 2015:

Discount Rate: 7.50%
Inflation rate: 3.25%
Real across-the-board salary increase: 0.25%

Miscellaneous projected salary increases\*: 4.50% to 8.50% Safety projected salary increases\*: 5.25% to 11.50%

Assumed post-retirement benefit increase: Miscellaneous Tier 1 3.25%

Miscellaneous Tier 2 0.00% Miscellaneous Tier 3 2.00% Miscellaneous Tier 4 2.00% Miscellaneous Tier 5 2.00% Safety Tier 1 3.25% Safety Tier 2 2.00% Safety Tier 3 2.00% Safety Tier 4 2.00%

Post-Retirement Mortality:

a) Service For Miscellaneous Members and Beneficiaries -

RP-2000 Combined Healthy Mortality Table projected

with Scale BB to 2022

For Safety Members - RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2022 set back one year for males and set forward two years for

females

b) Disability For Miscellaneous Members - RP-2000 Disabled Retiree

Mortality Table projected with Scale BB to 2022 with no age adjustment for males and set forward three years

for females

For Safety Members - RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2022 set

forward two years

c) Employee Contribution Rate For Miscellaneous Members - RP-2000 Combined Healthy

Mortality Table projected with Scale BB to 2022 weighted

40% male and 60% female

For Safety Members - RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2022 set back one year for males and set forward two years for females weighted 70% male and 30% female

Pre-Retirement Mortality: Based upon the June 30, 2013 Actuarial Experience Study

Other Assumptions: Analysis of actuarial experience study for the period

July 1, 2010 through June 30, 2013

<sup>\*</sup>Includes inflation at 3.25% plus real across-the-board salary increase of 0.25% plus merit and longevity increases.

#### Notes to the Basic Financial Statements (Continued)

(Dollar Amounts Expressed in Thousands)

#### **Assumed Asset Allocation**

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These 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 and by adding expected inflation. The target allocation and projected arithmetic real rates of return for each major asset class, used in the derivation of the long-term expected investment rate of return assumption as of June 30, 2016 and 2015 are summarized in the table below:

	Target	Real Rate of	Long-Term Expected
Asset Class	Allocation	Return	Portfolio Rate of Return
Domestic Equities	22.5%	6.83%	5.98%
International Equities	22.5	8.38	7.23
Fixed Income	20.0	1.24	1.25
Absolute Return	10.0	3.20	3.20
Private Equity	10.0	12.82	12.82
Real Assets	15.0	6.17	5.64
Opportunities	0.0	0.00	0.00
Total Portfolio	100.0%	6.19%	5.67%
Inflation			3.25
Investment expense adju	ustment		(0.40)
Risk adjustment		-	(1.02)
Total Long-Term Expected R	ate of Return	-	7.50%

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

The discount rate used to measure the total pension liability was 7.50% as of June 30, 2016 and 2015. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made based on the current contribution rate and that employer contributions will be made at the end of each pay period based on the actuarially determined contribution rates. For this purpose, only the employer contributions that are intended to fund benefits for current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service cost for future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included.

Based on those assumptions, the System's fiduciary net position was projected to be available to make all the projected future benefit payments for current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

In accordance with GASB No. 67 regarding the disclosure of the sensitivity of the net pension liability to changes in the discount rate, the table below presents the employers' net pension liabilities as of June 30, 2016 and 2015, calculated using the discount rate of 7.50%, as well as what the employers' net pension liability would be if it were calculated using a discount rate that is 1.00% lower (6.50%) or 1.00% higher (8.50%) than the current rate.

	1% Decrease	Current Discount Rate	1% Increase
	6.50%	7.50%	8.50%
Net pension liability as of June 30, 2016	\$2,983,885	\$1,755,225	\$737,575
Net pension liability as of June 30, 2015	2,338,210	1,149,865	166,968

#### NOTE 5 - CONTRIBUTIONS REQUIRED AND CONTRIBUTIONS MADE

Contributions to the plan are made pursuant to Section 31584 of the County Employees Retirement Law of 1937. The System's funding policy provides for periodic contributions at actuarially-determined rates that, expressed as percentages of annual covered payroll, are sufficient to accumulate adequate assets to pay benefits when due. Members of the System are required to contribute, and such contributions range from 2.36% to 21.12% of annual covered salary for fiscal year 2015-2016 and from 2.55% to 18.17% of annual covered salary for fiscal year 2014-2015 depending on the member's tier, employer, and bargaining unit. Each employer of the System is obligated by state law to make all required contributions to the plan and depending on the participating employer and their employees' tiers, such contribution rates range from 14.87% to 43.65% of covered payroll for fiscal year 2015-2016 and from 17.04% to 42.69% of covered payroll for fiscal year 2014-2015. The required contributions include current service cost and amortization of any unfunded prior service cost as of June 30, 2012 over a period of 23 years from June 30, 2012, amortization of any unfunded service costs resulting in actuarial gains or losses and amortization of any unfunded service costs resulting from changes in actuarial assumptions and methods over a 20-year period, amortization of any unfunded service costs resulting from plan amendments over a 15 year period and amortization of any unfunded service costs resulting from retirement incentive programs over a period of up to 5 years.

Employer contribution rates are determined using the entry age normal cost method based on a level percentage of payroll. The System also uses this actuarial method to amortize the unfunded liability, if applicable. Contributions for the years ended June 30, 2016 and 2015 totaled \$286,514 and \$291,102. Included in this total are employer contributions of \$209,020 and \$222,959 in fiscal years 2015-2016 and 2014-2015, respectively, of which \$190,936 and \$203,965 were made by the County of Sacramento. Member contributions were \$77,494 and \$68,143 in fiscal years 2015-2016 and 2014-2015, respectively. All contributions were made in accordance with actuarially-determined contribution requirements based on the actuarial valuations performed as of June 30, 2014 and 2013.

#### **NOTE 6 – RESERVES**

Member and employer contributions are allocated to various legally required reserve accounts based on actuarial determinations. Descriptions of the purpose for the reserve and designated accounts are provided below.

Employee reserves represent the balance of member contributions. Additions include member contributions and interest earnings. Deductions include refunds of member contributions and transfers to retiree reserves.

Employer reserves represent the balance of employer contributions for future retirement payments to current active members. Additions include contributions from the employer and interest earnings. Deductions include transfers to retiree reserves, lump sum death benefits, and payments under California Government Code Sections 31725.5 and 31725.6 related to alternative employment for members otherwise entitled to disability retirement benefits.

Retiree reserves represent the balance of transfers from employee reserves, employer reserves, and interest earnings, less payments to retired members.

Retiree death benefit reserves represent the balance of funds for lump sum death benefits for retirees. Additions include interest earnings and, if necessary, employer contributions. Deductions include payments to beneficiaries of retired members who are deceased.

Contingency reserve was created to serve as a reserve against deficiencies in future earnings and unexpected expenses.

### NOTES TO THE BASIC FINANCIAL STATEMENTS (CONTINUED)

(Dollar Amounts Expressed in Thousands)

Investment gains and losses are recognized (smoothed) over a seven-year period. Total allocated reserves and designations represents the smoothed actuarial value of assets (the fair value of assets less the unrecognized/deferred gains and losses) and is the sum of the preceding reserves. As of June 30, 2016 and 2015, total allocated reserves were \$8,236,402 and \$7,838,825, respectively.

Market stabilization reserve represents the unrecognized/deferred gains and losses and is the difference between the smoothed actuarial value of assets and the net position restricted for pension benefits at fair value.

A summary of the various reserve accounts, which comprise net position restricted for pension benefits at June 30, 2016 and 2015, is as follows:

# NET POSITION RESTRICTED FOR PENSION BENEFITS AT FAIR VALUE As of June 30

_	2016	2015
Employee Reserves	\$758,438	\$726,980
Employer Reserves	2,722,084	2,621,588
Retiree Reserves	4,658,694	4,393,327
Retiree Death Benefit Reserves	16,047	15,791
Contingency Reserve	81,139	81,139
Total allocated reserves and designations	8,236,402	7,838,825
Market Stabilization Reserve	(555,537)	39,989
Net position restricted for pension benefits, at fair value	\$7,680,865	\$7,878,814

#### **NOTE 7 - PLAN TERMINATION**

SCERS is administered in accordance with the provisions of the County Employees Retirement Law (CERL) found in the California Government Code at section 31450 et seq. Once adopted by the governing body of a county, there are no provisions in the CERL which permit the governing body of the county to terminate the plan. Section 31564 permits the governing body of a district to withdraw its employees if certain perquisites are met. The governing body of a county or district can adopt optional provisions within the CERL via ordinance or resolution. Once adopted, Section 31483 permits the governing body of a county or district to terminate the applicability of the optional provisions after a future date as specified in a subsequent ordinance or resolution.

#### NOTE 8 - RETIREE MEDICAL AND DENTAL INSURANCE PROGRAM

#### Plan Description

The Sacramento County Retiree Medical and Dental Insurance Program (the "Program") is a multiple-employer medical and dental plan, which is sponsored and administered by the County of Sacramento and financed by three participating employers. SCERS' role in regard to the Program is limited to maintaining data provided by the administrator, collecting monies from the eleven participating employers and remitting premium payments. The activities of the Program are accounted for in the agency fund. SCERS does not provide any funding for the Program.

(Dollar Amounts Expressed in Thousands)

Below is the list of employers participating in the Program as of June 30, 2016:

- County of Sacramento
- · Sacramento Metropolitan Fire District
- Sacramento Employment and Training Agency

The Program provides medical and/or dental subsidy/offset payments to eligible retirees. The Sacramento County Board of Supervisors, at its own discretion, sets the amount of subsidy/offset payment available to eligible County retirees on a year-to-year basis. The medical subsidy amounts for special districts' retirees are varied and are established by each of the member districts. As of June 30, 2016, there were 246 annuitants receiving medical subsidy and 237 annuitants receiving dental subsidy. As of June 30, 2015, there were 228 annuitants receiving medical subsidy and 219 annuitants receiving dental subsidy.

#### **Eligibility**

County annuitants who retired after May 31, 2007 - According to the Program's Administrative Policy, only County annuitants from bargaining units 003, who retired after May 31, 2007, may be eligible for a premium subsidy/offset depending on the annuitant's credited service hours and type of retirement. For calendar years 2016 and 2015, the monthly dental subsidy is \$25, and the monthly medical subsidy amounts range from \$122 to \$244 depending on the annuitant's credited service hours.

<u>Special Districts' annuitants</u> - The medical subsidy amounts for special districts' annuitants are varied and are established by each of the member districts.

There are no vested benefits associated with the Program. The Program does not create any contractual, regulatory, or other vested entitlement to present or future retirees, their spouses, or dependents for medical and/or dental benefits, or subsidy/offset payments at any particular level, or at all. Sacramento County and other participating employers may, in their sole discretion, amend or terminate, in whole or in part, the Program by Resolution of the Board of Supervisors.

#### Contributions and Reserves

The System does not have any authority to establish or amend the obligations of the plan members and employers to contribute to the Program. SCERS does not determine the contribution rate or collect the required contributions from employers. SCERS' role in regards to the Program is limited to collecting monies from Sacramento County and paying the premiums when due. Monies received by the System in excess of liabilities to pay premiums are recognized as liabilities payable to the County. There are no net position or legally required reserve accounts for the Program.

In accordance with GASB Statement No. 45, Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions, each participating employer is required to disclose the Program information with regard to funding policy, the employer's annual OPEB cost and contributions made, the funded status and funding progress, and actuarial methods and assumptions used.

#### Request for Information

Requests for additional financial information regarding the Program may be addressed to:

County of Sacramento, Department of Finance Auditor-Controller Division 700 H Street, Room 3650 Sacramento, CA 95814

#### Notes to the Basic Financial Statements (Continued)

(Dollar Amounts Expressed in Thousands)

#### NOTE 9 – MORTGAGES PAYABLE

The System has real estate investments secured by long-term mortgage obligations which are not recourse loans against the System's assets. Activities related to such mortgages were as follows for the years ended June 30:

	2016	2015
Beginning Balance	\$111,350	\$143,432
Additions	-	11,000
Deductions	(47,850)	(43,082)
Ending Balance	\$63,500	\$111,350

Future debt service requirements for outstanding mortgages are as follows:

#### Year Ending

June 30	Interest	Principal	Total
2017	\$2,293	\$-	\$2,293
2018	2,293	-	2,293
2019	1,746	13,500	15,246
2020	1,746	-	1,746
2021	930	39,000	39,930
2022	289	11,000	11,289
Total	\$9,297	\$63,500	\$72,797

#### **NOTE 10 – LEASE OBLIGATIONS**

SCERS has commitments under operating lease agreements for office facilities and equipment. Minimum future rental payments as of June 30, 2016 were as follows:

#### Year Ending June 30:

2017	\$573
2018	581
2019	589
2020	597
2021	505
Total	\$2,845

Rental costs during the years ended June 30, 2016 and 2015 were \$593 and \$553, respectively.

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## REQUIRED SUPPLEMENTARY INFORMATION

# SCHEDULE 1: SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

For the Fiscal Years Ended June 30 (Dollar Amounts Expressed In Thousands)

_	2016	2015	2014	2013
Total pension liability*				
Service cost	\$186,438	\$185,428	\$192,701	\$187,329
Interest	675,920	643,427	617,240	589,783
Changes of benefit terms Differences between expected and actual experience	- (49,245)	- (6,447)	(108,155)	- (80,788)
Changes of assumptions Benefit payments, including refunds of employee contributions	- (405,702)	- (374,657)	15,781 (347,619)	(323,567)
Net change in total pension liability	407,411	447,751	369,948	372,757
Total pension liability - beginning  Total pension liability - ending (a)	9,028,679 \$9,436,090	8,580,928 \$9,028,679	8,210,980 \$8,580,928	7,838,223 \$8,210,980
Plan fiduciary net position				
Contributions - employee	\$77,494	\$68,143	\$57,635	\$68,242
Contributions - employer	207,884	221,823	209,367	188,529
Contributions - withdrawn employer	1,136	1,136	1,136	1,135
Net investment income/(loss)	(72,399)	158,222	1,107,152	785,449
Benefit payments	(403,356)	(372,369)	(344,890)	(320,828)
Refunds of contributions	(2,346)	(2,288)	(2,729)	(2,739)
Administrative expenses	(6,362)	(5,854)	(5,665)	(5,719)
Net change in plan fiduciary net position	(197,949)	68,813	1,022,006	714,069
Plan fiduciary net position - beginning	7,878,814	7,810,001	6,787,995	6,073,926
Plan fiduciary net position - ending (b)	\$7,680,865	\$7,878,814	\$7,810,001	\$6,787,995
Net pension liability - ending (a-b)	\$1,755,225	\$1,149,865	\$770,927	\$1,422,985
Plan fiduciary net position as a percentage of the total pension liability	81.4%	87.3%	91.0%	82.7%
Covered payroll	\$912,421	\$873,328	\$858,343	\$858,551
Net pension liability as a percentage of covered payroll	192.4%	131.7%	89.8%	165.7%

<sup>\*</sup> The pension liability is not available for years prior to June 30, 2013. Information will be presented in future years as it becomes available.

### SCHEDULE 2: SCHEDULE OF EMPLOYER CONTRIBUTIONS

For the Last Ten Fiscal Years Ended June 30 (Dollar Amounts Expressed In Thousands)

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Actuarially determined contribution (ADC)	\$207,884	\$221,823	\$209,367	\$188,529	\$179,099	\$182,921	\$167,142	\$177,011	\$167,055	\$156,805
Contributions in relation to the ADC Contribution deficiency (excess)	207,884	221,823 \$-	209,367	188,529	179,099	182,921	167,142	177,011	167,055	156,805
Covered payroll*	\$912,421	\$873,328	\$858,343	\$858,551	\$835,737	\$818,804	\$872,804	\$923,375	\$851,016	\$798,800
Contributions in relation to the ADC as a percentage of covered payroll	22.8%	25.4%	24.4%	22.0%	21.4%	22.3%	19.2%	19.2%	19.6%	19.6%

<sup>\*</sup>Payroll for the years ending 2007 through 2012 are calculated by dividing the contribution dollar amount by the aggregated contribution rate.

## SCHEDULE 3: SCHEDULE OF ANNUAL MONEY-WEIGHTED RATE OF RETURN

For the Fiscal Year Ended June 30

	2016	2015	2014
Annual money-weighted rate of return, net of investment expenses*	(0.97%)	2.01%	16.18%

<sup>\*</sup> Information prior to June 30, 2014 is not available.



The schedules presented in the Required Supplementary Information provide information to help promote an understanding of the employers' net pension liability over time on a market value of assets basis. The Schedule of Changes in Net Pension Liability and Related Ratios includes historical trend information about the System's total pension liability and the progress made in accumulating sufficient assets to pay benefits when due. The Schedule of Employer Contributions presents historical trend information about the actuarially determined contribution and the actual contributions made. The Schedule of Annual Money-Weighed Rate of Return presents investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested.

#### **CHANGE OF ASSUMPTIONS**

Triennially, the System requests that its actuary perform an analysis of the appropriateness of all economic and non-economic assumptions. The most recent triennial analysis was performed as of June 30, 2013. As a result of that analysis, the Board of Retirement approved the following changes to the actuarial assumptions, which were first incorporated in the June 30, 2014 valuation:

- The retirement rates were adjusted to reflect slightly later retirements.
- The mortality rates were adjusted to reflect a slight mortality improvement.
- Termination rates were adjusted to reflect lower incidence of termination, with a higher proportion electing to receive a deferred vested benefit.
- Years of service instead of age was used in determining and applying the merit and promotional rates of salary increase.

# METHODS AND ASSUMPTIONS USED TO ESTABLISH ACTUARIALLY DETERMINED CONTRIBUTION RATES

The following actuarial methods and assumptions were used to determine contribution rates reported in the Schedule of Employer Contributions:

Actuarial cost method:

Amortization method:

Valuation date:

Remaining amortization period:

Asset valuation method:

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

Entry Age Cost Method

Level percent of payroll (3.50% payroll growth assumed) 22 years (declining) as of June 30, 2013 for the outstanding balance of the June 30, 2012 UAAL. The UAAL established as a result of the Early Retirement Incentive Program for Law Enforcement Managers Association members is amortized over a 10-year period, beginning June 30, 2010. Effective June 30, 2013 any changes in UAAL due to actuarial gains or losses or due to changes in actuarial assumptions or methods will be amortized over a 20-year closed period effective with each valuation. Any change in UAAL that arises due to plan amendments will be amortized over its own declining 15-year period and any change in UAAL due to retirement incentive programs will be amortized over a declining period of up to 5 years. The market value of assets less unrecognized returns in each of the last six years. Unrecognized return is equal to the difference between actual and expected returns on a market value basis and is recognized over a rolling sevenyear period. The deferred return is further adjusted, if neccessary, so that the actuarial value of assets will stay

within 30% of the market value of assets.

Actuarial assumptions:

Investment rate of return: 7.50%, net of pension plan investment expense, including

inflation

Inflation rate: 3.25%

Projected salary increases: 3.50% - 11.30% varying by service, including inflation

Assumed post-retirement benefit increase:

Miscellaneous Tier 1 3.25% Miscellaneous Tier 2 0.00% Miscellaneous Tier 3 2.00% Miscellaneous Tier 4 2.00% Miscellaneous Tier 5 2.00% Safety Tier 1 3.25% Safety Tier 2 2.00% Safety Tier 3 2.00% Safety Tier 4 2.00%

Other assumptions: Same as those used in June 30, 2013 funding actuarial

valuation.

Other information: All members with membership dates on or after

January 1, 2013 enter the new tiers created by the California Public Employees' Pention Reform Act of 2013

(PEPRA).

#### **Changes in Methods and Assumptions Used**

Valuation date as of June 30:

- 2005 Inflation assumption decreased from 4.00% to 3.50%.
- 2006 Employee contribution crediting rate is equal to 5-year Treasury rate, assuming sufficient net earnings.
- 2007 Investment return assumption increased from 7.75% to 7.875%.
  - Salary increase assumption increased from 5.45% to 5.65%.
- 2010 Investment return assumption decreased from 7.875% to 7.75%.
- 2011 Modification in non-economic assumptions.
- 2012 Investment return assumption decreased from 7.75% to 7.50%;
  - Inflation assumption decreased from 3.50% to 3.25%;
  - Salary increase assumption decreased from 5.65% to 5.40%;
  - COLA increase assumption for Tier 1 decrease from 3.40% to 3.25%.
- 2013 Actuarial cost method changed from Aggregate Entry Age Normal Cost Method to Individual Entry Age Normal Cost Method.
  - Changes to the amortization periods used for various future changes in liability:
    - UAAL established as a result of Early Retirement Incentive Program for Sacramanto County Law Enforcement Managers Association (LEMA) is amortized over a 10-year period beginning June 30, 2010;
    - UAAL as a result of actuarial gains or losses as of June 30 will be amortized over a 20year period;
    - UAAL as a result of changes in actuarial assumptions or methods to be amortized over a 20-year period;
    - Change in UAAL as a result of plan amendments to be amortized over a 15-year period;
    - UAAL as a result from retirement incentive programs will be amortized over a period up to 5 years.

## OTHER SUPPLEMENTAL INFORMATION

# FOR THE FISCAL YEARS ENDED JUNE 30 (Dollar Amounts Expressed in Thousands)

## <u>Schedule I - Schedule of administrative expenses:</u>

Type of expense:	2016	2015
Salaries and benefits	\$3,506	\$3,445
Professional fees	1,081	811
Rent and lease expense	501	456
Depreciation expense	34	36
Equipment purchases and maintenance	26	32
Other administrative expenses	1,214	1,074
Total administrative expenses	\$6,362	\$5,854
Schedule II - Schedule of investment fees and expenses:		
Type of investment expense:	2016	2015
Domestic equity managers	\$6,006	\$6,401
International equity managers	6,788	7,702
Absolute return managers	9,255	10,091
Private equity managers	10,783	11,050
Fixed income managers	3,613	3,691
Real asset managers	13,819	14,711
Opportunity portfolio managers	4,122	2,602
Strategic cash overlay managers	596	648
Custodian fees	476	510
Investment consulting fees	972	950
Other investment expenses and fees	2,948	3,082
Total investment fees and expenses	\$59,378	\$61,438
Schedule III - Schedule of payments to consultants:		
Type of service:	2016	2015
Legal services	\$1,543	\$1,538
Medical consulting services	500	356
Actuarial services	179	163
Information Technology services	152	-
Audit and consulting services	89	71
Total payments to consultants	\$2,463	\$2,128

## STATEMENTS OF CHANGES IN ASSETS AND LIABILITIES

### AGENCY FUND

### FOR THE FISCAL YEARS ENDED JUNE 30, 2016 AND 2015

(Dollar Amounts Expressed in Thousands)

Assets		2016	2015
Beg	inning accounts receivable balance	\$31	\$41
Add	itions	26,545	26,251
Ded	uctions	(26,529)	(26,261)
End	ing accounts receivable balance	\$47	\$31
Liabilities			
Beg	inning accounts payable balance	\$31	\$41
Add	itions	26,545	26,251
Ded	uctions	(26,529)	(26,261)
End	ing accounts payable balance	\$47	\$31





## CHIEF INVESTMENT OFFICER'S REPORT

#### Introduction

For the fiscal year ended June 30, 2016, the Sacramento County Employees' Retirement System ("SCERS") achieved a (0.6%) gross return. The muted absolute returns were the result of negative returns within several asset classes, including the International Equity and Absolute Return segments. SCERS' gross return fell short of its policy index return of 1.5% by 2.1%, due to poor relative performance within the Domestic Equity, Absolute Return and Real Assets asset classes compared to their respective benchmarks. While SCERS has experienced a strong recovery in its asset base since the depths of the Global Financial Crisis ("GFC"), over the past few years, this recovery has moderated, demonstrated by the near flat returns over the past fiscal year. Assets under management ended the current fiscal year at \$7.7 billion, which is near its historical peak level, but off of last year's fiscal year ending level of \$7.9 billion.

SCERS' general investment consultant, Verus Advisory ("Verus"), prepared the investment returns cited in this transmittal using information they received from SCERS' custodian bank and investment managers.

#### **Market Overview**

The global financial markets generated mixed results during the 2015-2016 fiscal year, with bond markets outperforming equities, and with pockets of increased volatility. Within equities, domestic and international equities produced divergent returns, with the former significantly outperforming the latter. Domestic equities generated slightly positive returns in aggregate, while international equity markets, including emerging markets, produced significant negative returns. Similar to the prior year, the global markets have lost further momentum from the accommodative monetary policy driven rally that has fueled markets since the GFC in 2008.

Benchmark returns across SCERS' asset and sub asset classes were as follows: Domestic equity markets (Russell 3000 Index) returned 2.1%; International developed equity markets (MSCI EAFE Index) returned (9.7%); Emerging equity markets (MSCI Emerging Markets Index) returned (12.1%); Fixed income markets (custom benchmark comprised 75% Barclays Aggregate Index / 12% Citigroup WGBI Index / 5% BofA Merrill Lynch US HY Master II Index / 5% Credit Suisse Leveraged Loans Index / 3% JP Morgan GBI EM Diversified Index) returned 6.0%; Real estate markets (NFI-ODCE Index) returned 11.8%; Absolute return markets (HFRI Fund of Funds Composite Index) returned (5.4%); and Commodities markets (Bloomberg Commodity Index) returned (13.3%).

During the year, quality stocks with high dividend and earnings yields, such as those in the utilities, telecom and consumer staples sectors outperformed, while growth, momentum and deep value stocks lagged. The majority of active investment managers allocate to the types of stocks that performed poorly, in particular within the hedge fund/absolute return universe, which was one of the poorer performing segments of the market. Credit markets experienced volatility in an environment where lower quality issues underperformed for much of the earlier parts of the year. Commodity markets experienced further distress during the earlier stages of the fiscal year, including a widening supply and demand imbalance in the oil markets. Oil prices dropped to a level below \$30 per barrel, but rallied in the first half of calendar year 2016 to close the fiscal year at \$44 per barrel.

Coordinated global monetary policy continued to diverge during the fiscal year. In the U.S., the Federal Reserve ("Fed"), which ended its quantitative easing ("QE") program during the fourth quarter of 2014, introduced an interest rate hike in late 2015, nine years since its last interest rate hike prior to the GFC. However, with an increase in volatility within financial markets in early 2016 and soft economic numbers, the Fed scaled back its expectations for further interest rate hikes until there was demonstrated improvement in the labor market and increasing signs of inflation. The situation in the U.S. contrasted that of other global developed nation monetary policies where in Europe and Japan, the European Central Bank and the Bank of Japan introduced further rounds of monetary easing measures during the year. These included

subsequent purchases of government bonds and reductions in interest rates which moved the latter into negative interest rate territory. China was also active introducing monetary and fiscal policy measures during the year, in order to smooth its pace of economic growth and ease its transition toward a consumption based economy. Some of the biggest news came out of Great Britain at the end of the fiscal year, where on June 23, 2016, the UK surprisingly voted to leave the European Union. The immediate aftermath of the British exit ("Brexit") vote caused global equity markets to temporarily plunge, though they did rebound, and the British Pound Sterling to drop to 30 year lows against the U.S. dollar.

With the multi-year post-GFC rise in asset prices across most markets in a monetary policy-fueled low interest rate environment, valuations in many market segments remain high. This has made it more challenging to find attractive opportunities in many parts of the market, highlighting the importance of maintaining investment discipline, while seeking those opportunities which offer better relative value. Looking ahead, with global growth rates expected to continue to be below long-term averages, lower forward capital market assumptions within many segments of the market, global monetary policy measures expected to have diminishing impact, and the introduction of a new U.S. President, there could be higher levels of volatility and a broader range of outcomes within the financial markets. This environment continues to call for a portfolio with sufficient levels of diversification, and a balance of portfolio exposures across multiple economic environments and risk factors.

#### **Asset Allocation**

SCERS' investment program is structured around a strategic asset allocation model established by the Board with the assistance of SCERS' investment staff, general investment consultant Verus, alternative assets consultant Cliffwater LLC ("Cliffwater"), and real estate consultant The Townsend Group ("Townsend"). The objective of the asset allocation model is to ensure the diversification of investments in a manner that achieves the desired rate of investment return with an acceptable level of investment risk. To achieve this, the asset allocation is broadly diversified between asset classes and within asset classes to provide consistent long-term performance. The asset allocation targets are not tactical, but rather, are long-term in nature, consistent with the long-term nature of SCERS' benefit obligations. The asset allocation model is typically reviewed every three to five years, but the long-term capital market assumptions for the various asset classes and sub-asset classes are reviewed and adjusted as appropriate each year. Research has shown that the asset allocation mix is the largest driver of investment performance.

SCERS' current asset allocation model was established pursuant to an asset allocation study, with a focus on reducing risk by increasing diversification for SCERS' portfolio, and in particular, creating an asset allocation structure that performs well across different economic environments and risk factors (such as the equity risk premium, interest rates, credit, inflation and currencies). SCERS' portfolio, similar to most institutional investment portfolios, is weighted toward assets that tend to perform better in a growth oriented environment, given its higher allocation to equity-like assets, and is more susceptible to losing capital during recessionary periods when growth is contracting. Increased diversification is intended to make SCERS' portfolio more of an 'all weather' portfolio that can perform well on a relative basis across a variety of market environments, and lose less capital during market downturns. Another objective in the asset allocation structure is to establish clearly defined roles and objectives for each asset class to avoid duplication in sources of return and risk caused by the overlap between asset classes. While the target allocations to the major asset classes are long-term in nature, the asset allocation was designed to provide flexibility within the structure of the major asset classes to allocate capital to investment opportunities that present better relative value and the most attractive risk adjusted return characteristics.

#### CHIEF INVESTMENT OFFICER'S REPORT (CONTINUED)

SCERS' current asset allocation model is presented in the table below.

Asset Class	Target Allocation
Equities	
Domestic Equities	22.5%
International Equities	22.5%
Equities Total	45.0%
Fixed Income	20.0%
Private Equity	10.0%
Real Assets	
Core Private Real Estate	7.0%
Commodities	2.0%
TIPs, ILBs	0.0%
Private Real Assets	6.0%
Real Assets Total	15.0%
Absolute Return	10.0%
Opportunities	0.0%

SCERS has been actively implementing the current asset allocation over the past several years; however, this is a multi-year process to fully execute, especially within the Private Equity and Real Asset classes, given the unique cash flow characteristics of these segments and the importance of maintaining vintage year diversification. It is anticipated that it will require a few more years to reach the target allocation levels in the aforementioned asset classes. Nevertheless, since it has been five years since SCERS' last asset allocation study, during this past fiscal year, SCERS embarked on a new asset allocation study.

The last asset allocation study introduced significant changes to SCERS' strategic asset allocation at the asset class level, and also in the structuring of individual asset classes, so it is expected that the current asset allocation study will build upon the prior one, especially as it relates to reducing risk by increasing diversification, but with a greater focus on protecting capital during market downturns. This could translate toward viewing SCERS' asset allocation through functional and outcome based risk lenses rather than through conventional lenses, to better identify hidden risks within the portfolio. This approach entails regrouping and re-classifying portions of the portfolio, by linking those segments that are exposed to similar economic environments and risk factors, and by better identifying the roles they are expected to play within SCERS' portfolio.

#### **Investment Portfolio Implementation**

In addition to providing assistance to the Board in establishing the asset allocation model, SCERS' investment staff and consultants assist in developing investment policy statements; conduct searches for and recommend the selection of investment managers; monitor investment manager performance and compliance; advise on developments in the investment markets; and analyze and develop recommendations for possible tactical adjustments and new investment initiatives.

SCERS utilizes external investment managers to invest the System's assets. As of June 30, 2016, SCERS' assets were invested across: (1) Domestic Equity - nine separate account portfolios and one commingled fund; (2) International Equity - four separate account portfolios and five commingled fund partnerships; (3) Fixed Income - four separate account portfolios and one global opportunistic fixed income fund; (4)

Absolute Return - nine fund partnerships and two separate account portfolios; (5) Private Equity - four fundof-funds partnerships and thirty five fund partnerships; (6) Real Assets – four separate account portfolios, seven core real estate funds, ten private real assets fund partnerships, two commodity fund partnerships, and a real assets strategy commingled fund; (7) Opportunities - two opportunistic credit fund partnerships, five value-added real estate fund partnerships and five opportunistic real estate fund partnerships; and (8) A portfolio overlay program.

Portfolio activity during the fiscal year included the following:

- In Domestic Equity, no significant changes were made during the fiscal year.
- In International Equity, SCERS engaged two investment managers to manage an all-cap emerging markets equity mandate, which represented a replacement search for a manager whose engagement was terminated in fiscal year 2015-2016.
- In Fixed Income, no significant changes were made during the fiscal year.
- In Absolute Return, an engagement with a direct absolute return fund was terminated. The proceeds
  were placed in an existing diversified separate account, until a replacement search is completed in
  fiscal year 2016-2017.
- In Private Equity, SCERS continued implementation of the direct private equity investment platform, making seven fund commitments during the fiscal year. SCERS also approved the annual report and annual investment plan for the Private Equity asset class during the fiscal year.
- In Real Assets, within the real estate portfolio, SCERS conducted some re-balancing in the core real
  estate sub-asset class by disposing of three assets in the separate account portfolios, and investing in
  one core open-end real estate fund and one international value-added closed-end real estate fund. In
  the private real assets sub-asset class, SCERS continued to build its portfolio by making four private
  real assets fund commitments during the fiscal year. In addition, SCERS approved the annual report
  and annual investment plan for the Real Assets asset class during the fiscal year.
- In the Opportunities asset class, SCERS made one fund commitment, which was referenced in the Real Assets discussion above, with the allocation drawn from the Real Assets asset class.

As previously noted, due to the longer investment period for private market commitments, the importance of maintaining vintage year diversification, and only investing with top tier managers, it will take several years for target allocation levels to be reached in the Private Equity and Real Assets asset classes.

SCERS' custodial bank is State Street California, Inc ("State Street"). In addition to asset custody services (including performance measurement), State Street provides securities lending services to SCERS and, through State Street Global Advisors and State Street Global Markets, administers a portfolio overlay program and a brokerage commission recapture program, respectively. The portfolio overlay program assures that SCERS' portfolio remains consistent with the asset allocation model through cost-effective rebalancing, using investment proxies to close gaps relative to target allocation levels and to eliminate 'cash drag'. For the fiscal year ended June 30, 2016, SCERS earned a net income of \$1.9 million from securities lending and received commission recapture income of \$0.06 million.

SCERS' primary legal services regarding the investment program are provided by specialized outside legal counsel and fiduciary counsel.

#### CHIEF INVESTMENT OFFICER'S REPORT (CONTINUED)

During the fiscal year, investment educational sessions were provided to the Board by SCERS' staff, investment consultants and various investment managers to assist the Board in making decisions regarding new asset classes and possible new investment mandates. The educational sessions included presentations regarding: (1) Options and applications for the management of currency exposures; (2) Investing in Timberland; (3) Systematic macro absolute return strategies; and (4) Private equity fund transparency.

#### **SCERS Investment Objectives**

SCERS' investment objectives are set forth in the Board's Investment Policy and Objectives Statement ("Investment Policy") and through customized investment policy statements for each asset class.

At the highest level, SCERS' investment objectives are:

#### Provide for Present and Future Benefit Payments:

The overall investment objective of SCERS is to invest pension assets solely in the interest of providing benefits to the participants and their beneficiaries, while attempting to minimize employer contributions and defray administrative costs. The investment of contributions and other fund assets in accordance with the Investment Policy is intended to accomplish this and maintain adequate funding for SCERS' liabilities over time. The goal of the Board is to design an investment portfolio that will achieve and exceed the annualized actuarial assumed rate of 7.5% over a market cycle. The Board strives to achieve this level of return with a high level of confidence and with an acceptable level of risk.

#### Make Prudent Investments:

In accordance with the fiduciary standards of care, skill, prudence and diligence, the Board strives to produce an investment return based on levels of liquidity and investment risk that are prudent and reasonable under present circumstances, recognizing that those circumstances may change over time.

#### **Diversify the Assets:**

TThe Board diversifies the investments of SCERS to maximize the investment return and maintain an acceptable investment risk.

#### Create Reasonable Pension Investments Relative to Other Pension Funds:

SCERS' investment program must operate in compliance with all applicable State and Federal laws and regulations concerning the investment of pension assets. SCERS assesses its selection of investment vehicles and strategies relative to other private and public pension funds, with special emphasis on comparisons with public funds.

#### Establish Policy and Objective Review Process:

Annually, SCERS conducts a formal review of its Investment Policy and undertakes an updated asset/liability study typically every three to five years.

#### Proxy Voting Guidelines and Procedures

As a fiduciary, the Board has an obligation to manage SCERS' assets in the best interest of the plan participants. The Board has established a Proxy Voting and Corporate Governance Policy to assist with this goal. This policy provides guidance for voting proxies and acting on corporate action issues, such as mergers and acquisitions. For the fiscal year ended June 30, 2016, a majority of proxies were voted through an electronic voting platform provided by Institutional Shareholder Services, with the assistance of research and analysis provided by Institutional Shareholder Services and Glass Lewis & Co.

#### Summary of Investment Results

SCERS monitors capital market investment returns through reference to recognized and easily obtainable market indices, which are used as asset class benchmarks. The benchmark index performance by asset class for one, three and five years is shown on the Investment Results schedule. The asset class benchmark returns are weighted by the asset allocation to provide a policy-weighted return based on SCERS' asset allocation model. SCERS presents its returns using a time-weighted rate of return methodology based upon market values. SCERS' general investment consultant, Verus, prepared the investment returns cited in this section using information it received from SCERS' custodian bank and investment managers.

Relative to recent years, SCERS' investment performance for the fiscal year ended June 30, 2016 was poor, with divergent returns across SCERS' major asset classes. Fixed Income and Private Equity generated the strongest positive absolute returns, while International Equity and Absolute Return generated negative returns. International Equity was impacted by slower growth expectations, both within developed and emerging markets, compared to the United States.

For the period, SCERS' total fund return was (0.6%), gross of investment management fees, and (0.9%), net of investment management fees. The gross return for the fiscal year was 2.1% below SCERS' policy weighted benchmark return of 1.5%, and was well below the actuarial return objective of 7.5%. Over the trailing three-year period, SCERS' annualized investment return was 5.9% gross and 5.6% net. This three-year annualized return was below the actuarial return objective of 7.5% and SCERS' policy benchmark return of 6.6%. Over the trailing five-year period, SCERS' annualized investment return was 6.2% gross and 5.9% net. This five-year annualized return was also below the actuarial return objective of 7.5% and SCERS' policy benchmark return of 6.6%.

SCERS also assesses its investment performance relative to a peer group of other public funds utilizing a series of universe comparisons provided by Verus. For the fiscal year, the median public fund in the InvestorForce Universe of public funds with assets of greater than one billion dollars was 0.2%. SCERS ranked in the 75th percentile.

Domestic Equity returned 1.1% for the fiscal year, gross of fees. The return was below the benchmark Russell 3000 Index return of 2.1%, by 1.0%. For the three-year period, SCERS' Domestic Equity annualized return was 10.4%, gross of fees, compared to the Russell 3000 Index benchmark return of 11.1%. In the domestic equity segment of the InvestorForce Universe, SCERS ranked in the 42<sup>nd</sup> percentile for the fiscal year and in the 55<sup>th</sup> percentile for the three year period.

The Domestic Equity sub-asset allocation divides investments by stock market capitalization and investment style. The large cap domestic equity investments had a fiscal year 0.9% return, gross of fees, which was 2.0% below the return of the Russell 1000 Index benchmark of 2.9%. The annualized investment return for large cap equity for three years was 10.6%, gross of fees, which was below the benchmark return of 11.5%. The one-year return for small cap equity investments was (6.6%), gross of fees. This return was slightly better than the benchmark Russell 2000 Index return of (6.7%). For the three-year period, the small cap equity annualized return was 6.6%, gross of fees, which was 0.5% below the benchmark return of 7.1%.

International Equity returned (8.0%) for the fiscal year, gross of fees. This was 1.8% above the benchmark MSCI ACWI ex-U.S. Index return of (9.8%). Annualized performance for the three-year period of 2.2%, gross of fees, was above the benchmark return of 1.6%. In the international equity segment of the InvestorForce Universe, SCERS ranked in the 34th percentile for the fiscal year and in the 53rd percentile for the three year period.

SCERS' international equity investments are classified into two categories, developed markets and emerging markets, determined by country. For the fiscal year, SCERS' developed market investments returned (7.2%), gross of fees, which was 2.5% above the benchmark MSCI EAFE Index return of (9.7%). Over the trailing three-year period, the developed markets annualized return was 3.2%, gross of fees, compared to the MSCI EAFE Index return of 2.5%. For the fiscal year, the emerging markets gross of fees return of (12.7%) was below the return of the benchmark MSCI Emerging Markets Index return of (11.7%). For the three-year period, SCERS' emerging markets annualized return of (2.1%), gross of fees, came in 0.9% below the benchmark return of (1.2%).

SCERS' Fixed Income investments generated a fiscal year 5.3% return, gross of fees, which was 0.8% below the custom benchmark (comprised of 75% Barclays Aggregate Index / 12% Citigroup WGBI Index / 5% BofA Merrill Lynch US HY Master II Index / 5% Credit Suisse Leveraged Loans Index / 3% JP Morgan GBI EM Diversified Index) return of 6.1%. For the three-year period, the Fixed Income asset class annualized return was 4.1%, gross of fees, compared to the benchmark return of 3.5%. In the fixed income segment of the InvestorForce Universe, SCERS' Fixed Income return ranked in the 34th percentile for the fiscal year and in the 36th percentile for the three-year period.

SCERS' Absolute Return investments generated a fiscal year (4.5%) return, gross of fees. For the three-year period, the Absolute Return asset class annualized return was 2.3%. The performance objective and policy benchmark for the Absolute Return investments is the 91-day T-Bill plus five percent, which returned 5.2% and 5.1% in the fiscal year and three-year periods, respectively. Another comparison measure is the HFRI Fund of Funds Composite Index, which returned (5.4%) and 1.9% for the fiscal year and three-year period, respectively. In the absolute return segment of the InvestorForce Universe, SCERS' Absolute Return performance ranked in the 41st percentile for the fiscal year and in the 54th percentile for the three year period.

The Private Equity asset class generated a return of 2.3%, gross of fees for the fiscal year, compared to the 3.5% return of the asset class benchmark, the Russell 1000 Index plus three percent. For the three-year period, SCERS' Private Equity asset class returned 12.7%, compared to the benchmark return of 14.4%. The underperformance for SCERS' investments reflects the J-curve effect on the private equity fund investments, which are earlier in their investment cycle, with committed capital still being called and invested. Another comparison measure is the Thomson Reuters Private Equity Index, which returned 2.9% and 11.4% for the fiscal year and three-year period, respectively. In the private equity segment of the InvestorForce Universe, SCERS' Private Equity return ranked in the 72<sup>nd</sup> percentile for the fiscal year and in the 27<sup>th</sup> percentile for the three year period. Please note that the returns of the private equity asset class and benchmark are delayed one quarter.

The Real Assets asset class generated a fiscal year 3.9% return, gross of fees, which was 2.1% below the benchmark CPI-U Headline Inflation Index + 5% return of 6.0%. For the three-year period, the Real Assets asset class annualized return was 7.9%, compared to the benchmark return of 5.7%. The Real Assets return does not include the SSGA Real Assets Strategy, which is the proxy used within SCERS' Overlay Program to replicate exposure while the asset class is built out, especially within the private real assets segment. Including the SSGA Real Assets Strategy, the returns for Real Assets, gross of fees for the fiscal year and three-year periods were 1.2% and 4.3%, respectively.

The Real Assets sub-asset allocation divides investments into four categories, including: (1) Core and core plus real estate; (2) Private real assets such as infrastructure, energy, timber, agriculture or other natural resources; (3) Commodities; and (4) Treasury Inflation Protected Securities (TIPS). SCERS' core real

estate separate accounts produced a 3.9% return, gross of fees, which was 7.9% below the benchmark return of 11.8%. SCERS' core open-ended real estate funds achieved a 10.7% gross return compared to the benchmark return of 11.8%. SCERS' commodities funds returned (14.9%), which was 1.6% below the benchmark return of (13.3%). The poor commodities performance was heavily influenced by the sharp sell-off in energy prices during the first half of the fiscal year. During the fiscal year, SCERS did not have any allocations to TIPS, and the performance of the private real assets segment is not yet meaningful due to SCERS being earlier in the J-curve.

The Opportunities investments are tactical investments across SCERS' investible asset classes and universe. When an Opportunities investment is made, its capital is drawn from the asset class which best fits the risk and return characteristics of the underlying investments. For the fiscal year, SCERS' Opportunities investments collectively achieved a 15.3% gross return, which was 13.8% above SCERS' policy index 1.5% benchmark return.

Additional information regarding SCERS' investment program can be found on the pages immediately following this Report.

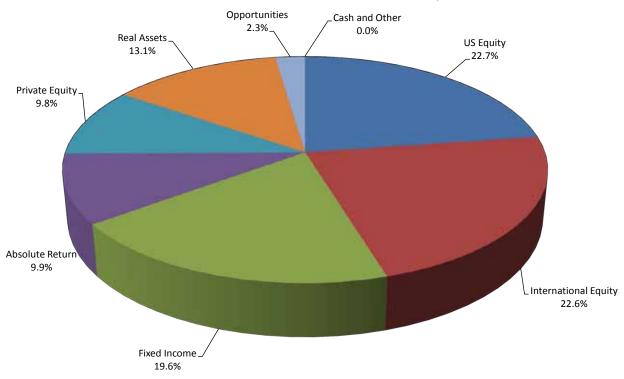
Respectfully submitted,

Steve Davis

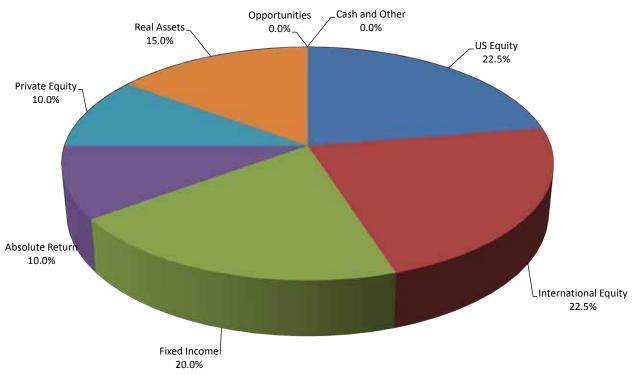
Chief Investment Officer

## ASSET ALLOCATION

### SCERS' Actual Asset Allocation as of June 30, 2016



#### **Target Asset Allocation**



The 2016 Actual Asset Allocation is based upon the Investment Summary net of \$63.5 million in real asset investment leverage.

## INVESTMENT RESULTS

	For the Period Ended June 30, 2016		
	Annualized		
	1 Year	3 Years	5 Years
Domestic Equity			
Total Domestic Equity	1.1 %	10.4%	10.9%
InvestorForce All DB US Eq Gross Median	0.5	10.5	10.9
Benchmark: Russell 3000 Index	2.1	11.1	11.6
International Equity			
Total International Equity	(8.0)	2.2	1.1
InvestorForce All DB ex-US Eq Gross Median	(9.1)	2.2	1.5
Benchmark: MSCI ACWI ex-US Index	(9.8)	1.6	0.6
Absolute Return			
Total Absolute Return	(4.5)	2.3	3.2
InvestorForce All DB Hedge Funds Gross Median	(5.0)	2.5	3.2
Benchmark: 91 day Treasury Bill + 5%	5.2	5.1	5.1
HFRI Fund of Funds Composite Index	(5.4)	1.9	1.6
Private Equity			
Total Private Equity*	2.3	12.7	10.5
InvestorForce All DB Private Eq Net Median	4.5	10.4	9.2
Benchmark: Russell 1000 + 3% 1 Quarter Lag	3.5	14.4	14.3
Thomson Reuters C/A All PE 1 Quarter Lag	2.9	11.4	11.4
Fixed Income			
Total Fixed Income	5.3	4.1	4.2
InvestorForce All DB Total Fix Inc Gross Median	4.6	3.6	4.1
Benchmark: Custom**	6.1	3.5	3.4
Real Assets	1.2	4.2	2.7
Total Real Assets		4.3	
Benchmark: CPI-U Headline + 5%	6.0	5.7	N/A
Opportunities Total Opportunities	15.3	16.5	15.6
• •	1.5	6.6	8.5
Benchmark: Policy Index	1.5	0.0	8.5
Total Fund	(0.6)	5.0	6.3
SCERS Total Fund - Gross	(0.6)	5.9	6.2
SCERS Total Fund - Net	(0.9)	5.6	5.9
InvestorForce Public DB > \$1B Gross Median	0.2	6.6	6.5
Benchmark: Policy Index***	1.5 %	6.6%	6.6%

Notes: Unless noted, returns were prepared by Verus Advisory, Inc., and shown on a gross of fee basis (except for absolute return, private equity, opportunities, and private real assets) and included the overlay effect. Return calculations were prepared using a time weighted rate of return.

<sup>\*</sup> Investment return and index return are one quarter in arrears.

<sup>\*\*</sup>The fixed income benchmark consists of 75% Barclays Aggregate, 12% Citigroup WGBI ex US Unhedged, 5% BofA ML High Yield II, 5% Credit Suisse Leveraged Loans and 3% JPMorgan GBI EM Diversified.

<sup>\*\*\*</sup>The benchmark consists of 22.5% MSCI ACWI ex US, 22.5% Russell 3000, 15% Barclays Aggregate, 15% CPI-U +5% (RA), 10% 91-day UST Bill +5% (HF), 10% Russell 1000 +3% 1QL (PE), 2.4% Citigroup WGBI ex US Unhedged, 1% BofA ML High Yield II, 1% Credit Suisse Leveraged Loans and 0.6% JPM GBI EM Diversified. From 1/1/2012 to 12/31/2013, the Benchmark consisted of 22.5% MSCI ACWI ex US, 10% Russell 1000 +3% 1QL (PE), 22.5% Russell 3000, 20% Barclays Aggregate, 15% CPI-U +5% (RA), and 10% 91-day UST Bill +5% (HF).

## SUMMARY OF INVESTMENT ASSETS

# As of June 30, 2016 (Dollar Amounts Expressed in Thousands)

Equity	Fair Value	Percentage of Total Cash & Investments
Domestic Equity		
AllianceBernstein L.P Large Cap Core Index	\$1,088,944	14.10%
Brown Advisory - Large Cap Growth	113,580	1.47
CenterSquare Investment Management - U.S. REITs	121,371	1.57
Dalton, Greiner, Hartman, Maher & Co. LLC - Small Cap Value	66,114	0.86
Eagle Capital Management - Large Cap Core	247,599	3.21
Huber Capital Management - Large Cap Value	106,571	1.38
JP Morgan Asset Management - Equity Active Extension (130/30)	118,541	1.53
UBS Global Asset Management - US Small Cap Growth	53,585	0.69
Weatherbie Capital, LLC - Small Cap Growth	68,523	0.89
Wedge Capital Management - Small Cap Value	72,933	0.94
Transition Account	187	0.00
Total Domestic Equity	2,057,948	
International Equity	121 210	4.57
Baillie Gifford & Co Emerging Market All Cap	121,218	1.57
CBRE Clarion Securities - International REITS	77,342	1.00
Lazard Asset Management - ACWI ex-US	396,226	5.13
LSV Asset Management - International Developed Value	391,666	5.07
Mondrian Emerging Markets Equity Fund, L.P.	124,570	1.61
Mondrian Emerging Markets Small Cap Equity Fund, L.P.	23,761	0.31
Mondrian International Small Cap Equity Fund, L.P.	85,334	1.10
William Blair Emerging Markets Small Cap Growth	25,007	0.32
William Blair International Small Cap Growth Portfolio	100,024	1.30
Total International Equity	1,345,148	
Total Equity	3,404,096	
Absolute Return		
AQR Delta Fund II, L.P.	47,122	0.61
Brevan Howard, L.P.	34,424	0.45
Claren Road Credit Partners, L.P.	8,126	0.11
Elliott International Limited	44,265	0.57
Grosvenor Capital Management	293	0.00
Jana Partners Qualified, L.P.	35,301	0.46
Lakewood Capital Partners, L.P.	37,889	0.49
Laurion Capital Ltd.	40,539	0.52
OZ Domestic Partners II, L.P.	39,291	0.51
SC Absolute Return Fund, LLC	237,523	3.07
SC Absolute Return Fund, LLC- Series B	159,662	2.07
Third Point Partners Qualified, L.P.	40,247	0.52
Total Absolute Return	724,682	

	Fair Value	Percentage of Total Cash & Investments
Private Equity		
Abbott Capital Private Equity Fund VI, L.P.	\$59,372	0.77%
Accel-KKR Capital Partners IV, L.P.	8,559	0.11
Accel-KKR Growth Capital Partners II, L.P.	2,107	0.03
Atalaya Special Opportunities Fund VI, L.P.	11,030	0.14
Athyrium Opportunities Fund II, L.P.	21,580	0.28
Dyal II US Investors, L.P.	9,327	0.12
Garrison Opportunity Fund III A LLC	15,306	0.20
H.I.G. Bayside Loan Opportunity Fund III (Europe-US\$), L.P.	16,150	0.21
H.I.G. Capital Partners V, L.P.	2,646	0.03
H.I.G. Europe Capital Partners II, L.P.	(256)	0.00
HarbourVest International Private Equity Partners VI-Partnership Fund L.P.	30,599	0.40
HarbourVest Partners VIII, L.P.	29,914	0.39
Khosla Ventures IV, L.P.	13,103	0.17
Khosla Ventures V, L.P.	7,596	0.10
Linden Capital Partners III, L.P.	3,570	0.05
Marlin Equity IV, L.P.	8,718	0.11
Marlin Heritage, L.P.	7,226	0.09
New Enterprise Associates 14, L.P.	31,878	0.41
New Enterprise Associates 15, L.P.	13,140	0.17
Private Equity Partners X, L.P.	58,267	0.75
RRJ Capital Master Fund II, L.P.	27,896	0.36
RRJ Capital Master Fund III, L.P.	1,334	0.02
Spectrum Equity VII, L.P.	11,511	0.15
Summit Partners Credit Fund, L.P.	10,918	0.14
Summit Partners Credit Fund II, L.P.	23,098	0.30
Summit Partners Venture Capital Fund III-A, L.P.	21,223	0.27
Summit Partners Venture Capital Fund IV, L.P.	1,540	0.02
Thoma Bravo Fund XI, L.P.	29,694	0.38
Thoma Bravo Fund XII, L.P.	1,463	0.02
TPG Opportunities Partners III, L.P.	16,745	0.22
Trinity Ventures XI, L.P.	18,087	0.23
Trinity Ventures XII, L.P.	2,200	0.03
TSG7 A, L.P.	(8)	0.00
TSG7 B, L.P.	220	0.00
Waterland Private Equity Fund V C.V.	8,394	0.11
Waterland Private Equity Fund VI, C.V.	2,200	0.03
Waterland Private Equity Fund VI Overflow Fund, C.V.	1	0.00
Wayzata Opportunities Fund III, L.P.	11,358	0.15
Total Private Equity	537,706	

# SUMMARY OF INVESTMENT ASSETS (CONTINUED) (Dollar Amounts Expressed in Thousands)

	Fair Value	Percentage of Total Cash & Investments
Fixed Income		
Domestic		
Brandywine Global Investment Management, LLC	\$211,784	2.74%
Metwest Asset Management	402,326	5.21
Neuberger Berman Fixed Income LLC	367,124	4.75
Prudential Investment Management	317,912	4.12
SC Credit Opportunities Mandate, LLC	148,435	1.92
Total Domestic Fixed Income	1,447,581	
International		
Metwest Asset Management	10,528	0.14
Neuberger Berman Fixed Income LLC	15,004	0.19
Prudential Investment Management	100,657	1.30
Total International Fixed Income	126,189	
Total Fixed Income	1,573,770	
Real Assets		
ArcLight Energy Partners Fund VI, L.P.	13,513	0.17
Atalaya SCERS SMA, LLC	11,923	0.15
BlackRock Realty Advisors - Separate Account	237,298	3.07
Blackstone Resources Select Offshore Fund	42,961	0.56
Brookfield Infrastructure Fund III, L.P.	3,644	0.05
Carlyle Power Partners II, L.P.	12,881	0.17
Cornerstone Realty - Separate Account	61,902	0.80
EnCap Energy Capital Fund IX, L.P.	26,094	0.34
EnCap Energy Capital Fund X, L.P.	7,740	0.10
EnCap Flatrock Midstrem Fund III, L.P.	3,111	0.04
First Reserve Energy Infrastructure Fund II, L.P.	5,807	0.08
Jamestown Premier Property Fund, L.P.	19,884	0.26
MetLife Core Property Fund, L.P.	48,949	0.63
Pantheon SCERS SIRF MM, LLC	35,640	0.46
Prime Property Fund, LLC	49,020	0.63
Principal US Property Account	37,482	0.49
Prologis Targeted Europe Logistics Fund, L.P.	30,835	0.40
Prologis Targeted US Logistics Fund, L.P.	31,429	0.41
Quantum Energy Partners VI, L.P.	7,834	0.10
State Street Global Advisors - Real Assets Strategy	263,532	3.41
Strategic Commodities Fund Ltd.	\$25,958	0.34
Townsend Real Estate Fund, L.P.	45,563	0.59
Wastewater Opportunity Fund, LLC	1,184	0.02
Total Real Assets	1,024,184	

	Fair Value	Percentage of Total Cash & Investments
Opportunities		
AEW Value Investors II, L.P.	2,092	0.03%
Allegis Value Trust	21,539	0.28
Atalaya Special Opportunities Fund V, L.P.	18,720	0.24
CIM Fund VIII, L.P.	18,103	0.23
ECE European Prime Shopping Centre Fund II, SCS-SIF	7,921	0.10
European Real Estate Debt Fund II, L.P.	29,955	0.39
Hammes Partners II, L.P.	7,124	0.09
Hines US Office Value Fund II, L.P.	6,927	0.09
KKR Real Estate Partners Americas, L.P.	21,551	0.28
NREP Nordic Strategies Fund, FCP-FIS	18,270	0.24
NREP Nordic Strategies Fund II, SCSp	4,454	0.06
Och-Ziff Real Estate Fund III, L.P.	8,526	0.11
Total Opportunities	165,182	
Overlay		
State Street Global Advisors	146,225	1.89
Total Overlay	146,225	
Total Investments at Fair Value	7,574,845	
Total infection at rail value		
Cash		
Cash (Unallocated)	140,631	1.82
Other Cash & Cash Equivalents	9,317	0.12
Total Cash	149,948	
Total Cash & Investments	7,724,793	100.0%
Other Assets		
Receivables	167,972	
Other Assets	378	
Securities Lending Collateral	422,520	
Total Other Assets	590,870	
Total Assets	8,315,663	
Liabilities		
Accounts Payable	\$38,485	
Investment Trades Payable	172,831	
Warrants Payable	962	
Securities Lending Liability	422,520	
Total Liabilities	634,798	
	<u></u>	
Net Position Restricted for Pension Benefits	\$7,680,865	

# TEN LARGEST STOCK HOLDINGS (BY FAIR VALUE)

As of June 30, 2016

			Fair Value
Rank	Shares	Security Name	(in thousands)
1	766,781	Microsoft Corp	\$39,236
2	228,903	Berkshire Hathaway Inc Cl B	33,143
3	45,328	Amazon.Com Inc	32,438
4	292,876	Apple Inc	27,999
5	428,228	JPMorgan Chase & Co	26,610
6	632,303	Oracle Corp	25,880
7	234,689	Aon Plc	25,635
8	35,902	Alphabet Inc Cl C	24,848
9	533,081	Citigroup Inc	22,597
10	221,375	Exxon Mobile Corp	20,752
Total of 1	Ten Largest St	ock Holdings	\$279,138

A complete list of the stock holdings is available.

# TEN LARGEST BOND HOLDINGS (BY FAIR VALUE)

As of June 30, 2016

	_				Fair Value
Rank	Par	Security Name	Interest Rate	Maturity	(in thousands)
1	20,760,000	United States Treasury N/B	1.38%	5/31/2021	\$21,134
2	18,950,000	United States Treasury N/B	1.13%	6/30/2021	19,044
3	15,550,000	United States Treasury N/B	2.50%	5/15/2046	16,204
4	10,885,000	United States Treasury N/B	2.88%	5/15/2043	12,240
5	11,755,000	United States Treasury N/B	0.75%	10/31/2017	11,783
6	8,435,000	GNMA II TBA 30YR	3.50%	7/20/2046	8,953
7	8,000,000	United States Treasury N/B	0.63%	5/31/2017	8,007
8	7,945,000	United States Treasury N/B	0.75%	2/28/2018	7,967
9	6,320,000	United States Treasury N/B	1.00%	12/31/2017	6,360
10	5,275,000	FNMA TBA 30YR	3.50%	7/14/2046	5,566
Total of Ten	Largest Bond	l Holdings		=	\$117,258

A complete list of the bond holdings is available.

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## SCHEDULE OF MANAGER FEES

# For the Year Ended June 30, 2016 (Dollar Amounts Expressed in Thousands)

Domestic Equity	
AllianceBernstein L.P.	\$210
Brown Advisory	217
CenterSquare Investment Management	312
Dalton, Greiner, Hartman, Maher & Co. LLC	529
Eagle Capital Management	1,871
Huber Capital Management	771
JP Morgan Asset Management	853
UBS Global Asset Mgmt US Sm Cap Growth Equities	151
Weatherbie Capital, LLC	392
Wedge Capital Management, LLP	700
Total Domestic Equity	6,006
International Equity	
Baillie Gifford & Co.	186
Capital International, Inc.	1,182
CBRE Clarion Securities	191
Lazard Asset Management	1,208
LSV Asset Management	1,731
Mondrian Emerging Markets Equity Fund, L.P.	221
Mondrian Emerging Markets Small Cap Equity Fund, L.P.	315
Mondrian International Small Cap Equity Fund, L.P.	590
William Blair Emerging Markets Small Cap Growth	266
William Blair International Small Cap Growth Portfolio	898
Total International Equity	6,788
Absolute Return	
AQR Delta Fund II, L.P.	954
Brevan Howard, L.P.	704
Claren Road Credit Partners, L.P.	303
Elliott International Limited	1,157
Jana Partners Qualified, L.P.	583
Lakewood Capital Partners, L.P.	805
Laurion Capital Ltd.	788
OZ Domestic Partners II, L.P.	605
SC Absolute Return Fund, LLC	1,843
SC Absolute Return Fund, LLC- Series B	976
Third Point Partners Qualified, L.P.	537

9,255

Total Absolute Return

## SCHEDULE OF MANAGER FEES (CONTINUED)

(Dollar Amounts Expressed in Thousands)

#### Private Equity

Abbott Capital Private Equity Fund VI, L.P.	\$596
Accel-KKR Capital Partners IV, L.P.	167
Accel-KKR Growth Capital Partners II, L.P.	200
Atalaya Special Opportunities Fund VI, L.P.	101
Athyrium Opportunities Fund II, L.P.	385
Dyal II US Investors, L.P.	539
Garrison Opportunity Fund III A, LLC	350
H.I.G. Bayside Loan Opportunity Fund III (Europe-US\$), L.P.	906
H.I.G. Capital Partners V, L.P.	948
H.I.G. Europe Capital Partners II, L.P.	62
HarbourVest International Private Equity Partners VI-Partnership Fund L.P.	358
HarbourVest Partners VIII, L.P.	463
Khosla Ventures IV, L.P.	(399)*
Khosla Ventures V, L.P.	324
Linden Capital Partners III, L.P.	291
Marlin Equity IV, L.P.	206
Marlin Heritage, L.P.	481
New Enterprise Associates 14, L.P.	185
New Enterprise Associates 15, L.P.	334
Private Equity Partners X, L.P.	687
RRJ Capital Master Fund II, L.P.	(1,042)*
RRJ Capital Master Fund III, L.P.	523
Spectrum Equity VII, L.P.	394
Summit Partners Credit Fund, L.P.	122
Summit Partners Credit Fund II, L.P.	263
Thoma Bravo Fund XI, L.P.	546
Thoma Bravo Fund XII, L.P.	147
TPG Opportunities Partners III, L.P.	697
Trinity Ventures XI, L.P.	500
Trinity Ventures XII, L.P.	140
TSG7 A, L.P.	80
TSG7 B, L.P.	14
Waterland Private Equity Fund V C.V.	89
Waterland Private Equity Fund VI, C.V.	676
Wayzata Opportunities Fund III, L.P.	450
Total Private Equity	10,783

## SCHEDULE OF MANAGER FEES (CONTINUED)

(Dollar Amounts Expressed in Thousands)

#### Fixed Income

Brandywine Global Investment Management, LLC	\$780
Metwest Asset Management	778
Neuberger Berman Fixed Income, LLC	214
Prudential Investment Management	733
SC Credit Opportunities Mandate, LLC	1,108
Total Fixed Income	3,613
Real Assets	
ArcLight Energy Partners Fund VI, L.P.	918
Atalaya SCERS SMA, LLC	280
BlackRock Realty Advisors - Separate Account	2,733
Blackstone Resources Select Offshore Fund	416
Brookfield Infrastructure Fund III, L.P.	112
Carlyle Power Partners II, L.P.	1,199
Cornerstone Patriot Fund	102
Cornerstone Realty - Separate Account	732
EnCap Energy Capital Fund IX, L.P.	1,534
EnCap Energy Capital Fund X, L.P.	600
EnCap Flatrock Midstrem Fund III, L.P.	313
First Reserve Energy Infrastructure Fund II, L.P.	243
Jamestown Premier Property Fund, L.P.	368
MetLife Core Property Fund, L.P.	224
Pantheon SCERS SIRF MM, LLC	385
Prime Property Fund, LLC	550
Principal US Property Account	258
Prologis Targeted Europe Logistics Fund, L.P.	243
Prologis Targeted US Logistics Fund, L.P.	171
Quantum Energy Partners VI, L.P.	759
State Street Global Advisors - Real Assets Strategy	874
Strategic Commodities Fund Ltd.	171
Townsend Real Estate Fund, L.P.	14
Wastewater Opportunity Fund, LLC	620
Total Real Assets	13,819

#### Opportunities

AEW Value Investors II, L.P.	\$35
Allegis Value Trust	123
Atalaya Special Opportunities Fund V, L.P.	439
CIM Fund VIII, L.P.	438
ECE European Prime Shopping Centre Fund II, SCS-SIF	108
European Real Estate Debt Fund II, L.P.	448
Hammes Partners II, L.P.	875
Hines US Office Value Fund II, L.P.	170
KKR Real Estate Partners Americas, L.P.	361
NREP Nordic Strategies Fund, FCP-FIS	296
NREP Nordic Strategies Fund II, SCSp	304
Och-Ziff Real Estate Fund III, L.P.	525
Total Opportunities	4,122
Overlay	
State Street Global Advisors	596
Total Overlay	596
Total Manager Fees	\$54,982

 $<sup>\</sup>ensuremath{^{*}}$  Negative amounts due to decrease in unrealized carried interest allocation.

# INVESTMENT PROFESSIONALS

### As of June 30, 2016

**Domestic Equity** 

AllianceBernstein L.P.

**Brown Advisory** 

CenterSquare Investment Management

Dalton, Greiner, Hartman, Maher & Co. LLC

Eagle Capital Management

**Huber Capital Management** 

JP Morgan Asset Management

**UBS Global Asset Mgmt** 

Weatherbie Capital, LLC

Wedge Capital Management, LLP

**International Equity** 

Baillie Gifford & Co.

**CBRE Clarion Securities** 

Lazard Asset Management

LSV Asset Management

Mondrian Emerging Markets Equity Fund, L.P.

Mondrian Emerging Markets Small Cap Equity Fund, L.P.

Mondrian International Small Cap Equity Fund, L.P.

William Blair Emerging Markets Small Cap Growth

William Blair International Small Cap Growth Portfolio

**Absolute Return** 

AQR Delta Fund II, L.P.

Brevan Howard, L.P.

Claren Road Credit Partners, L.P.

**Elliott International Limited** 

**Grosvenor Capital Management** 

Jana Partners Qualified, L.P.

Lakewood Capital Partners, L.P.

Laurion Capital Ltd.

OZ Domestic Partners II, L.P.

SC Absolute Return Fund, LLC

SC Absolute Return Fund, LLC- Series B

Third Point Partners Qualified, L.P.

**Private Equity** 

Abbott Capital Private Equity Fund VI, L.P.

Accel-KKR Capital Partners IV, L.P.

Accel-KKR Capital Partners V, L.P.

Accel-KKR Growth Capital Partners II, L.P.

Atalaya Special Opportunities Fund VI, L.P.

Private Equity (continued)

Athyrium Opportunities Fund II, L.P.

Dyal II US Investors, L.P.

Garrison Opportunity Fund III A LLC

H.I.G. Bayside Loan Opportunity Fund III (Europe), L.P.

H.I.G. Capital Partners V, L.P.

H.I.G. Europe Capital Partners II, L.P.

HarbourVest International Private Equity Partners VI-Partnership

Fund L.P.

HarbourVest Partners VIII, L.P.

Khosla Ventures IV, L.P.

Khosla Ventures V, L.P.

Linden Capital Partners III, L.P.

Marlin Equity IV, L.P.

Marlin Heritage, L.P.

New Enterprise Associates 14, L.P.

New Enterprise Associates 15, L.P.

Private Equity Partners X, L.P.

RRJ Capital Master Fund II, L.P.

RRJ Capital Master Fund III, L.P.

Spectrum Equity VII, L.P.

Summit Partners Credit Fund, L.P.

Summit Partners Credit Fund II, L.P.

Summit Partners Venture Capital Fund III-A, L.P.

Summit Partners Venture Capital Fund IV, L.P.

Thoma Bravo Fund XI, L.P.

Thoma Bravo Fund XII, L.P.

TPG Opportunities Partners III, L.P.

Trinity Ventures XI, L.P.

Trinity Ventures XII, L.P.

TSG7 A, L.P.

TSG7 B, L.P.

Waterland Private Equity Fund V C.V.

Waterland Private Equity Fund VI, C.V.

Waterland Private Equity Fund VI Overflow Fund, C.V.

Wayzata Opportunities Fund III, L.P.

**Fixed Income** 

Brandywine Global Investment Management, LLC

Metwest Asset Management

Neuberger Berman Fixed Income LLC

Prudential Investment Management

SC Credit Opportunities Mandate, LLC

# INVESTMENT PROFESSIONALS (CONTINUED)

### **Real Assets**

ArcLight Energy Partners Fund VI, L.P.

Atalaya SCERS SMA, LLC

BlackRock Realty Advisors - Separate Account

Blackstone Resources Select Offshore Fund

Brookfield Infrastructure Fund III, L.P.

Carlyle Power Partners II, L.P.

Cornerstone Realty - Separate Account

EnCap Energy Capital Fund IX, L.P.

EnCap Energy Capital Fund X, L.P.

EnCap Flatrock Midstrem Fund III, L.P.

First Reserve Energy Infrastructure Fund II, L.P.

IFM Global Infrastructure Fund

Jamestown Premier Property Fund, L.P.

MetLife Core Property Fund, L.P.

Pantheon SCERS SIRF MM, LLC

Prime Property Fund, LLC

Principal US Property Account

Prologis Targeted Europe Logistics Fund, L.P.

Prologis Targeted US Logistics Fund, L.P.

Quantum Energy Partners VI, L.P.

State Street Global Advisors - Real Asset Strategy

Strategic Commodities Fund Ltd.

Townsend Real Estate Fund, L.P.

Wastewater Opportunity Fund, LLC

### **Opportunities**

AEW Value Investors II, L.P.

Allegis Value Trust

Atalaya Special Opportunities Fund V, L.P.

CIM Fund VIII, L.P.

ECE European Prime Shopping Centre Fund II, SCS-SIF

European Real Estate Debt Fund II, L.P.

Hammes Partners II, L.P.

Hines US Office Value Fund II, L.P.

KKR Real Estate Partners Americas, L.P.

NREP Nordic Strategies Fund, FCP-FIS

NREP Nordic Strategies Fund II, SCSp

Och-Ziff Real Estate Fund III, L.P.

# **Overlay**

State Street Global Advisors

### **Investment Consultant**

Cliffwater, LLC

Verus Advisory, Inc.

The Townsend Group

### **Proxy Advisor**

Glass Lewis & Co.

Institutional Shareholder Services, Inc.

### **Legal Counsel**

Foley & Lardner LLP

**K&L Gates LLP** 

Nossaman LLP

**Public Pension Consultants** 

Stroock & Stroock & Lavan LLP

# SCHEDULE OF EQUITY BROKERAGE COMMISSIONS

For the Year Ended June 30, 2016

Broker Name	Commission per Share	Shares/Par Value	Total Commission	Total of Commission
Capital Institutional Svcs Inc. Equities	\$0.0357	2,064,154	\$73,590	5.58%
State Street Bank And Trust Company	0.0110	6,153,868	67,944	5.15
Merrill Lynch International	0.0064	9,870,406	63,083	4.78
Citigroup Global Markets Inc.	0.0044	10,567,761	46,249	3.50
State Street Bank And Trust Co.	0.0035	12,624,085	44,168	3.35
Credit Suisse Securities (USA) LLC	0.0036	12,159,994	43,198	3.28
Liquidnet Inc.	0.0296	1,421,158	42,010	3.19
Morgan Stanley Co. Incorporated	0.0059	6,759,957	39,901	3.03
Goldman Sachs & Co.	0.0023	17,234,184	39,083	2.96
Investment Technology Group Inc.	0.0374	1,039,731	38,896	2.95
JP Morgan Securities Inc.	0.0208	1,693,372	35,283	2.68
UBS Limited	0.0076	4,543,477	34,382	2.61
Themis Trading LLC	0.0400	810,455	32,418	2.46
Deutsche Bank Securities Inc.	0.0059	5,484,465	32,348	2.45
State Street Global Markets	0.0150	2,127,685	31,871	2.42
Credit Suisse Securities (Europe) Ltd.	0.0115	2,499,592	28,722	2.18
JP Morgan Clearing Corp.	0.0061	3,913,505	23,995	1.82
Macquariebank Limited	0.0031	6,915,521	21,559	1.63
Jefferies & Company Inc.	0.0379	557,670	21,161	1.60
ConvergEx Execution Solutions LLC	0.0475	428,979	20,376	1.54
UBS Securities LLC	0.0168	1,190,624	19,968	1.51
Wells Fargo Securities, LLC	0.0301	642,925	19,343	1.47
UBS Securities Asia Ltd.	0.0029	6,554,588	18,803	1.43
JP Morgan Securities Plc.	0.0160	1,137,579	18,238	1.38
JP Morgan Securities (Asia Pacific) Ltd.	0.0044	3,419,400	15,193	1.15
SMBC Securities Inc.	0.0534	281,598	15,047	1.14
Citigroup Global Markets Limited	0.0112	1,224,332	13,740	1.04
All Other Brokerage Firms*	0.0098	42,656,574	418,287	31.72
Total Brokerage Commissions	\$0.0079	165,977,639	\$1,318,856	100.00%
Brokerage Commission Recapture			(61,167)	
Net Brokerage Commissions			\$1,257,689	

<sup>\*</sup>All other brokerage firms is comprised of approximately 198 additional firms, each receiving less than 1% of total commissions. A complete listing of brokerage fees is available.

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# ACTUARIAL CERTIFICATION LETTER



100 Montgomery Street Suite 500 San Francisco, CA 94104-4308 T 415.263.8200 www.segalco.com

November 14, 2016

Board of Retirement Sacramento County Employees' Retirement System 980 9<sup>th</sup> Street, Suite 1900 Sacramento, CA 95814

Re: Actuarial Valuation for the Sacramento County Employees' Retirement System

Dear Members of the Board:

Segal Consulting (Segal) prepared the June 30, 2016 annual actuarial valuation of the Sacramento County Employees' Retirement System. We certify that the valuation was performed in accordance with generally accepted actuarial principles and practices and SCERS' funding policy that was last reviewed with the Board in 2013. In particular, it is our understanding that the assumptions and methods used for funding purposes meet the parameters set by Actuarial Standards of Practice (ASOPs).

As part of the June 30, 2016 actuarial valuation, Segal conducted an examination of all participant data for reasonableness. Summaries of the employee data used in performing the actuarial valuations over the past several years are provided in our valuation report. We did not audit the System's financial statements. For actuarial valuation purposes, Plan assets are valued at Actuarial Value. Under this method, the assets used to determine employer contribution rates take into account market value by recognizing the differences between the total actual investment return at market value and the expected investment return from the prior six years. Deferred gains and losses as of June 30, 2013 have been combined and will be recognized over a six-year period starting July 1, 2013. Investment gains/losses established after July 1, 2013 will be recognized over a seven-year period and the deferred return is further adjusted, if necessary, so that the actuarial value of assets will stay within 30% of the market value of assets.

One of the general goals of an actuarial valuation is to establish contribution rates which, over time, will remain level as a percentage of payroll unless Plan benefit provisions are changed. Actuarial funding is based on the Entry Age Cost Method. Under this method, the employer

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It is our understanding that there are additional members who have not been reported to the Retirement System by their employers but who are entitled to accrue pension benefits. We have been informed by the System that these member records are currently being reviewed and that, in order to deliver our valuation report in a timely manner, we should not wait for these additional member records. These members have not been included in the June 30, 2016 valuation report.

Board of Retirement Sacramento County Employees' Retirement System November 14, 2016 Page 2

contribution rate provides for current cost (normal cost) plus a level percentage of payroll to amortize any unfunded actuarial accrued liability (UAAL). The UAAL is amortized over different periods depending on the source.

The UAAL established as a result of the Early Retirement Incentive Program for members of the Sacramento County Law Enforcement Managers Association (LEMA) is amortized as a level percentage of payroll over a 10-year period beginning June 30, 2010. The System's remaining outstanding balance of the June 30, 2012 UAAL is amortized as a level percentage of payroll over a declining 23-year period (19 years as of June 30, 2016). Effective with the June 30, 2013 valuation, the change in UAAL that arises due to actuarial gains or losses or from changes in actuarial assumptions or methods at each valuation is amortized as a level percentage of payroll over its own declining 20-year period. Any change in UAAL that arises due to plan amendments will be amortized as a level percentage of payroll over its own declining 15-year period and any change in UAAL due to retirement incentive programs will be amortized as a level percentage of payroll over its own declining period of up to 5 years. A 5-year period (2 years as of June 30, 2016) is used to amortize the increase in UAAL as a result of earlier than expected retirement for members of the Deputy Sheriffs' Association who submitted an application to retire before June 30, 2016 is illustrated in the Schedule of Funding Progress.

Notes number 1, 4 and 5 to the Basic Financial Statements and the Required Supplemental Information (RSI) included in the Financial Section were prepared by the System based on the results of the Governmental Accounting Standards Board Statement 67 (GASBS 67) actuarial valuation as of June 30, 2016 prepared by Segal. For the Financial Section of the Comprehensive Annual Financial Report, Segal provided the Schedule of Changes in Net Pension Liability and Schedule of Employer Contributions as shown in the RSI. A listing of the other supporting schedules Segal prepared for inclusion in the Actuarial and Statistical Sections of the System's CAFR is provided below. These schedules were prepared based on the results of the actuarial valuation as of June 30, 2016 for funding purposes.

- 1. Retirees and beneficiaries added to and removed from retiree payroll;
- 2. Solvency test; and
- 3. Schedule of retiree members by type of benefit.

The valuation assumptions included in the Actuarial Section were adopted by the Retirement Board based on the June 30, 2013 Experience Analysis and the June 30, 2014 Review of Economic Assumptions. It is our opinion that the assumptions used in the June 30, 2016 valuation produce results, which, in the aggregate, anticipate the future experience of the Plan. Actuarial valuations are performed on an annual basis. An experience analysis is performed every three years. The next experience analysis is due to be performed as of June 30, 2016 and assumptions approved in that analysis will be applied in the June 30, 2017 valuation.

# **ACTUARIAL CERTIFICATION LETTER (CONTINUED)**

Board of Retirement Sacramento County Employees' Retirement System November 14, 2016 Page 3

In the June 30, 2016 valuation, the ratio of the valuation assets to actuarial accrued liabilities increased from 86.8% to 87.3%. The employer's rate has decreased from 22.29% of payroll to 21.13% of payroll, while the employee's rate has increased from 8.88% of payroll to 10.06% of payroll. The decrease in the employer's rate and the increase in the employee's rate is primarily a result of certain employees in the legacy tiers agreeing to pick up some of the employer's normal cost rate.

In the June 30, 2016 valuation, the actuarial value of assets included \$555.5 million in deferred investment losses, which represented about 7% of the market value of assets. If these deferred investment losses were recognized immediately in the actuarial value of assets, the funded percentage would decrease from 87.3% to 81.4% and the aggregate employer contribution rate, expressed as a percent of payroll, would increase from about 21.1% to 25.4%.

The undersigned are Members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Sincerely,

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

Vice President and Actuary

Andy Yeung, ASA, MAAA, FCA, EA

MYM/bqb Enclosures This page intentionally left blank.

# SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

GASB Statement No. 67 rules only redefine pension liability and expense for financial reporting purposes, and do not apply to contribution amounts for pension funding purposes. Employers and plans can still develop and adopt funding policies under current practices. SCERS' Board of Retirement and management staff are responsible for establishing and maintaining the System's funding policy. When measuring the total pension liability GASB uses the same actuarial cost method (Entry Age Method) and the same type of discount rate (expected return on assets) as SCERS uses for funding. This means that the Normal Cost component of the annual plan cost is determined on the same basis for funding and financial reporting.

The following assumptions and methods were adopted by the Board for the June 30, 2016 valuation on November 7, 2016.

# Assumptions:

Valuation Interest Rate and

Rate of Return on Investments: 7.50% net of administration and investment expenses

Inflation Assumption: 3.25%

Cost-of-Living Adjustment: 3.25% for Miscellaneous and Safety Tier 1 Members

0.00% for Miscellaneous Tier 2 Members

2.00% for Miscellaneous Tier 3, Tier 4 and Tier 5 and

Safety Tier 2, Tier 3 and Tier 4 Members

Employee Contribution Crediting

Rate: 5-year Treasury rate, assuming sufficient net

investment earnings

Post-Retirement Mortality:

a) Service For Miscellaneous Members and Beneficiaries -

RP-2000 Combined Healthy Mortality Table projected

with Scale BB to 2022

For Safety Members - RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2022 set back one year for males and set forward two years for

females

b) Disability For Miscellaneous Members - RP-2000 Disabled Retiree

Mortality Table projected with Scale BB to 2022 with no

age adjustment for males and set forward three years

for females

For Safety Members - RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2022 set

forward two years

c) Employee Contribution Rate For Miscellaneous Members - RP-2000 Combined

Healthy Mortality Table projected with Scale BB to

2022 weighted 40% male and 60% female

For Safety Members - RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2022 set back one year for males and set forward two years

for females weighted 70% male and 30% female

Pre-Retirement Mortality: Based upon the June 30, 2013 Actuarial Experience Study

Withdrawal Rates: Based upon the June 30, 2013 Actuarial Experience Study

Disability Rates: Based upon the June 30, 2013 Actuarial Experience Study

Service Retirement Rates: Based upon the June 30, 2013 Actuarial Experience Study

# SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS (CONTINUED)

Salary Increases: Merit and longevity increases are based upon the June 30, 2013

Actuarial Experience Study plus 3.25% inflation and across the

board salary increases of 0.25% per year.

Actuarial Value of Assets: The market value of assets less unrecognized returns in each of

the last six years. Unrecognized return is equal to the difference between actual and expected returns on a market value basis and is recognized over a seven-year period. The deferred return is further adjusted, if necessary, so that the actuarial value will stay within 30% of the market value of assets. Deferred gains and losses as of June 30, 2013 have been combined and will be recognized in equal amounts over a six-year period starting

July 1, 2013.

Valuation Value of Assets: Actuarial value of assets reduced by the value of non-valuation

reserves and designations.

Actuarial Cost Method: Entry Age Cost Method. Entry Age is the age at the members' hire

date. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are based on costs allocated as a level percentage of compensation, as if the current benefit formulas

have always been in effect.

Amortization Policy: The UAAL established as a result of the Early Retirement

Incentive Program for LEMA members is amortized over a 10-year period beginning June 30, 2010. The balance of the UAAL as of June 30, 2012 shall be amortized separately from any future changes in UAAL over a period of 23 years as of June 30, 2012.

Any new UAAL as a result of actuarial gains or losses identified in the annual valuation as of June 30 will be amortized over a period

of 20 years.

Any new UAAL as a result of changes in actuarial assumptions or

methods will be amortized over a period of 20 years.

The change in UAAL as a result of any plan amendments will be amortized over a period of 15 years and the change in UAAL resulting from retirement incentive programs will be amortized

over a period of up to 5 years.

Percentage of Members Married at Retirement:

80% for male members and 55% for female members.

Retirement Age for Deferred Vested Members:

Miscellaneous Members - 59

Safety Members - 53

Percentage Eligible for

Reciprocal Benefits: Miscellaneous Members - 40%

Safety Members - 50%

# SUMMARY OF PLAN PROVISIONS

Briefly summarized below are the major provisions of the County Employees' Retirement Law of 1937, as amended through June 30, 2016, that are applicable to the Sacramento County Employees' Retirement System.

### Membership

Miscellaneous employees entering before September 27, 1981 are Tier 1 members. Miscellaneous employees entering on or after September 27, 1981 and June 27, 1993 are members of Tier 2 or Tier 3, respectively. County Miscellaneous employees entering on or after January 1, 2012 but prior to January 1, 2013 are members of Tier 4. Miscellaneous employees entering on or after January 1, 2013 are members of Tier 5. Safety members entering before June 25, 1995 are Tier 1 members. Safety members entering on or after June 25, 1995 are Tier 2 members. County Safety employees entering on or after January 1, 2012 but prior to January 1, 2013 are members of Tier 3. Safety members entering on or after January 1, 2013 are members of Tier 4.

### Final Average Salary

Final average salary ("FAS") is defined as the highest 12 consecutive months of compensation earnable for Miscellaneous Tier 1 and Safety Tier 1, highest 36 consecutive months for Miscellaneous Tier 2, Tier 3, Tier 4 and Tier 5 and Safety Tier 2, Tier 3 and Tier 4.

### **Return of Contributions**

Upon separation from service, a member may elect to leave his or her contributions on deposit. If the member has five or more years of service, he or she may elect to receive a deferred benefit when eligible for retirement. If the member has less than five years of service, he or she may request a return of contributions, plus interest, at any time.

### Service Retirement Benefit

Miscellaneous Tier 1, Tier 2, Tier 3 and Tier 4 and Safety Tier 1, Tier 2 and Tier 3 members with 10 years of service who have attained the age of 50 are eligible to retire. All members with 30 years of service (20 years for Safety), regardless of age, are eligible to retire.

Miscellaneous Tier 5 and Safety Tier 4 members with 5 years of service who have attained the age of 52 (age 50 for Safety) are eligible to retire.

The benefit expressed as a percentage of monthly FAS per year of service, depending on age at retirement, is illustrated below for typical ages. For members whose benefits are integrated with Social Security, the benefit is reduced by one-third of the percentage shown below times the first \$350 of monthly FAS per year of service after January 1, 1956.

Age	Miscellaneous Tier 1, 2 and 3	Miscellaneous Tier 4	Miscellaneous Tier 5	Safety Tier 1 and 2	Safety Tier 3	Safety Tier 4
50	1.48%	1.18%	N/A	3.00%	2.29%	2.00%
52	1.67%	1.30%	1.00%	3.00%	2.54%	2.20%
55	1.95%	1.49%	1.30%	3.00%	3.00%	2.50%
57	2.18%	1.64%	1.50%	3.00%	3.00%	2.70%
60	2.44%	1.92%	1.80%	3.00%	3.00%	2.70%
62	2.61%	2.09%	2.00%	3.00%	3.00%	2.70%
65	2.61%	2.43%	2.30%	3.00%	3.00%	2.70%
67 and over	2.61%	2.43%	2.50%	3.00%	3.00%	2.70%

### **Disability Benefit**

Members with five years of service, regardless of age, are eligible for nonservice-connected disability.

For Miscellaneous Tier 1 members, the benefit is 1.5% (1.8% for Safety Tier 1 members) of FAS for each year of service. If this benefit does not equal one-third of FAS, the benefit is increased by the same percentage of FAS for the years which would have been credited to age 65 (age 55 for Safety members), but the total benefit in this case cannot be more than one-third of FAS.

For Tier 2, Tier 3, Tier 4 and Tier 5 members, the benefit is 20% of FAS for the first five years of service plus 2% for each additional year for a maximum of 40% of FAS.

If the disability is service connected, the member may retire regardless of length of service, with a benefit of 50% of FAS or 100% Service Retirement benefit, if greater.

### Death Benefit (Before Retirement)

In addition to the return of contributions, a death benefit is payable to the member's beneficiary or estate equal to one month's salary for each completed year of service under the retirement system, based on the final year's average salary, but not to exceed six (6) month's salary.

If a member dies while eligible for service retirement or nonservice-connected disability, the spouse receives 60% of the allowance that the member would have received for retirement.

If a member dies in the performance of duty, the spouse receives 50% of the member's final average salary or 100% of Service Retirement benefit, if greater.

# Death Benefit (After Retirement)

If a member dies after retirement, a \$4,000 lump sum burial allowance is paid to the beneficiary or estate.

If the retirement was for service-connected disability, 100% of the member's allowance as it was at death is continued to the eligible spouse for life.

If the retirement was for other than service-connected disability and the member elected the unmodified option, 60% of the member's allowance is continued to an eligible spouse for life.

An eligible spouse is a surviving spouse who was married to the member at least one year prior to the date of retirement.

### Maximum Benefit

The maximum benefit payable to a member or beneficiary is 100% of FAS for Miscellaneous Tier 1, Tier 2, Tier 3 and Tier 4 and Safety Tier 1, Tier 2 and Tier 3. There is no maximum benefit for Miscellaneous Tier 5 and Safety Tier 4 members.

### Cost-of-Living

The maximum increase in retirement allowance is 4% per year for Miscellaneous Tier 1 and Safety Tier 1 members and 2% for Safety Tier 2, Tier 3 and Tier 4, and Miscellaneous Tier 3, Tier 4 and Tier 5 members. Miscellaneous Tier 2 members have no cost-of-living benefit. The cost-of-living increases effective in the month of April are based on the average annual change in the Consumer Price Index for the calendar year preceding April.

# SUMMARY OF PLAN PROVISIONS (CONTINUED)

# **Contribution Rates**

Basic member contribution rates are based on the age-nearest birthday at entry into the System (single rate for entrants after January 1, 1975). The rates are designed to provide an average annuity at age 55 equal to 1/240 of FAS for Miscellaneous Tier 1, 2 and 3 members, at age 60 equal to 1/120 of FAS for Miscellaneous Tier 4 members and 1/100 of FAS at age 50 for Safety Tier 1, Tier 2 and Tier 3 members. For Miscellaneous Tier 5 and Safety Tier 4 members, the rates are 50% of the Normal Cost rate. For members integrated with Social Security, the above contributions are reduced by one-third of that portion of such contribution payable with respect to the first \$350 of monthly salary. Cost-of-living contribution rates are designed to pay for one-half of the future cost-of-living costs. Member contributions are refundable upon termination from the system.

The employer contribution rates are actuarially determined to provide for the balance of the contributions needed to fund the benefits promised by the System.

# SCHEDULE OF ACTIVE MEMBER VALUATION DATA

Valuation			Annual Payroll	Annual Average Pay	% Increase/ (decrease) in
Date	Plan Type	Number	(in thousands)	(in thousands)	Average Pay*
6/30/2016	Miscellaneous	10,363	\$723,429	\$69.8	1.80%
	Safety	2,030	215,126	106.0	2.20
	Total	12,393	\$938,555	<u>\$75.7</u>	1.88%
6/30/2015	Miscellaneous	10,093	\$692,138	\$68.6	1.84%
	Safety	1,979	205,203	103.7	1.36
	Total	12,072	\$897,341	<u>\$74.3</u>	1.78%
6/30/2014	Miscellaneous	10,085	\$679,079	\$67.3	(0.15)%
	Safety	1,964	200,920	102.3	(0.01)
	Total	12,049	\$879,999	<u>\$73.0</u>	0.00%
6/30/2013	Miscellaneous	10,113	\$681,789	\$67.4	0.30%
	Safety	1,913	195,868	102.4	4.38
	Total	12,026	\$877,657	<u>\$73.0</u>	1.39%
6/30/2012	Miscellaneous	10,256	\$689,438	\$67.2	0.75%
	Safety	1,899	186,234	98.1	4.70
	Total	12,155	\$875,672	<u>\$72.0</u>	1.69%
6/30/2011	Miscellaneous	10,521	\$701,494	\$66.7	3.73%
	Safety	1,913	179,272	93.7	2.52
	Total	12,434	\$880,766	<u>\$70.8</u>	3.51%
6/30/2010	Miscellaneous	11,312	\$727,445	\$64.3	4.38%
	Safety	2,028	185,283	91.4	6.65
	Total	13,340	\$912,728	\$68.4	4.59%
6/30/2009	Miscellaneous	12,454	\$767,501	\$61.6	10.58%
	Safety	2,342	200,629	85.7	8.51
	Total	14,796	\$968,130	\$65.4	10.00%
6/30/2008	Miscellaneous	12,725	\$709,159	\$55.7	4.96%
	Safety	2,455	193,812	78.9	5.96
	Total	15,180	\$902,971	<u>\$59.5</u>	5.15%
6/30/2007	Miscellaneous	12,327	\$654,497	\$53.1	4.16%
	Safety	2,389	177,987	74.5	4.53
	Total	14,716	\$832,484	\$56.6	4.18%

Source: Actuarial Valuations from June 30, 2007 through 2016

<sup>\*</sup>Reflects the increase in average salary for members at the beginning of the year versus those at the end of the year. It does not reflect the average salary increases received by members who worked the full year.

# RETIREES AND BENEFICIARIES ADDED TO AND REMOVED FROM RETIREE PAYROLL

Plan Year End	At Beginning of Year	Added During Year	Removed During Year	At End of Year	Annual Retiree Payroll (in thousands)	Payroll added During Year (in thousands)	Payroll Removed During Year (in thousands)	% Increase In Annual Retiree Payroll	Average Annual Allowance
6/30/2016	10,541	727	308	10,960	\$415,105	\$35,144	\$8,591	6.83%	\$37,875
6/30/2015	10,049	776	284	10,541	388,552	40,636	7,849	9.22	36,861
6/30/2014	9,634	674	259	10,049	355,765	31,335	6,746	7.42	35,403
6/30/2013	9,239	635	240	9,634	331,176	29,416	6,431	7.46	34,376
6/30/2012	8,821	660	242	9,239	308,191	29,693	5,511	8.51	33,358
6/30/2011	8,346	699	224	8,821	284,009	29,805	5,009	9.57	32,197
6/30/2010	7,968	599	221	8,346	259,213	19,276	4,639	5.98	31,058
6/30/2009	7,709	503	244	7,968	244,576	25,347	5,440	8.86	30,695
6/30/2008	7,464	490	245	7,709	224,669	22,527	4,745	8.60	29,144
6/30/2007	7,108	563	207	7,464	206,887	23,837	3,881	10.68	27,718

Note: Participants are counted once for each benefit received.

# 

Actuarial Valuation Date	Actuarial Value of Assets* (a)	Actuarial Accrued of Liability (AAL)* (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) / c)
6/30/2016	\$8,236,402	\$9,436,090	\$1,199,688	87.3%	\$938,555	127.8%
6/30/2015	7,838,825	9,028,679	1,189,854	86.8	897,341	132.6
6/30/2014	7,312,993	8,580,928	1,267,935	85.2	879,999	144.1
6/30/2013	6,797,757	8,210,980	1,413,223	82.8	877,657	161.0
6/30/2012	6,529,895	7,838,223	1,308,328	83.3	875,672	149.4
6/30/2011	6,420,824	7,382,897	962,073	87.0	880,766	109.2
6/30/2010**	6,216,994	7,090,497	873,503	87.7	912,644	95.7
6/30/2009	5,730,215	6,661,993	931,778	86.0	968,130	96.2
6/30/2008	5,930,758	6,363,355	432,597	93.2	902,971	47.9
6/30/2007	5,406,461	5,788,336	381,875	93.4	832,484	45.9

Source: Actuarial Valuations from June 30, 2007 through 2016

See Schedule 2: Schedule of Employer Contributions provided as Required Supplementary Information for actuarially determined and actual contributions.



<sup>\*</sup>Includes contingency reserve and retiree death benefit reserves.

<sup>\*\*</sup> The June 30, 2010 results have been revised to reflect the correct actuarial accrued liability which was overstated in the June 30, 2010 valuation.

# SOLVENCY TESTS (Dollar Amounts Expressed in Thousands)

Valuation Date	Active Member Contributions	Retired/ Vested Members	Active Members (Employer Financed Portion)	Total	Actuarial Value of Assets	Active Member Contributions	Retired/ Vested Members	Active Members (Employer Financed Portion)
6/30/2016	\$677,596	\$5,635,248	\$3,123,246	\$9,436,090	\$8,236,402	100%	100%	62%
6/30/2015	645,591	5,356,228	3,026,860	9,028,679	7,838,825	100	100	61
6/30/2014	632,969	4,939,239	3,008,720	8,580,928	7,321,993	100	100	58
6/30/2013	619,660	4,566,212	3,025,108	8,210,980	6,797,757	100	100	53
6/30/2012	595,979	4,284,864	2,957,380	7,838,223	6,529,895	100	100	56
6/30/2011	576,633	3,930,252	2,876,012	7,382,897	6,420,824	100	100	67
6/30/2010*	571,866	3,626,664	2,891,967	7,090,497	6,216,994	100	100	70
6/30/2009	561,461	3,399,695	2,700,837	6,661,993	5,730,215	100	100	66
6/30/2008	551,181	3,150,635	2,661,539	6,363,355	5,930,758	100	100	84
6/30/2007	520,420	2,920,508	2,347,408	5,788,336	5,406,461	100	100	84

Events affecting year to year comparability:

6/30/07 - Investment return assumption increased from 7.75% to 7.875%.

- Salary increase assumption increased from 5.45% to 5.65%.
- 6/30/10 Investment return assumption decreased from 7.875% to 7.75%.
- 6/30/11 Modification in non-economic assumptions.
- 6/30/12 Investment return assumption decreased from 7.75% to 7.50%;
  - Inflation assumption decreased from 3.50% to 3.25%;
  - Salary increase assumption decreased from 5.65% to 5.40%;
  - COLA increase assumption for Tier 1 decrease from 3.40% to 3.25%.
- 6/30/13 Actuarial cost method changed from Aggregate Entry Age Normal Cost Method to Individual Entry Age Normal Cost Method.
  - Changes to the amortization periods used for various future changes in liability:
    - UAAL established as a result of Early Retirement Incentive Program for LEMA is amortized over a 10-year period beginning June 30, 2010;
    - UAAL as a result of actuarial gains or losses as of June 30 will be amortized over a 20-year period;
    - UAAL as a result of changes in actuarial assumptions or methods to be amortized over a 20-year period;
    - Change in UAAL as a result of plan amendments to be amortized over a 15-year period;
    - UAAL as a result from retirement incentive programs will be amortized over a period up to 5 years.

6/30/14 - Changes to post-retirement mortality rates and termination rates before retirement.

- Changes to retirement age and benefit for deferred vested members.
- Changes to annual rates of compensation increase.

<sup>\*</sup> The June 30, 2010 results have been revised to reflect the correct actuarial accrued liability which was overstated in the June 30, 2010 valuation.

# Actuarial Section | 123

# ACTUARIAL ANALYSIS OF FINANCIAL EXPERIENCE (Dollar Amounts Expressed in Millions)

		Plan Years Ended June 30								
	2016	2015	2014	2013	2012	2011	2010*	2009	2008	2007
Prior Valuation Unfunded Actuarial Liability	\$1,190	\$1,268	\$1,413	\$1,308	\$962	\$874	\$932	\$433	\$382	\$366
Salary Increase Greater (Less) than Expected	(39)	(39)	(138)	(113)	(102)	(68)	(110)	42	55	68
Asset Return Less (Greater) than Expected	62	(24)	(38)	152	257	209	3	445	9	(93)
Other Experience	(13)	(15)	15	66	58	(31)	(59)	12	(13)	(15)
Economic and Non-Economic Assumption Changes		-	16	-	133	(22)	108	-	-	56
Ending Unfunded Actuarial Accrued Liability	\$1,200	\$1,190	\$1,268	\$1,413	\$1,308	\$962	\$874	\$932	\$433	\$382
Other Experience Economic and Non-Economic Assumption Changes		(15)	15 16	-	133	(22)	108	_	-	(15) 56

Source: Actuarial Valuations from June 30, 2007 through 2016

<sup>\*</sup> The June 30, 2010 results have been revised to reflect the correct actuarial accrued liability which was overstated in the June 30, 2010 valuation.

# PROBABILITIES OF SEPARATION PRIOR TO RETIREMENT

Rate (%)
Mortality

	Miscel	laneous	Saf	ety
Age	Male	Female	Male	Female
25	0.04%	0.02%	0.04%	0.02%
30	0.04	0.02	0.04	0.03
35	0.07	0.04	0.07	0.05
40	0.10	0.07	0.10	0.08
45	0.14	0.11	0.13	0.12
50	0.20	0.16	0.19	0.19
55	0.34	0.24	0.30	0.30
60	0.58	0.41	0.52	0.51
65	0.98	0.74	0.88	0.93

Note: All Miscellaneous pre-retirement deaths are assumed to be nonservice-connected. For Safety, 50% pre-retirement deaths are assumed to be nonservice-connected and the rest are assumed to be service-connected.

Rate (%)

Disability							
Age	Miscellaneous (1)	Safety (2)					
20	0.00%	0.10%					
25	0.01	0.10					
30	0.03	0.16					
35	0.05	0.26					
40	0.08	0.45					
45	0.16	0.61					
50	0.26	0.80					
55	0.36	1.26					
60	0.52	2.10					

Note: For Miscellaneous, 25% of disabilities are assumed to be service-connected disabilities and the other 75% are assumed to be nonservice-connected disabilities. For Safety, 90% of disabilities are assumed to be service-connected disabilities and the other 10% are assumed to be nonservice-connected disabilities.

# PROBABILITIES OF SEPARATION PRIOR TO RETIREMENT (CONTINUED)

Rate (%)
Withdrawal (<5 Years of Service)

Years of Service	Miscellaneous	Safety
0	13.00%	8.00%
1	8.00	6.00
2	7.00	5.00
3	6.00	4.00
4	5.50	3.00

Note: 75% of the Miscellaneous members and 50% of the Safety members are assumed to elect a withdrawal of contributions upon separation, while the remaining 25% and 50% of Miscellaneous and Safety members, respectively, are assumed to elect a deferred retirement benefit. No withdrawal is assumed after a member is eligible to retire.

Withdrawal (5+ Years of Service)

		/
Age	Miscellaneous	Safety
20	5.00%	2.50%
25	5.00	2.50
30	4.70	2.50
35	4.20	2.20
40	3.40	1.85
45	2.70	1.60
50	2.20	1.50
55	1.85	1.50
60	1.30	1.50
65	1.00	0.00

Note: 50% of the Miscellaneous members and 20% of the Safety members are assumed to elect a withdrawal of contributions upon separation, while the remaining 50% and 80% of Miscellaneous and Safety members, respectively, are assumed to elect a deferred retirement benefit. No withdrawal is assumed after a member is eligible to retire.





# SUMMARY OF STATISTICAL DATA

Issued in May 2004, pronouncement GASB Statement No. 44, *Economic Conditioning Reporting: The Statistical Section* establishes and modifies requirements related to the supplementary information presented in this section of the report.

The pension trust fund is accounted for under the accrual basis of accounting. Information is provided for the last ten years ended June 30, 2016 for the following five objectives: financial trends; revenue capacity; debt capacity; demographic and economic; and operating.

Financial trends are presented on pages 129 to 133. The schedules contain trend information to aid in understanding how the System's financial performance has changed over time.

Revenue capacity is presented on pages 129, 131, and 132. The schedules contain information regarding the contribution amount and rate history for the last ten years.

Demographic and economic information is presented on pages 134 to 138. These schedules offer demographic and economic indicators to enhance understanding of the environment within which the System's financial activities take place. The schedules show the average monthly benefit payments followed by the System membership.

Operating information is presented on pages 139 and 140. These schedules contain pension plan data to assist in understanding how the information in the financial report relates to the pension plan the System administers. This section includes the schedules of principal participating employers and active members.

# SCHEDULE OF ADDITIONS BY SOURCE

(Dollar Amounts Expressed in Thousands)

Year Ended	Employee	Employer	Net Investment	
June 30:	Contributions	Contributions	Income / (Loss)	Total
2016	\$77,494	\$209,020	\$(72,399)	\$214,115
2015	68,143	222,959	158,222	449,324
2014	57,635	210,503	1,107,152	1,375,290
2013	68,242	189,664	785,449	1,043,355
2012	65,690	179,098	(3,414)	241,374
2011	57,151	182,921	1,206,775	1,446,847
2010	52,413	167,142	617,481	837,036
2009	54,623	177,011	(1,318,447)	(1,086,813)
2008	52,142	167,055	(234,086)	(14,889)
2007	42,871	156,805	891,506	1,091,182

Source: Audited Financial Statements from June 30, 2007 through 2016

# SCHEDULE OF DEDUCTIONS BY TYPE

(Dollar Amounts Expressed in Thousands)

_		Benefits	Paid				
				Health			
Year			Retiree	and			
Ended		Survivor	Death	Dental	Administrative		
June 30:	Service*	Benefits	Benefits	Benefits	Expenses	Withdrawals	Total
2016	\$399,690	\$2,443	\$1,223	\$ -	\$6,362	\$2,346	\$412,064
2015	368,788	2,404	1,177	-	5,854	2,288	380,511
2014	341,756	2,116	1,018	-	5,665	2,729	353,284
2013	317,308	2,225	1,295	-	5,719	2,739	329,286
2012	295,598	2,284	882	-	6,288	3,040	308,092
2011	273,510	2,032	619	-	6,571	4,433	287,165
2010	250,553	1,993	546	-	5,908	4,932	263,932
2009	230,005	1,749	622	-	5,980	3,302	241,658
2008	212,406	1,865	621	-	5,866	3,177	223,935
2007	193,823	1,681	492	1	5,818	4,434	206,249

<sup>\*</sup>Amounts reported here include both service retirement benefits and active death benefits.

Source: Audited Financial Statements from June 30, 2007 through 2016 and SCERS Retired Member Pension Payroll Data.

# SCHEDULE OF ADMINISTRATIVE EXPENSES

For the Last Ten Fiscal Years Ended June 30

(Dollar Amounts Expressed in Thousands)

Type of Expenses	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Salaries and Benefits	\$3,506	\$3,445	\$3,300	\$3,284	\$3,530	\$3,755	\$3,215	\$3,184	\$3,130	\$3,352
Professional Fees	1,081	811	786	857	1,146	1,137	719	842	942	629
Rent and Lease Expense	501	456	460	432	458	444	576	603	571	648
Depreciation Expense	34	36	36	36	37	17	5	5	5	5
Equipment Purchases and Maintenance	26	32	21	24	44	35	29	62	41	85
Other Administrative Expenses	1,214	1,074	1,062	1,086	1,073	1,183	1,364	1,284	1,177	1,099
Total	\$6,362	\$5,854	\$5,665	\$5,719	\$6,288	\$6,571	\$5,908	\$5,980	\$5,866	\$5,818

Source: SCERS Annual Budget from June 30, 2007 through 2016

# SCHEDULE OF CHANGES IN FIDUCIARY NET POSITION

For the Last Ten Fiscal Years Ended June 30 (Dollar Amounts Expressed In Thousands)

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Employee contributions	\$77,494	\$68,143	\$57,635	\$68,242	\$65,690	\$57,151	\$52,413	\$54,623	\$52,142	\$42,871
Employer contributions	209,020	222,959	210,503	189,664	179,098	182,921	167,142	177,011	167,054	156,805
Net investment income/(loss)	(72,399)	158,222	1,107,152	785,449	(3,414)	1,206,775	617,481	(1,318,447)	(234,086)	891,506
Total additions	214,115	449,324	1,375,290	1,043,355	241,374	1,446,847	837,036	(1,086,813)	(14,890)	1,091,182
Benefits paid	403,356	372,369	344,890	320,828	298,764	276,161	253,092	232,376	214,891	195,997
Withdrawals	2,346	2,288	2,729	2,739	3,040	4,433	4,932	3,302	3,177	4,434
Administrative expenses	6,362	5,854	5,665	5,719	6,288	6,571	5,908	5,980	6,575	5,818
Total deductions	412,064	380,511	353,284	329,286	308,092	287,165	263,932	241,658	224,643	206,249
Change in net position	(197,949)	68,813	1,022,006	714,069	(66,718)	1,159,682	573,104	(1,328,471)	(239,533)	884,933
Net position, beginning	7,878,814	7,810,001	6,787,995	6,073,926	6,140,644	4,980,962	4,407,858	5,736,329	5,975,862	5,090,929
Net position, ending	\$7,680,865	\$7,878,814	\$7,810,001	\$6,787,995	\$6,073,926	\$6,140,644	\$4,980,962	4,407,858	\$5,736,329	\$5,975,862

Source: Audited Financial Statements from June 30, 2007 through 2016  $\,$ 



# SCHEDULE OF EMPLOYER CONTRIBUTION RATES

	COUNTY*								COURT				SPECIAL DISTRICTS				
Actuarial		Mis	cellane	ous		Safety				Miscellaneous				Miscellaneous			Safety
Valuation Year Ended	Tier 1	Tier 2	Tier 3	Tier 4	Tier 5	Tier 1	Tier 2	Tier 3	Tier 4	Tier 1	Tier 2	Tier 3	Tier 5	Tier 1	Tier 3	Tier 5	Tier 3
6/30/2016	15.83%	13.85%	15.89%	15.01%	14.11%	41.30%	37.44%	36.51%	34.11%	18.16%	16.87%	19.84%	14.08%	26.27%	27.85%	22.19%	N/A
6/30/2015	16.26	15.01	17.41	15.25	14.13	42.11	39.42	37.73	34.40	17.99	16.66	19.83	14.09	25.92	27.76	22.02	N/A
6/30/2014	17.58	16.55	19.24	15.96	14.87	42.59	41.56	39.92	35.13	18.55	17.54	20.65	14.87	26.16	28.26	22.48	N/A
6/30/2013**	22.91	20.71	23.29	17.91	17.14	43.59	41.92	41.06	35.61	22.91	20.71	23.29	17.14	30.00	30.50	24.19	N/A
6/30/2012***	20.83	18.28	21.18	16.33	15.01	41.85	37.00	35.55	29.28	20.83	18.28	21.18	15.01	27.77	28.25	22.03	N/A
6/30/2011****	19.09	16.55	19.36	14.19	N/A	37.19	32.38	29.50	N/A	19.09	16.55	19.36	N/A	25.59	25.90	N/A	57.40
6/30/2010****	18.11	15.63	18.49	N/A	N/A	35.03	30.60	N/A	N/A	18.11	15.63	18.49	N/A	24.45	24.94	N/A	54.42
6/30/2009	18.15	15.75	18.60	N/A	N/A	38.95	34.66	N/A	N/A	18.15	15.75	18.60	N/A	24.58	25.26	N/A	49.86
6/30/2008	15.46	13.07	15.88	N/A	N/A	33.65	29.53	N/A	N/A	15.46	13.07	15.88	N/A	22.08	22.57	N/A	39.25
6/30/2007	15.04	12.58	15.43	N/A	N/A	34.71	30.61	N/A	N/A	15.04	12.58	15.43	N/A	21.98	22.41	N/A	41.15

Source: Actuarial Valuations from June 30, 2007 though 2016

Note: Actuarial Valuations are prepared subsequent to a fiscal year-end and determine rates which pertain to the following fiscal year. For example, the Actuarial Valuation as of June 30, 2016 is used to determine rates for the fiscal year 2017-2018.

<sup>\*</sup> Effective for the June 30, 2012 Actuarial Valuation, County includes County elected officials (Board of Supervisors, Sheriff, District Attorney and Assessor).

<sup>\*\*</sup> Effective July 1, 2014, subsequent to the completion of the actuarial valuation for the year ended June 30, 2013, the County and several bargaining groups entered into agreement for members to pick up an additional portion of the total normal cost in fiscal year 2014-2015. The County employer contribution rates shown have not been adjusted to reflect the members agreeing to pick up an additional portion of the total normal cost.

<sup>\*\*\*</sup> Miscellaneous Tier 5 and Safety Tier 4 plans were established effective January 1, 2013.

<sup>\*\*\*\*</sup> Miscellaneous Tier 4 and Safety Tier 3 plans were established effective January 1, 2012.

<sup>\*\*\*\*\*</sup> Contribution rates for Safety members were revised to adjust for the overstatement of the unfunded actuarial accrued liability (UAAL) contribution rate in the June 30, 2010 valuation.

# SCHEDULE OF BENEFITS PAID AND WITHDRAWALS BY TYPE

For the Last Ten Fiscal Years Ended June 30 (Dollar Amounts Expressed in Thousands)

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Type of Benefit										
Service Retirement Benefits	\$399,690	\$368,788	\$341,756	\$317,308	\$295,598	\$273,062	\$250,192	\$229,659	\$212,061	\$193,376
Survivor Benefits	2,443	2,404	2,116	2,225	2,284	2,032	1,993	1,749	1,865	1,681
Death Benefits-Before Retirement	352	411	312	542	189	448	361	346	345	447
Death Benefits-After Retirement	871	766	706	753	693	619	546	622	621	492
Retiree Health and Dental Insurance										1
Total Benefits Paid	\$403,356	\$372,369	\$344,890	\$320,828	\$298,764	\$276,161	\$253,092	\$232,376	\$214,892	\$195,997
Type of Withdrawal										
Death	\$522	\$320	\$445	\$547	\$365	\$463	\$526	\$601	\$111	\$725
Separation	1,786	1,815	2,211	2,153	2,663	3,898	4,303	2,550	2,940	3,492
Miscellaneous	38	153	73	39	12	72	103	151	126	217
Total Withdrawals	\$2,346	\$2,288	\$2,729	\$2,739	\$3,040	\$4,433	\$4,932	\$3,302	<u>\$3,177</u>	\$4,434

Source: SCERS Retired Member Pension Payroll Data.





# SCHEDULE OF DISTRIBUTION OF RETIRED MEMBERS AND BENEFICIARIES BY TYPE AND BY MONTHLY AMOUNT As of June 30, 2016

			Type of Retirement*						Option Selected**													
Amount of N Benefi	•	Total Number of Retired Members	_1	2	3	4	5	6	7	8	9	10	11	12	13	16	17	Unmodified	1	2	3	4
\$1 -	\$499	826	592	21	4	6	5	90	26	10	_	24		34		3	11	600	70	136	8	12
500 -	999	1,335	932	36	10	-	1	146	76	60	3	22	2	44	-	-	3	1,050	98	152	13	22
1,000 -	1,499	1,383	1,014	67	21	3	4	135	41	47	2	11	1	34	3	-	-	1,148	78	132	15	10
1,500 -	1,999	1,173	856	59	17	27	12	111	25	18	3	9	-	34	2	-	-	983	52	121	11	6
2,000 -	2,499	1,011	776	31	12	47	11	80	8	8	9	11	1	16	1	-	-	864	47	93	4	3
2,500 -	2,999	872	714	3	4	33	13	72	5	3	10	5	-	6	4	-	-	759	30	67	6	10
3,000 -	3,499	714	556	8	3	34	30	52	2	-	9	4	-	10	4	1	1	615	31	58	4	6
3,500 -	3,999	603	480	-	-	39	32	31	-	-	14	1	-	1	5	-	-	525	24	49	2	3
4,000 -	4,499	501	403	2	-	27	19	27	1	-	12	2	-	3	5	-	-	447	16	28	2	8
4,500 -	4,999	441	399	-	-	9	6	16	1	-	6	1	-	1	2	-	-	407	11	21	1	1
5,000 &	over	2,101	1,988	2		40	15	32	2	1	13	3		2	3			1,917	_34	123	15	12
Total		10,960	8,710	229	71	265	148	792	187	147	81	93	4_	185	29	_4_	_15	9,315	491	980	81	93

### \* Type of Retirement:

- 1 Service Retirement
- 2 Nonservice-Connected Disability, age 55 and older
- 3 Nonservice-Connected Disability, under age 55
- 4 Service-Connected Disability ("SCD"), age 55 and older
- 5 Service-Connected Disability, under age 55
- 6 Beneficiary of Service Retiree
- 7 Survivor Death Benefits ("SDB")
- 8 Beneficiary of Nonservice-Connected Disability Retiree
- 9 Beneficiary of Service-Connected Disability Retiree
- 10 Divorce-Receiving Benefits
- 11 Interim Nonservice-Connected Disability Retirement
- 12 Non-Member Receiving Benefits
- 13 Survivor Death Benefits-SCD
- 17 Beneficiary of Divorce-Receiving Benefits

Source: SCERS Retired Member Pension Payroll Data

### \*\* Option Selected:

Unmodified: Qualified service retirement or nonservice-connected disability retirement beneficiary receives 60 percent continuance. Qualified service-connected disability retirement beneficiary receives 100 percent continuance.

The following options reduce the retired member's monthly benefit:

- Option 1 Beneficiary receives lump sum or member's unused contributions.
- Option 2 Beneficiary having an insurable interest in member's life receives 100 percent of member's reduced monthly benefit.
- Option 3 Beneficiary having an insurable interest in member's life receives 50 percent of member's reduced monthly benefit.
- Option 4 Benefits paid to person having an insurable interest in member's life as nominated by member's written designation.

# SCHEDULE OF RETIREE MEMBERS BY TYPE OF BENEFIT

# As of June 30, 2016

### **Miscellaneous Members**

		Monthly Allowances										
	Count	Basic	COL	Total	Average Benefit							
Service Retirement			_									
Unmodified	6,014	\$14,051,039	\$3,293,394	\$17,344,433	\$2,884							
Option 1	376	570,380	157,370	727,750	1,936							
Option 2, 3, & 4	758	1,476,374	265,524	1,741,898	2,298							
Total	7,148	\$16,097,793	\$3,716,288	\$19,814,081	\$2,772							
Non-Service Disability												
Unmodified	251	\$269,329	\$114,626	\$383,955	\$1,530							
Option 1	20	16,672	8,751	25,423	1,271							
Option 2, 3, & 4	16	15,838	3,631	19,469	1,217							
Total	287	\$301,839	\$127,008	\$428,847	\$1,494							
Service Disability												
Unmodified	165	\$280,674	\$140,482	\$421,156	\$2,552							
Option 1	8	12,003	5,293	17,296	2,162							
Option 2, 3, & 4	4	4,434	2,511	6,945	1,736							
Total	177	\$297,111	\$148,286	\$445,397	\$2,516							
Beneficiary	1,176	\$1,067,139	\$687,475	\$1,754,614	\$1,492							
Total Miscellaneous	8,788	\$17,763,882	\$4,679,057	\$22,442,939	\$2,554							

# **Safety Members**

		Mo	nthly Allowance	S	
	Count	Basic	COL	Total	Average Benefit
Service Retirement					
Unmodified	1,402	\$7,286,923	\$1,947,852	\$9,234,775	\$6,587
Option 1	37	133,994	45,539	179,533	4,852
Option 2, 3, & 4	123	555,055	102,592	657,647	5,347
Total	1,562	\$7,975,972	\$2,095,983	\$10,071,955	\$6,448
Non-Service Disability					
Unmodified	13	\$17,583	\$9,704	\$27,287	\$2,099
Option 1	1	850	136	986	986
Option 2, 3, & 4	3	6,009	680	6,689	2,230
Total	17	\$24,442	\$10,520	\$34,962	\$2,057
Service Disability					
Unmodified	218	\$650,019	\$307,162	\$957,181	\$4,391
Option 1	13	33,737	16,450	50,187	3,861
Option 2, 3, & 4	5	9,840	4,800	14,640	2,928
Total	236	\$693,596	\$328,412	\$1,022,008	\$4,331
Beneficiary	357	\$627,598	\$392,649	\$1,020,247	\$2,858
Total Safety	2,172	\$9,321,608	\$2,827,564	\$12,149,172	\$5,594
Total Miscellaneous and Safety	10,960	\$27,085,490	\$7,506,621	\$34,592,111	\$3,156

Source: Actuarial Valuation Report as of June 30, 2016

Note: Refer to page 134 for the description of retirement options.



# SCHEDULE OF AVERAGE BENEFIT PAYMENTS

For the Last Ten Fiscal Years

	Years of Credited Service								
Retirement Effective Date	0-5	5-10	10-15	15-20	20-25	25-30	30+		
7/1/15 - 6/30/16									
Average monthly benefit	\$581	\$1,110	\$1,768	\$2,378	\$4,268	\$5,083	\$6,630		
Average monthly final average salary	\$8,700	\$6,355	\$5,856	\$5,568	\$7,428	\$7,410	\$7,934		
Number of retired members	23	87	118	69	88	94	69		
7/1/14 - 6/30/15									
Average monthly benefit	\$569	\$1,052	\$1,845	\$2,524	\$4,305	\$6,378	\$6,557		
Average monthly final average salary	\$8,340	\$6,184	\$5,967	\$6,047	\$7,236	\$8,574	\$7,768		
Number of retired members	33	74	109	98	89	112	89		
7/1/13 - 6/30/14									
Average monthly benefit	\$488	\$1,216	\$1,558	\$2,583	\$4,490	\$5,190	\$7,239		
Average monthly final average salary	\$7 <b>,</b> 757	\$6,710	\$5,223	\$6,071	\$7,727	\$7,345	\$8,539		
Number of retired members	17	62	128	85	75	77	72		
7/1/12 - 6/30/13									
Average monthly benefit	\$494	\$994	\$1,652	\$2,832	\$3,936	\$5,519	\$6,151		
Average monthly final average salary	\$7,477	\$5,415	\$5,608	\$6,613	\$6,831	\$7,730	\$7,524		
Number of retired members	28	63	128	69	77	73	55		
7/1/11 - 6/30/12									
Average monthly benefit	\$504	\$1,093	\$1,631	\$2,703	\$3,986	\$5,740	\$6,064		
Average monthly final average salary	\$7,652	\$6,041	\$5,545	\$6,279	\$7,059	\$8,120	\$7,246		
Number of retired members	35	77	118	58	102	66	75		
7/1/10 - 6/30/11									
Average monthly benefit	\$461	\$1,017	\$1,500	\$2,580	\$3,620	\$6,026	\$5,920		
Average monthly final average salary	\$6,797	\$5,576	\$5,245	\$6,104	\$6,559	\$8,466	\$7,394		
Number of retired members	21	82	118	69	112	94	80		
7/1/09 - 6/30/10									
Average monthly benefit	\$422	\$992	\$1,623	\$2,501	\$3,239	\$4,789	\$5,714		
Average monthly final average salary	\$6,582	\$5,306	\$5,549	\$6,071	\$6,022	\$7,278	\$6,930		
Number of retired members	30	69	87	78	75	65	75		
7/1/08 - 6/30/09									
	<b>6463</b>	6000	64 727	62.222	64.074	¢c 200	67.227		
Average monthly benefit	\$462	\$900	\$1,727	\$2,232	\$4,074	\$6,298	\$7,227		
Average monthly final average salary Number of retired members	\$6,968 14	\$5,425 52	\$5,697 68	\$5,397 60	\$6,893 58	\$8,437 58	\$8,369 66		
Number of retired members	14	32	00	00	30	30	00		
7/1/07 - 6/30/08									
Average monthly benefit	\$359	\$977	\$1,626	\$2,202	\$3,151	\$5,729	\$6,171		
Average monthly final average salary	\$5,974	\$5,428	\$5,467 	\$5,874	\$5,729	\$7,992	\$7,685		
Number of retired members	25	35	75	56	53	44	52		
7/1/06 - 6/30/07									
Average monthly benefit	\$512	\$874	\$1,536	\$2,341	\$3,228	\$4,756	\$5,652		
Average monthly final average salary	\$6,856	\$4,747	\$5,220	\$5,331	\$5,884	\$6,508	\$6,868		
Number of retired members	27	55	83	71	74	69	86		

Source: SCERS Retired Member Pension Payroll Data

# SCHEDULE OF AVERAGE BENEFIT PAYMENTS

For the Last Ten Fiscal Years

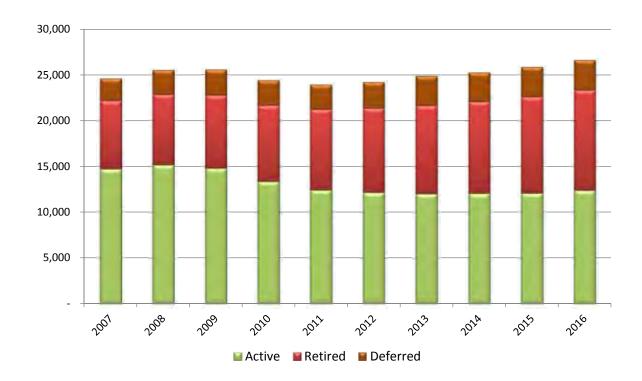
	Years Since Retirement								
As Of	0-5	5-10	10-15	15-20	20-25	25-30	30 +		
6/30/16:									
Average monthly benefit	\$3,398	\$3,550	\$3,560	\$2,626	\$2,623	\$2,175	\$1,963		
Number of retired members	2,946	2,418	2,152	1,181	966	642	625		
6/30/15:									
Average monthly benefit	\$3,409	\$3,456	\$3,371	\$2,616	\$2,532	\$2,098	\$1,818		
Number of retired members	2,933	2,241	1,958	1,250	942	601	616		
6/30/14:									
Average monthly benefit	\$3,240	\$3,392	\$3,177	\$2,503	\$2,493	\$2,026	\$1,709		
Number of retired members	2,809	2,254	1,726	1,199	901	586	574		
6/30/13:									
Average monthly benefit	\$3,272	\$3,412	\$2,603	\$2,400	\$2,438	\$1,902	\$1,676		
Number of retired members	2,635	2,512	1,368	1,123	882	590	524		
6/30/12:									
Average monthly benefit	\$3,237	\$3,355	\$2,352	\$2,449	\$2,142	\$1,805	\$1,643		
Number of retired members	2,468	2,467	1,314	1,140	813	562	475		
6/30/11:									
Average monthly benefit	\$3,209	\$3,173	\$2,336	\$2,400	\$1,936	\$1,728	\$1,594		
Number of retired members	2,417	2,216	1,298	1,110	792	563	425		
6/30/10:									
Average monthly benefit	\$3,150	\$3,022	\$2,343	\$2,318	\$1,911	\$1,704	\$1,351		
Number of retired members	2,206	2,019	1,360	1,058	744	547	412		
6/30/09:									
Average monthly benefit	\$3,133	\$2,886	\$2,309	\$2,322	\$1,884	\$1,590	\$1,276		
Number of retired members	2,247	1,787	1,299	1,012	726	527	370		
6/30/08:									
Average monthly benefit	\$3,197	\$2,199	\$2,214	\$2,250	\$1,751	\$1,501	\$1,226		
Number of retired members	2,582	1,373	1,207	997	730	509	311		
6/30/07:									
Average monthly benefit	\$3,041	\$2,133	\$2,237	\$1,948	\$1,636	\$1,449	\$1,120		
Number of retired members	2,458	1,383	1,226	930	709	495	263		

Source: SCERS Retired Member Pension Payroll Data

# CHANGES IN SYSTEM MEMBERSHIP

Year Ended June	Active	Retired	Deferred	
30:	Members	Members	Members	Total
2016	12,393	10,960	3,301	26,654
2015	12,072	10,541	3,261	25,874
2014	12,049	10,049	3,201	25,299
2013	12,026	9,634	3,249	24,909
2012	12,155	9,239	2,851	24,245
2011	12,434	8,821	2,710	23,965
2010	13,340	8,346	2,740	24,426
2009	14,796	7,968	2,818	25,582
2008	15,180	7,709	2,661	25,550
2007	14,716	7,464	2,437	24,617

# System Membership at a Glance



Source: Actuarial Valuations from June 30, 2007 through 2016

# SCHEDULE OF PRINCIPAL PARTICIPATING EMPLOYERS AND ACTIVE MEMBERS - SUMMARY

Current Fiscal Year and Nine Fiscal Years Ago

		2016			2007	
Participating Employer	Covered Employees	Rank	Percent of Total System	Covered Employees	Rank	Percent of Total System
County of Sacramento	11,112	1	89.66%	13,199	1	89.69%
Superior Court	651	2	5.25	814	2	5.53
S.E.T.A	548	3	4.42	598	3	4.07
Carmichael Recreation and Park District	20	4	0.17	27	4	0.18
Sunrise Recreation and Park District	19	5	0.15	24	5	0.16
Orangevale Recreation and Park District	13	6	0.10	15	6	0.10
Mission Oaks Recreation and Park District	11	7	0.09	12	7	0.08
Elected Officials*	8	8	0.07	8	8	0.06
Elk Grove Cosumnes Cemetery District	6	9	0.05	4	11	0.03
Fair Oaks Cemetery District	4	10	0.03	5	10	0.03
Galt-Arno Cemetery District	1	11	0.01	3	12	0.02
Sacramento Metropolitan Fire District	-	12	0.00	6	9	0.04
U.C. Davis Medical Center		12	0.00	1	13	0.01
Total	12,393		100.00%	14,716		100.00%

\*Elected Officials - consisted of Board of Supervisors (5), Assessor (1), District Attorney (1), and Sheriff (1).

Source: SCERS Active Member Data



#### SCHEDULE OF PRINCIPAL PARTICIPATING EMPLOYERS AND ACTIVE MEMBERS - DETAIL

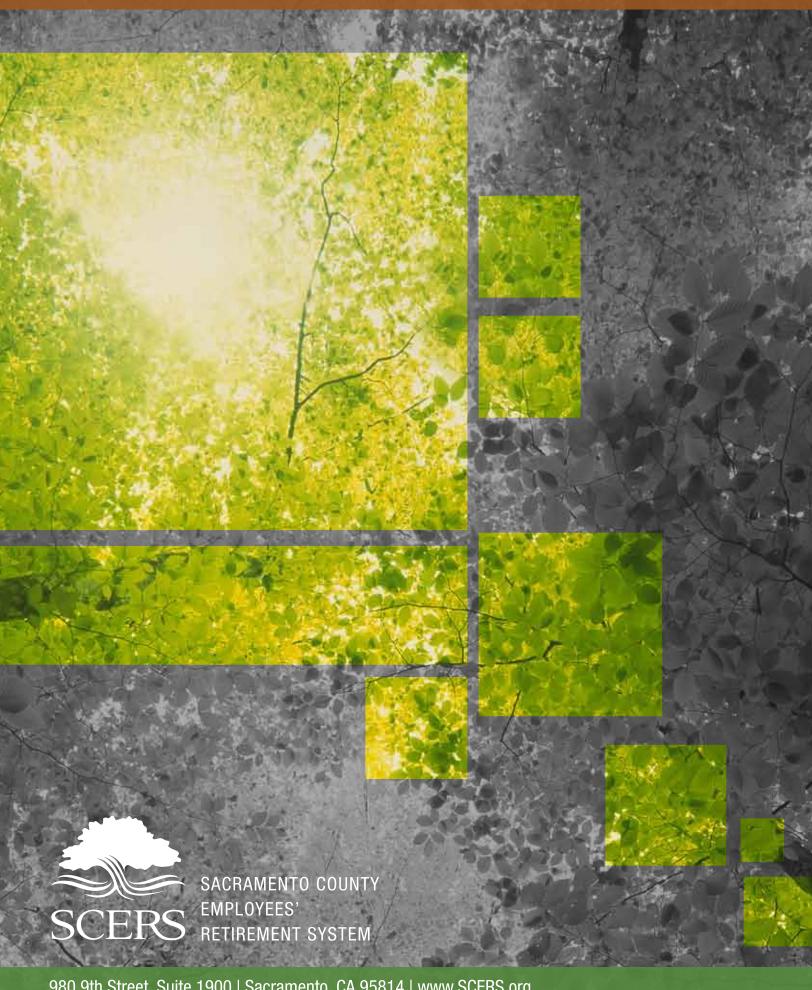
For the Last Ten Fiscal Years Ended June 30

SCERS Member Agency	Plan	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Carmichael Recreation and Park District	Misc.	20	19	21	21	20	22	26	29	24	27
Elk Grove Cosumnes Cemetery District	Misc.	6	4	6	5	5	2	3	4	3	4
Fair Oaks Cemetery District	Misc.	4	4	4	4	4	3	4	4	4	5
Galt-Arno Cemetery District	Misc.	1	1	1	1	1	1	1	3	3	3
Mission Oaks Recreation and Park District	Misc.	11	12	12	12	12	13	14	13	13	12
Orangevale Recreation and Park District	Misc.	13	13	13	15	15	15	16	17	12	15
Sacramento Metropolitan Fire District	Safety	-	-	-	-	-	3	3	4	6	6
S.E.T.A.	Misc.	548	544	547	565	566	568	584	604	597	598
Sunrise Recreation and Park District	Misc.	19	22	22	21	21	23	26	28	28	24
U.C. Davis Medical Center	Misc.	-	-	-	-	1	1	1	1	1	1
Elected Officials*	Misc.	7	7	7	7	7	7	7	7	7	7
Elected Officials*	Safety	1	1	1	1	1	1	1	1	1	1
Total Special District Members	Misc.	629	626	633	651	652	655	682	710	692	696
	Safety	1	1	1	1	1	4	4	5	7	7
Superior Court Members	Misc.	651	631	625	632	698	745	765	807	843	814
Sacramento County Members	Misc.	9,083	8,836	8,827	8,830	8,906	9,121	9,865	10,937	11,190	10,817
	Safety	2,029	1,978	1,963	1,912	1,898	1,909	2,024	2,337	2,448	2,382
Total Members	Misc.	10,363	10,093	10,085	10,113	10,256	10,521	11,312	12,454	12,725	12,327
	Safety	2,030	1,979	1,964	1,913	1,899	1,913	2,028	2,342	2,455	2,389
	Total	12,393	12,072	12,049	12,026	12,155	12,434	13,340	14,796	15,180	14,716

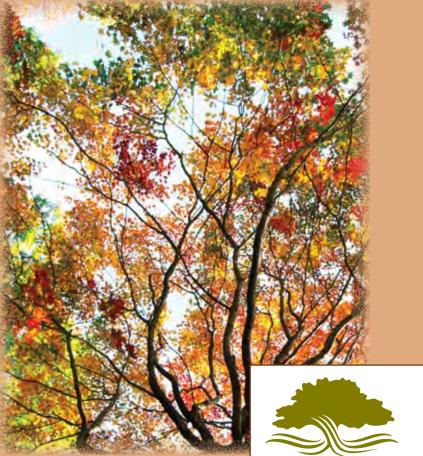
<sup>\*</sup>Elected Officials - consisted of Board of Supervisors (5), Assessor (1), District Attorney (1), who were miscellaneous members, and one Sheriff who was a safety member.

Source: SCERS Active Member Data





## EXHIBIT E INVESTMENT POLICY AND OBJECTIVES



**SCERS** 

SACRAMENTO COUNTY EMPLOYEES' RETIREMENT SYSTEM

## INVESTMENT POLICY & OBJECTIVES

January 17, 2008
As Amended June 18, 2008,
December 18, 2008,
and February 18, 2010



#### **FOREWORD**

The Sacramento County Employees' Retirement System ("SCERS") was created on July 1, 1941, by Sacramento County Ordinance #283 as adopted by the Board of Supervisors on April 30, 1941, pursuant to the County Employees' Retirement Law of 1937. SCERS provides retirement, disability, and death benefits for qualified employees of Sacramento County and eleven participating special districts.

Anine member Board of Retirement (Board) governs SCERS. The Board has sole and exclusive fiduciary responsibility over the assets of the retirement system. The Board has the sole and exclusive responsibility to administer SCERS in a manner that will assure prompt delivery of benefits and related services to the participants and their beneficiaries. The authority of the Board in the above matters is plenary or absolute. See California Constitution at Articles XVI Section 17.

While the Board has the above authority noted above, the organizational structure of SCERS focuses the attention of the Board on governance and policy and not on the management of the system. Thus, the primary responsibility of the Board is strategic in setting the direction of SCERS. This includes enunciation of the mission and setting of goals and objectives.

SCERS' Chief Executive Officer (CEO) has the responsibility for the overall management and administration of the system in accordance with the direction, policy and goals set by the Board. Reporting to the CEO as part of the executive staff is the Chief Investment Officer (CIO). The CIO has primary responsibility in cooperation with the CEO for SCERS' investment program.

An annual actuarial valuation commissioned by the Board determines contributions into the Sacramento County Employees' Retirement Fund (Fund). The growth of the Fund results from a combination of employer and employee contributions and the net return, less the administrative and investment costs, achieved from investing the assets.

#### The Purpose of this Investment Policy and Objectives is to:

- 1. Articulate the Board's views on SCERS' investment objectives and risk tolerance for the investment portfolio.
- 2. Establish performance standards to measure the success of achieving the objectives.
- 3. Formulate the Board's policies and guidelines on: a) asset allocation and diversification of investments; b) identification of permissible investments; c) the structure and framework for the investment portfolio; d) implementing the policies; e) prudently monitoring and evaluating the performance and risk of the investment portfolio; and f) investment manager termination.

#### SCERS INVESTMENT GOALS

1. Provide for Present and Future Benefit Payments - The overall purpose of SCERS is to invest pension assets, solely in the interest of providing benefits to the participants and their beneficiaries, while attempting to minimize the employer contributions and defraying the administrative costs. The investment of contributions and other fund assets in accordance with the investment policy described herein will accomplish this and maintain adequate funding of SCERS' liabilities over time.

The goal of the Board is to design an investment portfolio that will achieve and exceed the actuarial rate of return assumption of 7.875% over a market cycle. The Board will strive to achieve this level of return with a high level of certainty.

- 2. Make Prudent Investments With care, skill, prudence and diligence the Board will strive to produce an investment return based on levels of liquidity and investment risk that are prudent and reasonable under present circumstances. Such circumstances may change over time.
- 3. Diversify the Assets The Board will diversify the investments of the Fund to maximize the investment return with acceptable investment risk.
- 4. Create Reasonable Pension Investments Relative to Other Pension Funds The pension investment program must operate in compliance with all applicable State and Federal laws and regulations concerning the investment of pension assets. SCERS judges its selection of investment vehicles and policies against other private and public pension funds, with special emphasis on comparisons with public funds.
- 5. Establish Policy and Objectives Review Process Annually, SCERS will conduct a formal review of its Investment Policy and Objectives and will develop an updated financial projection at least every five years.

#### RISK VS. RETURN

In general, research has shown that investments that involve greater risks offer a higher expected return. The Board will seek to achieve the performance goals previously outlined with the lowest acceptable level of risk. To achieve the actuarial target earnings goal with a high level of certainty, the Board has adopted a strategic asset allocation plan with an expected annualized passive return of 7.96% over a 10-year period. This asset allocation is expected to have an annualized standard deviation of 11.56%. SCERS will utilize active investment management strategies to add the additional return required to achieve the target earnings rate. The Board strives to seek a balance between the certainties of obtaining a set return over time with the risks inherent in higher return investments.

The annualized passive return for the strategic asset allocation is different from the target earnings rate because the asset allocation capital market assumptions are for a shorter forecast time horizon and the inflation assumption used in the developing the actuarial rate of return is lower.

#### PERFORMANCE OBJECTIVES

SCERS' performance objectives provide the Board with benchmarks to measure the performance of the investment policy and the guidelines. The performance objectives are divided into three components: first level objectives for the Total Fund; second level objectives for each asset class; and, third level objectives for the individual portfolio components. The performance evaluator will incorporate all three levels in its quarterly review of the Fund's performance.

#### The first level: Total Fund (Detailed Below)

The Total Fund has both an absolute and several relative performance objectives.

- 1. Achieve the actuarial rate of interest. The Fund will strive to earn a net investment return equal to or in excess of the assumed annualized actuarial rate of interest of 7.875% over rolling five year periods.
- 2. Relative to the asset allocation targets, generate a return in excess of the passive benchmark portfolio. The Board will establish a passive benchmark index, which reflects SCERS' unique asset allocation policy. Exceeding this benchmark indicates that the investment management structure of the various portfolio components has added value over a passively managed fund with a similar asset mix.
- 3. Exceed the rate of inflation. 5% more than Consumer Price Index, All Items- U.S. City Average, All Urban Consumers (CPI-U) as reported by the Bureau of Labor Statistics.
- 4. Comparison relative to peer group of similar funds. Exceed the median return at a comparable or lower level of risk compared to a similar peer group of public employee pension funds. The investment consultant will provide a comparative analysis of the Fund's comparable risk versus return.

#### FIVE YEAR PERFORMANCE OBJECTIVES

#### **Total Fund**

Annualized Return to Exceed the Assumed Actuarial Rate of Interest:

Return above 7.875%.

2. Return to Exceed the Return of the Passive Benchmark Portfolio:

- 30% x Russell 3000
- 5% x Annualized 91-day T-Bill Rate plus 5%
- 20% x Barclay's Capital Aggregate Bond Index
- 20% x MSCI EAFE Index
- 12% x NCREIF Property Index
- 3% x NAREIT Equity Index
- 5% x Private Equity Benchmark
- 5% x Dow Jones UBS Commodities Index
- 3. Return Relative to Inflation: 5% more than Consumer Price Index, All Items- U.S. City Average, All Urban Consumers (CPI-U) as reported by the Bureau of Labor Statistics.
- 4. Return Relative to Similar Public Employee Retirement Systems:
  - Rank in the top forty percent of the State Association of County Retirement Systems (SACRS) performance comparison.
  - □ Rank below the median portfolio risk in SACRS and other appropriate peer performance comparisons.

#### The second and third level: Asset Classes and Individual Investment Managers

To achieve SCERS' performance objectives the Board has developed second and third level performance objectives to review the details of the investment portfolio. These second and third level performance objectives cover each asset class and each individual manager. These performance objectives are relative to each asset class benchmark; each investment manager specified benchmark and appropriate style peer group. The objectives for each asset class are listed below. The objectives for each investment manager are listed on pages twenty (20) and twenty-one (21).

The asset allocation accounts for at least 90% of the investment return. Differences in the strategic asset allocation will at times make performance comparisons with other plans difficult. Experience has shown that investment managers do not always meet their objectives. Recognizing this, it is important to keep in mind that the attainment of the five-year performance objectives may be very difficult. Meeting the five-year performance objectives is SCERS' performance goal. Performance that is close to the objectives will be of significant financial benefit to SCERS' financial condition. Failure to reach the goal may not necessarily reflect a deficiency in SCERS' investment objectives.

### FIVE YEAR ASSET CLASS INVESTMENT RETURN OBJECTIVES

(Net of Fees)
As a subset of the Total Fund Objective

**EQUITIES**:

Domestic Equity Large Cap Russell 1000 Index plus 100 basis points for active

managers and 60 basis points overall, including the passive

allocation.

Domestic Equity Small Cap Russell 2000 Index plus 150 basis points

Equity Long/Short Hedge Fund 91 Day T-Bill plus 500 basis points

International Equity MSCI EAFE Index plus 100 basis points

Emerging Markets MSCI EMF Index plus 150 basis points

Private Equity S&P 500 plus 200 basis points

FIXED INCOME:

Fixed Income Barclays Capital Aggregate Index plus 70 basis points

REAL ESTATE:

Private Market Core NCREIF Index plus 100 basis points
Private Market Value Added NCREIF Index plus 200 basis points

Public Equity Securities NAREIT Equity Index plus 100 basis points

**OPPORTUNITIES:** 

Opportunities Strategies Dow Jones UBS Commodities Index plus 100 basis points

CASH:

Cash State Street STIF

Strategic Overlay Passive Return of SCERS' Asset Allocation,

excluding the real estate asset class.

The objectives established in the three levels set a high standard of performance for SCERS' investments. The attainment of these objectives is dependent upon the SCERS' matching its asset allocation, and upon SCERS' investment managers generating superior rates of return.

#### RISK CONSTRAINT STATEMENT

#### RISK MEASURED BY VOLATILITY

There are numerous risks inherent in every asset class. The quantitative measurement of most, but not all, of these risks is done by evaluating the volatility of the asset class returns over time. The key is measurement over enough time to pick up some of the long-term risks, which are not apparent on a short-term basis. Volatility is a statistical measure of the frequency and size of deviations from an average return. The typical measure of volatility is standard deviation. One standard deviation is the range that returns will fluctuate within two-thirds or 66% of the time.

#### RISK MEASURED BY FUNDAMENTAL FACTORS

There are risks inherent in various asset classes, especially those that do not trade regularly or are not regularly marked to market, that do not show up in the short-term pricing of assets. These fundamental risks such as credit risk, defaults, interest rate sensitivity, investment duration and economic cycles do show up over longer periods. Many of these risks are qualitative in nature. As such, they are measured by individual perception.

Long-term measurements of price volatility over periods of 20 to 30 years will encompass the greatest percentage of both fundamental, qualitative risks and short-term price volatility. Asset classes and individual investments must be measured over long time periods to attempt to encompass all the various risk factors.

The Board will measure risk by both volatility and fundamental factors.

#### TOTAL FUND RISK OBJECTIVES

#### Standard Deviation Risk

A standard deviation of investment returns over a rolling 5-year period no greater than the Fund's passive benchmark portfolio.

#### Liquidity Risk

No more than 25% of the Fund shall be invested in instruments which are not regularly publicly traded on a daily basis.

#### Maximum Investment

No more than 2.5% of the Fund may be invested in any one security, with the exception of United States Treasury or Agency Obligations, a commingled fund or mutual fund, or a total return swap for an index or other derivative used to replicate an asset class exposure.

#### ASSET ALLOCATION

The decision of how to distribute the Fund assets among broad asset categories of domestic and international equities, private equity, domestic and international fixed income, real estate, hedge funds and opportunities is based upon a number of factors including, but not limited to:

Financial condition of the Fund

Expected long-term capital market outlook . Cash flow requirements

Participant growth

· Actuarial requirements

SCERS' risk tolerance

SCERS has assumed the following long-term capital market returns for the asset allocation model. These assumptions are based on historical long term returns, the forecast economic environment and recommendations from SCERS' External Investment Consultant, Independent Actuary, and Chief Investment Officer.

#### EXPECTED CAPITAL MARKET RETURNS

ASSUMPTIONS: 10 Year Horizon, 2.5% Inflation

Asset Class	Real Rate of Return	Total Return	Expected Risk
Domestic Equity	5.7%	8.2%	18.6%
Domestic Long/Short Hedge Fu	und 5.7%	8.2%	15.1%
International Equity	5.7%	8.2%	19.5%
Private Equity	7.0%	9.5%	28.4%
Domestic Fixed Income	2.8%	5.3%	5.5%
Real Estate	4.7%	7.2%	13.7%
Opportunities Portfolio	2.0%	4.5%	18.0%
Cash	1.2%	3.7%	1.3%

These factors establish the basis for SCERS' long-term strategic asset allocation targets and ranges. Importantly, the long-term strategy includes ranges for each asset category in order to take advantage of market opportunities. The aggregate of the investments in each asset class is intended to match the characteristics of the returns used in the asset allocation model. Deviations from the characteristics represent strategic shifts to add value over these returns.

#### ASSET DIVERSIFICATION

Based upon the SCERS' capital market assumptions and those factors outlined by the Policy Statement, the Board retains an external investment consultant to create an asset allocation model. Based upon the performance objectives and risk constraints, the current SCERS' Asset Allocation Policy is:

#### SCERS' ASSET ALLOCATION POLICY

		RANGE	
ASSET CLASS	TARGET	MINIMUM	MAXIMUM
DOMESTIC EQUITY	30.0%	27.0%	33.0%
CORE Index	10.0%	9.0%	11.0%
CORE Enhanced Index	3.0%	2.4%	3.6%
CORE Active Short Extension	3.0%	2.4%	3.6%
Value	7.0%	6.3%	7.7%
Large	4.0%	3.2%	4.8%
Small	3.0%	2.4%	.3.6%
Growth	7.0%	6.3%	7.7%
Large	4.0%	3.2%	4.8%
Small	3.0%	2.4%	3.6%
LONG/SHORT HEDGE FUND	5.0%	4.5%	5.5%
PRIVATE EQUITY	5.0%	4.5%	5.5%
INTERNATIONAL EQUITY	20.0%	18.0%	22.0%
MSCI EAFE Developed Markets	13.0%	11.7%	14.3%
Small Cap S&P/Citibank EMI Index	2.0%	1.6%	2.4%
Emerging Markets	5.0%	4.0%	6.0%
FIXED INOME	20.0%	18.0%	22.0%
Enhanced Index	6.7%	6.0%	7.4%
Active Core Plus	13.3%	12.0%	14.6%
REAL ESTATE	15.0%	13.5%	16.5%
Private Market Core	9.0%	7.2%	10.8%
Private Market Value Added	3.0%	1.5%	4.5%
Public Equity Real Estate Securities	3.0%	1.5%	4.5%
OPPORTUNITIES	5.0%	4.5%	5.5%
CASH	0.0%	0.0%	2.0%

The range for each asset class is set to provide strict adherence to the asset allocation policy within optimum variances. The range for each individual style is wider because of the normal volatility within any given asset class. The maximum and minimum ranges do not add up to the maximum and minimum for the asset class because of the wider ranges for each style, Maintaining the assets within the asset class ranges is critical to the Fund's ability to meet its performance objectives.

#### PERMISSIBLE INVESMENTS

Listed below are the investment vehicles specifically permitted under this Statement of Investment Policy and Objectives for separately managed accounts. They are categorized as equity, fixed income, real estate and derivatives to indicate how they are classified for purposes of the asset class structure guidelines in the following section. Unless given authorization in writing, managers are allowed to invest only in the investment vehicles listed below for the asset class for which they have been hired.

#### **Equities**

Investments include publicly-traded common stocks, preferred stocks, covered stock option calls, equity securities of foreign companies traded on registered U.S. stock exchanges, NASDAQ, or non-US stock exchanges and convertible securities (preferred or corporate bonds) and private equity funds, and private equity funds of funds.

#### **Fixed Income**

Investments include the full universe of fixed income instruments within different sectors of the U.S. and international bond markets including US government and agency debt, Treasury Inflation-Protected Securities, corporate debt instruments, mortgage and other asset-backed securities, municipal debt, high yield bonds, convertible debentures, certificates of deposit, non-dollar debt securities and fixed income mutual funds consisting primarily of the permissible investments. Also included in fixed income are privately placed debt instruments, and debt funds and funds of funds.

#### Real Estate

Investments include private market participation in commercial, industrial and residential real estate properties. These investments may comprise both open end commingled funds, closed end commingled funds and separate direct ownership accounts. Investments may also include publicly traded real estate equity securities including issues of Real Estate Investment Trusts (REIT) or Real Estate Operating Companies (REOC).

#### **Derivatives**

Investment managers may be permitted through individual investment guidelines to use derivative instruments to control or manage portfolio risk. Derivatives are contracts or securities whose returns are derived from the returns of other securities, indices or derivatives. This definition includes collateralized mortgage obligations, futures, forwards, options, options on futures, swaps and swaptions. Managers may not utilize derivatives for speculative purposes. In no circumstances can derivatives lever any positions in SCERS portfolio, except as expressly authorized in writing. No derivatives positions can be established that create portfolio characteristics outside of current portfolio guidelines. Examples of appropriate applications of derivative strategies include hedging interest rate and currency risk, and maintaining exposure to a desired asset class while effecting asset allocation changes.

#### Other Financial Instruments

Other financial instruments include investments in currency, currency derivatives, commodities and commodities futures as permitted in individual investment manager guidelines.

#### ASSET CLASS STRUCTURE AND STYLE

#### **DOMESTIC EQUITIES**

33.3% Passive Management / 66.7% Active Management

SCERS' domestic equities emphasize broad security and style diversification. The portfolio is equally weighted between the Value and Growth style. The aggregate portfolio will be designed to be neutral in capitalization and style to the characteristics utilized by the Asset Allocation Model. The goal of the active managers is to outperform their respective market segments and as a group exceed the passive benchmark portfolio.

U.S. Equity Benchmark Index -- The Russell 3000 Index tracks the 3000 largest U.S. equities. This segment is a broad passive index of publicly traded stocks representing 98% of the investable U.S. equity market.

Growth Stocks --This segment is characterized by higher risk, lower yield, and higher P/E ratios. Growth stock portfolios display above-market performance in rising markets. Over the course of a market cycle, the active managers will exceed the return of their passive segment of the market. Smaller capitalized stocks will exhibit even higher rates of return. The growth stocks are divided into 57.1% large to mid cap and 42.9% small capitalization companies.

Value/Defensive --This segment attempts to outperform the market in down and flat markets, while obtaining market or lagging market performance in "up" markets. Over the course of a market cycle the active managers will exceed the return of their passive segment of the market. Value/defensive portfolios are usually characterized by Price to Book ratios and P/E ratios below the Russell 1000 Index for large cap stocks and below the Russell 2000 Index for small cap stocks and by dividend yields above the Russell 1000 Index for large cap stocks and above the Russell 2000 Index for small cap stocks. The value stocks are divided into 57.1% large to mid cap and 42.9% small capitalization companies.

#### **EQUITY LONG/SHORT HEDGE FUNDS**

100% Fund of Hedge Funds

This category of investment is intended to diversify SCERS domestic equity investment portfolio and improve overall portfolio risk/return characteristics. These investments will be correlated to the domestic equity markets at a ratio of .4 or less and are expected to provide downside protection in negative equity markets. The portfolios will employ strategies with a long bias in the range of 30-50% and with gross leverage of less than 2x at the portfolio level.

#### PRIVATE EQUITY

100% Active Management

This category of investment includes limited partnerships, funds and funds of funds that invest in domestic and international private venture capital, mezzanine capital, buyouts and distressed debt.

#### INTERNATIONAL EQUITY

100% Active Management

This category emphasizes diversification, seeking to attain net returns in excess of international index returns, which are not highly correlated to other assets in the portfolio, thereby reducing the SCERS' overall risk. The exposure to emerging markets creates added return and diversification from other assets increasing expected investment return and reducing risk.

International Equity Benchmark Indexes -- SCERS' utilizes the Morgan Stanley EAFE Indices for developed countries and the MSCI EMF Index for emerging markets. The emerging markets are 25% of the international equity allocation.

Active International Equity -- These investments will be allocated between the regions, countries, developed markets and emerging markets consistent with the managers' assignment. The determination of the allocations is at the discretion of the managers but regional weightings should vary no more than 20% from the Benchmark weights. Managers can actively hedge the currency exposure at any time.

#### **FIXED INCOME**

33.3% Enhanced Index Management / 66.7% Active Core Plus Management

This category includes actively managed investments in U.S. treasury and agency securities, corporate bonds, mortgage-backed and asset-backed securities, non-dollar denominated sovereign debt and corporate debt and fixed income derivatives. The active portion is split between two core managers, to provide an asset class duration similar to the benchmark index. The use of a twenty percent or less exposure to Non-Dollar bonds and high yield debt increases the expected return and the diversification of the portfolio.

Risk Control - The aggregate fixed income portfolio will have a duration which is +/- 20% of the duration of the Fixed Income Index, and an average minimum credit quality of A-, as determined by a major rating agency, with a return in excess of the index used by the Asset Allocation Model.

Fixed Income Enhanced Index - The Barclays Capital Aggregate Bond Index, which represents a broad passive holding of all segments of rated U.S. fixed income is enhanced by varying the portfolio characteristics for duration, allocation to sectors and credit quality of the holdings in comparison to the benchmark.

Active Core Plus Fixed Income - The active Core core plus will have a duration that will range within 50% plus or minus the duration of the index. Also, the portfolio will have a minimum average credit quality of A/A. The active core plus portfolio can invest up to 20% un-hedged in Non-Dollar bonds and 20% in high yield or below investment grade debt.

#### **REAL ESTATE**

100% Active Management

This segment is intended to provide diversification from SCERS' holdings in equities and fixed income. Some of these investments are not marked to market each day and are not highly correlated to any of the other assets in the portfolio. In addition, some of these investments are very illiquid in nature. As such, the Board will establish a limit on the total allocation to the asset class. A portion of these investments are privately placed and their value is based upon an independent evaluation at regular intervals until actually sold.

Real Estate Private Market -- The majority of the real estate allocation will be held in private placements, which entail equity participation in commercial, residential and industrial real estate properties. These investments may comprise both open end commingled funds, closed end commingled funds and separate direct ownership accounts. The NCREIF Property Index represents real estate owned by tax-exempt institutions and held in a fiduciary environment and will be the index against which manager performance is measured.

Real Estate Public Equity Securities -- A portion of the portfolio will be invested in issues of Real Estate Investment Trusts (REIT) or Real Estate Operating Companies (REOC) managed by an experienced real estate securities investment manager. Only equity REIT securities and REOC securities which are broadly classified as institutional quality issues are eligible for inclusion in the portfolio. All securities held in the portfolio should be publicly traded and have sufficient marketability to permit prompt, orderly liquidation under normal circumstances. The NAREIT Equity Index will be the benchmark against which manager performance is measured.

#### **OPPORTUNITIES**

This segment includes a mix of investment securities that offer good risk/adjusted investment returns and are expected to have a low correlation with SCERS' public equity and debt investments. Investments which may be included in this asset class are commodities and commodity futures, Treasury Inflation Protected Securities (TIPS), timber or agriculture land, real return strategies, direct private equity, debt securities and other unique strategies. Investments will be assigned to this asset class based on the recommendation of the CIO and the Investment Consultant.

#### STRATEGIC OVERLAY

This investment strategy utilizes SCERS available cash to replicate the target asset allocation on a periodic basis for the purpose of assuring compliance with SCERS' Asset Allocation, excluding the real estate asset class. In addition, at least monthly, the Manager will overlay a replication of SCERS' Asset Allocation to rebalance the total portfolio, utilizing the Permissible Investment or other investments authorized in writing in the Manager's investment management guidelines.

The strategy is expected to reduce the drag of excess cash on total portfolio investment return and to reduce tracking error with SCERS Asset Allocation. The performance objective is to provide 10-25 basis points in annualized return to the SCERS Portfolio.

#### **IMPLEMENTATION**

#### IMPLEMENTATION OBJECTIVES

The CIO will establish procedures to ensure consistent operational compliance with Board policies and the efficient handling of investment duties.

#### PERIODIC REVIEW OF ASSET ALLOCATION POLICY

With the input from the Investment Consultant and the Actuary, SCERS will review the appropriateness of its asset allocation targets and ranges in light of changes in SCERS' liabilities and general market conditions. Such review, including an updated projection of assets and liabilities, shall be conducted at least every five years. The Chief Investment Officer will review the actual versus target Asset Allocation each quarter and provide a report to the Board indicating differences.

#### REBALANCING THE ASSET ALLOCATION

The Strategic Overlay Manager (Manager) under the supervision of the Chief Investment Officer will monitor the overall asset allocation to assure compliance with the target exposure to the asset classes and related target weights as defined by the SCERS' Asset Allocation, excluding the real estate asset class. At least monthly the Manager will overlay a replication of SCERS' Asset Allocation target exposure to the asset classes and related target weights utilizing the permissible investments approved in the Manager's investment management guidelines and objectives for the strategic overlay assignment.

The CIO will re-balance the asset allocation to the target ranges at least annually or at any time the allocations go outside the minimum and maximum ranges on page nine (9). Income and dividends are withdrawn from the Investment Managers' accounts each quarter except for trusts, commingled funds and public real estate portfolios. This cash flow and the net contribution cash flow will be used first to adjust the asset allocation. Any additional re-balancing required will be accomplished by shifting assets from one asset class to another. The CIO will consider transaction costs and the illiquidity of some asset classes when making the re-balancing decision. Given the volatility of the capital markets, constant minor adjustments will be avoided to reduce excessive turnover and transaction costs. The goal will be to re-balance to each asset allocation target when actual allocations are outside the policy range. Any re-allocation of assets between asset classes will be reported to the Board as part of the quarterly asset allocation report.

The Board has established certain style balances and risk controls within each asset class. The CIO will monitor the structure within each asset class to maintain the intended structure. The CIO, in consultation with the Investment Consultant, will shift assets between investment managers within an asset class to maintain the Board directed style balances and risk controls. After any transfer between investment managers, the Chief Investment Officer will notify the Board at its next available meeting.

The procedure for rebalancing is outlined below:

At least annually or when the asset allocation is outside the policy target range the CIO will, in consultation with the Strategic Overlay Manager:

- 1. Rebalance each Asset Class, which exceeds or is below the range.
- 2. Fully allocate the balance of uncommitted cash.
- 3. Utilize the Fund's cash flow as the first source of funds for re-balancing.
- 4. The final source will be shifts among asset classes.

At least semi-annually the Chief Investment Officer, in consultation with the Strategic Overlay Manager, will review the allocation of assets to individual investment managers and if determined to be necessary will:

- 1. Rebalance within each asset class to the Board approved style tilts and risk controls.
- 2. Rebalance any individual Investment Manager that exceeds their range.
- 3. Report any shift of assets between investment managers to the Board at its next meeting.

#### **INVESTMENT MANAGER AGREEMENTS**

SCERS will use SCERS' standard investment management agreements, unless business practice requires a specialized contractual agreement. The manager will be a Registered Investment Advisor under the 1940 Investment Act, unless exempt from registration as a bank, and must agree to be a fiduciary. The contract will detail the fee schedule, the investment guidelines and the portfolio restrictions.

#### INVESTMENT COST CONTROL

Annually the CIO shall present to the Board a review all the investment costs of SCERS.

#### INVESTMENT MANAGER REPORTING

To assist SCERS in maintaining adequate and accurate accounting for the assets of the fund, and to provide for the monitoring of investment managers' portfolios for compliance with investment guidelines and restrictions, the managers will be required to reconcile their investment holdings, transaction activity and income with SCERS' custodian bank on a monthly basis. Such reconciliation shall be provided to the custodian and SCERS in writing and be prepared in accordance with SCERS' standard reporting format. Any change in the report format will be provided to the manager in writing before being implemented

#### PERFORMANCE REVIEW

The CIO, with assistance from the external investment consultant, will prepare an investment performance report to the Board on a quarterly basis. Performance will be measured for the total portfolio and individual components including equities, hedge funds, fixed income, real estate and opportunities portfolios, as set forth on page six (6). In addition, the performance of each component will be broken down into individual portfolios, as set forth on pages twenty (20) and twenty-one (21).

Comparisons will be made against market indices defined in this document. A variance from the stated performance objective will be calculated each quarter. Additionally, each individual portfolio's actual investments will be monitored against its assigned investment style to determine whether the investment manager is adhering to it.

The quarterly investment performance report will compare the total fund, each asset class and individual portfolio return to appropriate market indices and a representative peer group of similar funds or similar style investment managers. The report will note significant changes in the attribution of investment manager performance.

Every six months, the CIO with the assistance of the investment consultant will provide the Board with a review of one of the four major asset categories of the total investment portfolio in detail. Therefore, during a two-year period the CIO and the investment consultant will conduct a detailed review of each of the four asset categories in which SCERS' invests.

#### INVESTMENT ACTIVITY COMPLIANCE AND INVESTMENT MANAGER MONITORING

Individual investment managers will be continually monitored on performance and adherence to the firm's philosophy, process, style, and the terms and conditions of the investment management agreement. In addition, the investment managers' organization and operations will be qualitatively monitored on a continual basis.

The CIO will prepare a monthly investment activity and compliance report. The report will note individual investment manager statistical compliance to their investment guidelines, objectives and portfolio restrictions. The CIO will review the investment manager purchases and sales for each month, and note in the report any deviations from the investment guidelines and restrictions, as outlined by the investment manager agreement, or significant changes in:

portfolio composition	sector weights
portfolio turnover	general trading activity
changes in market value	changes in cash position

Quarterly, the CIO will review the performance characteristics and the dispersion of the investment managers' returns within the investment style and the portfolio managers. Annually, the CIO will request and review the Investment Manager ADV Part II form and inform the Board of significant changes in the firm or apparent conflicts of interest.

#### INVESTMENT MANAGER WATCH LIST

The Board has delegated the ongoing monitoring of investment manager performance and the contractual relationship to the CIO and the Investment Consultant. From time to time, when in the opinion of the CIO's and Investment Consultant a significant or material adverse event occurs, an Investment Manager will be placed on a "Watch List".

Reasons for an investment manager to be placed on the "Watch List" include:

- Persistent underperformance of specified benchmarks or peer groups;
- a significant change in the firms ownership and/or structure;
- loss of one or more key personnel;
- significant loss of assets under management and loss of clients;
- shifts in the firm's investment philosophy or process;
- · persistent lack of responsiveness to SCERS requests;
- regulatory investigations;
- recurring violations of the Investment Policy, investment guidelines or instructions;
- any other issue or situation of which the staff, investment consultant and/or Board become aware this deemed material.

If an investment manager is placed on the "Watch List" the CIO will notify the investment manager in writing that it has been placed on the "Watch List", an explanation of the adverse event resulting in the placement of the investment manager on the "Watch List" and informing the investment manager of what the investment manager needs to do to be removed from the "Watch List".

The placement of an Investment Manager on the "Watch List" will be reported to the Board at the next regular Board meeting along with an explanation of the adverse event resulting in the placement of the investment manager on the "Watch List", conditions needing to be met or improvement required to remove a investment manager from the "Watch List" and an indication of the length of time for the conditions to be met or improvement to occur for the "Watch List" status to be removed or for consideration that a investment manager be terminated.

At least quarterly, and whenever the Board deems it appropriate, the CIO and the Investment Consultant will prepare a report to the Board on the investment manager's on the "Watch List" and the progress being made on improving performance or correcting other non-performance related concerns. The report will include a recommendation by the CIO and the Investment Consultant on whether the investment manager should be removed from the "Watch List", continue on the "Watch List" or be terminated.

By being placed on the "Watch List", the investment manager will be under close review by the CIO, the investment consultant and the Board. The purpose of the "Watch List" is to formally notify the investment manager of SCERS' concerns. The CIO and the investment consultant will contact the investment manager to address the events resulting in the investment manager's being place on the "Watch List" and the CIO and the investment consultant may require the investment manager to meet with them or visit the investment manager's offices. The Board may request the investment manager appear in person before the Board before acting on a recommendation from the CIO and investment consultant for an investment manager to be terminated.

#### Performance

Investment manager performance is measured against their respective portfolio benchmark and relative to a peer group of similar style investment managers. Over any rolling three year and five year periods the investment manager is expected to generate an annualized net return in excess of the portfolio benchmark and rank in the top 40th percentile for their style peer group. Significant deviations from the performance objective, even over shorter time periods, will place the investment manager under closer observation, called the "Watch List".

When an investment manager's annualized portfolio investment performance for two consecutive quarters for trailing three year and five year periods is below the investment manager's portfolio benchmark and the investment manager's ranking is below the 40<sup>th</sup> percentile for a peer group of similar style investment managers the investment manager will be placed on the "Watch List". The portfolio performance benchmarks are included at the end of the Investment Policy and Objectives in the table entitled Performance Objectives for Individual Portfolio Components and is included in the attached amendment.

An investment manager may also be placed on the "Watch List" for poor performance over shorter time periods. If an investment manager's portfolio performance for the trailing one year period is more than twenty-five percent below the portfolio benchmark (.25 x the portfolio return) and the investment manager's peer ranking is below the 75<sup>th</sup> percentile for two consecutive quarters the investment manager will be placed on the "Watch List".

Investment manager investment performance is expected to improve within twelve to eighteen months from the time of being placed on the "Watch List". The CIO and the Investment Consultant will make a recommendation on removing the investment manager from the "Watch List", continuing the "Watch List" status or termination at least once each quarter from the date the investment manager is first placed on the "Watch List".

#### Non-Performance Events

Significant gains or losses of key personnel, assets under management, or clients, non-responsive communication, changes in ownership structure, among other factors, may place the investment manager on the "Watch List". These changes are subjective in nature and will require a review by the CIO and the Investment Consultant and a written report being made to the Board. If any change is found to significantly impact or impair SCERS' objectives, the Investment manager may be immediately terminated by the Board on the recommendation of the CIO and the Investment Consultant. The termination of an investment manager shall be carried out in accordance with the process and procedure set out below.

A "Watch List" designation resulting from a non-performance event should be addressed and any conditions met within six to nine months.

#### INVESTMENT MANAGER TERMINATION

SCERS may immediately terminate a manager for any reason without prior notice. In most cases any action to terminate a manager should be taken by the Board upon the recommendation for termination of the CEO or the CIO, with the concurrence of the investment consultant.

If the CEO, with the concurrence of the Board President, determines that in order to protect the assets of the Retirement Fund immediate or emergency action by the Board is required the SCERS' Board President shall call a Special Board meeting. The Special Board meeting shall be called in compliance with legal requirements governing open meetings and notice requirements.

If the CEO and the CIO, or one such officer if the second is unavailable, determine, in consultation with the investment consultant and the General Counsel, and with the concurrence of the Board President or one or more Vice-Presidents if the President is not available, that: (1) it is necessary to immediately terminate an investment manager in order to protect the assets under the control of the investment manager; (2) it is not feasible to convene a meeting of the Retirement Board for that purpose in a timely manner; and (3) delay could result in detrimental impact to SCERS' assets or interests, the CEO or the CIO may terminate the agreement with the investment manager. The CEO or the CIO shall immediately report such termination to the Board, along with a report of the circumstances that prompted such action.

Whenever the CEO or the CIO exercise the authority to terminate an agreement with an investment manager as provided above, he or she may also take whatever actions he or she may determine, in consultation with the investment consultant and the General Counsel, and with the concurrence of the Board President or one or more Vice-Presidents if the President is not available, are reasonable and necessary to transition the assets under the control of the investment manager to alternate management, including, without limitation: (1) temporarily assigning the assets to another existing contracted investment manager; (2) identifying and engaging an alternate investment manager to manage the assets until a permanent replacement for the terminated manager can be engaged; or (3) contracting for the services of a transition manager to facilitate an efficient and cost effective transition of the assets between the former and interim manager. The CEO, or in his or her absence, the CIO, may execute any and all agreements reasonably necessary to facilitate an orderly and efficient transition of the affected assets, so that they will be managed and protected until they are assigned to one or more alternate investment managers as determined by the Board. The CEO, or in his or her absence the CIO, shall immediately report any and all steps taken to transition the assets and to protect the interests of SCERS to the Board.

#### DELEGATION OF AUTHORITY TO MODIFY EXISTING INVESTMENTS

The Members of the Board have a fiduciary responsibility to manage the investment of the assets of the Retirement Funds with the care, skill, prudence and diligence under the circumstances prevailing that a prudent person acting in a like capacity would use. In most cases, any action to modify the terms and conditions of an existing investment should be taken by the Board itself upon recommendation of the CEO or CIO, with the concurrence of the investment consultant. However, changes in prevailing circumstances may require that a prudent person act more quickly than the Board could act to modify the terms and conditions of an existing investment of assets in order to protect the assets. In those circumstances the Board has determined that it may be prudent, reasonable and necessary to delegate authority to take action to modify an existing investment as provided below.

If the CEO, with the concurrence of the Board President, or a Vice-President if the President is not available, determines that to protect the assets of the Retirement Funds emergency action is required to modify the terms and conditions of an existing investment between regular Board meetings, the SCERS' Board President or Vice-President shall call a Special Board meeting, in compliance with legal requirements governing open meetings and notice requirements. However, if the CEO and CIO, or one such officer if the second is unavailable, determine in consultation with the investment consultant and the General Counsel, and with the concurrence of the Board President or one or more Vice-

Presidents if the President is unavailable, that it would not be prudent and feasible to call a Special Board meeting because immediate action is required, and that delay could result in detrimental impact to SCERS' assets or interests, the CEO and the CIO, or one such officer if the second is unavailable, may immediately take any action deemed to be prudent, reasonable and necessary to best protect SCERS' assets or interests, including but not limited to, modification of the terms and conditions of an existing investment in compliance with the following procedures:

- 1. As to any Modification of an Investment Involving No More Than Two Percent of the Market Value of the Retirement Fund
  - a. Any action may only be taken with the concurrence of the President, or a Vice-President if the President is not available.
  - b. The CEO or CIO shall immediately report the action to the Board, along with a report of the circumstances that prompted such action.
- 2. As to any Modification of an Investment Involving More than Two Percent of the Market Value of the Retirement Fund
  - a. Any action may only be taken with the concurrence of a majority of the President and the two Vice-Presidents, or any other combination of Trustees that may be designated by the Board for that purpose, provided that any combination must consist of less than a majority of the Board.
  - b. The CEO or CIO shall immediately report the action to the Board, along with a report of the circumstances that prompted the action and the required concurrence of the designated Trustees.

The CEO, or in his or her absence, the CIO, may execute any and all agreements and documents on behalf of SCERS as may be reasonably necessary to implement any modification of an existing investment as authorized above.

### PERFORMANCE OBJECTIVES FOR INDIVIDUAL PORTFOLIO COMPONENTS

#### DOMESTIC EQUITY (80% large to mid and 20% small)

Large Cap Core Index - (33.3%)	Return equal to Russell 1000 Index
	or other comparable index, net of fees.

Enhanced Index - (10.0%) Return equal to Russell 1000 Index,

or other comparable index plus .50%, net of fees.

Large Cap Short Extension - (10.0%) Return equal to Russell 1000 Index,

or other comparable index plus 1%, net of fees.

Large Cap – Growth - (13.3%) Return equal to Russell 1000 Growth Index

or other comparable index plus 1%, net of fees.

Small Cap – Growth - (10.0%) Return equal to Russell 2000 Growth Index

or other comparable index plus 1.5%, net of fees.

Large Cap – Value - (13.3%) Return equal to Russell 1000 Value Index

or other comparable index plus 1%, net of fees.

Small Cap –Value - (10.0%) Return equal to Russell 2000 Value Index

or other comparable index plus 1.5%, net of fees.

#### INTERNATIONAL EQUITY (75% Developed and 25% Emerging Markets)

Developed Markets - (86.7% large 13.3% small)

Large - Value - (20.0%) Return equal to MSCI EAFE Value Index plus 1%,

net of fees.

Large - Core - (25.0%) Return Equal to MSCI EAFE Index plus 1%, net

of fee

Large – Growth – (20.0%) Return equal to MSCI EAFE Growth Index plus

1%, net of fees.

Small Cap – (10.0%) Return equal to MSCI EAFE Small Cap Index

or other comparable index plus 1.5%, net of fees.

Emerging Markets - (25.0%)

Emerging Markets Growth Return equal to the MSCI EMF Index plus 1.5%,

net of fees.

(Manager Objectives Continued on the next page)

#### PERFORMANCE OBJECTIVES FOR INDIVIDUAL PORTFOLIO COMPONENTS (continued)

#### PRIVATE EQUITY

100% of the asset class is allocated to private equity managers

Return is equal to S&P 500 plus 200 basis points, net of fees.

#### FIXED INCOME

Enhanced Index - (33.3%)

Enhanced Lehman Aggregate Return equal to Barclays Capital Aggregate Bond Index plus 0.25%, net of fees.

Active Core Plus - (66.7%)

Return equal to Barclays Capital Aggregate
Bond Index plus 0.7%, net of fees.

#### **REAL ESTATE**

Private Market - (80% of asset class)

Core Funds or Separate Accounts

Return equal to the NCREIF plus 1.0%, net of fees.

Value Added Funds

Return equal to the NCREIF plus 2.0%, net of fees.

Public Equity – (20% of asset class) Separate Accounts Return equal to the NAREIT plus 1.0%, net of fees.

#### EQUITY LONG/SHORT HEDGE FUNDS

100% of the asset class is allocated to equity long/short fund of funds managers

Return is equal to the annualized 91-day T-Bill Rate plus 5.0%, net of fees.

#### **OPPORTUNITIES**

This segment includes a mix of investments that offer good risk/adjusted returns and have a low correlation with SCERS' public equity and debt investments, such as commodities

Return is equal to Dow Jones UBS Commodities Index plus 100 basis points, net of fees.

#### STRATEGIC CASH OVERLAY

Daily available cash is to be invested permissible investments as authorized by this Policy excluding real estate. Passive Return of SCERS' Asset Allocation, excluding the real estate class.



#### **EXHIBIT F**

# MINIMUM AUDIT REQUIREMENTS AND REPORTING GUIDELINES FOR CALIFORNIA RETIREMENT SYSTEMS

# STATE OF CALIFORNIA OFFICE OF THE CONTROLLER



MINIMUM AUDIT REQUIREMENTS

AND REPORTING GUIDELINES

FOR

PUBLIC RETIREMENT SYSTEMS

#### INTRODUCTION

The following audit requirements are not intended to be a comprehensive audit program or check list of things to be completed during a retirement system audit. This is intended to include only the minimum requirements which the State Controller prescribes in conjunction with implementing Sections 7501-7504 of the Government Code.

The county auditor, certified public accountant or public accountant undertaking an audit of a public retirement system should:

- 1. Have sufficient knowledge and training to enable him to comply with generally accepted auditing standards.
- 2. Have an adequate knowledge of government accounting.
- 3. Have or acquire sufficient knowledge of pension accounting and actuarial science.

#### **MINIMUM AUDIT REQUIREMENTS**

The audit shall be made in accordance with generally accepted auditing standards. In meeting these standards, the following standards and procedures, although not all inclusive, should be considered:

- A proper study and evaluation of the existing internal control and the financial organizational structure should be made. The purpose of the study is to decide how much the auditor can rely on internal control. Furthermore, it is used as a basis for determining the nature, extent, and timing of the audit tests to be applied in the examination of the financial statements.
- 2. Sufficient competent evidential matter is to be obtained through inspection, observation, inquiries, and confirmations to afford a reasonable basis for an opinion regarding the financial statements under examination. If the internal control is so deficient that an auditor must qualify his opinion in this regard, the reason for this qualification must be set forth in the audit report.
- 3. The auditor should review the regulations applicable to the transactions of the retirement system. Should there be indications that the retirement system may have failed to comply with such legal requirements, the transactions should be referred to proper legal counsel for interpretation of applicable law. Noncompliance, if so determined, should be commented upon in the report and the auditor's opinion should be qualified or disclaimed if necessary.
- 4. A review should be made to see if the report of financial transactions to the State Controller as filed agrees with the official records of the system for the period covered by the audit.

### MINIMUM AUDIT REQUIREMENTS (Continued)

- 5. A review should be made of the previous audit report workpapers and program if available.
- 6. The auditor should ascertain the basis of accounting, that is: cash, accrual or modified accrual. The accrual basis of accounting should be employed to provide a fair and fully disclosed financial position for the retirement system.
- 7. The auditor should obtain confirmations from depositories for (1) all bank accounts, time certificates or savings and loan accounts, and (2) collateral securing such accounts, if applicable. Collateral should also be examined or confirmed with the depository holding the collateral as trustee. The auditor should determine the adequacy and propriety of the collateral pledged.
- 8. The collections and recording of all ascertainable revenues, such as employee retirement contributions and dividends from investments, should be tested during the period under audit. The test should be sufficient to determine that receipts have been recorded properly for the period.
- 9. The auditor should determine that expenditures were properly authorized and supported by proper documents.
- 10. A review should be made of nonrevenue receipts and non-expense disbursements to determine if they were legal and properly recorded.
- 11. All other assets such as investments, prepaid expenses, fixed assets and similar items should be verified in accordance with generally accepted auditing standards.
- 12. All liabilities should be verified in accordance with generally accepted auditing standards. Proper authorities should be contacted to ascertain existence of any possible contingent liabilities.

#### **AUDIT REPORT REQUIREMENTS**

- 1. The report shall state whether the financial statements are presented in accordance with generally accepted accounting principles.
- 2. The report shall state whether such principles have been observed in the current period in relation to the preceding period.
- 3. The audit report shall contain the footnote disclosures and supplementary information in accordance with Governmental Accounting Standards Board Statement 25.
- 4. The audit report shall contain an opinion regarding the fairness of the financial statements as enumerated by the State Board of Accountancy Rules 58.1 and 58.2<sup>1</sup>. The types of opinions that may be expressed are:
  - a. an unqualified opinion
  - b. a qualified opinion
  - c. an adverse opinion
  - d. a disclaimer of opinion
- 5. The report should be based on fair value as described in GASB Statement 25. The net appreciation (depreciation) in the fair value of investments, as defined in GASB Statement 25 must be disclosed separately in the financial statements.

#### **AUDIT REPORT FORMAT**

It is suggested that the audit report be prepared in accordance with the following general format.

- 1. Title page
- 2. Table of contents
- 3. Scope, opinion and other necessary paragraphs

\_

<sup>&</sup>lt;sup>1</sup> 16 Cal. Adm. Code 58.1 - 58.2.

# EXCERPTS FROM THE CALIFORNIA GOVERNMENT CODE RELATING TO PUBLIC RETIREMENT SYSTEM REPORTS TO THE STATE CONTROLLER AUDIT REPORT FORMAT (Continued)

#### 4. Basic financial statements:

- a. Statement of Plan Net Assets
- b. Statement of Changes In Plan Net Assets
- c. Notes to the Financial Statements
- d. Required Supplementary Information in accordance with Governmental Accounting Standards Board Statement 25.

Some of the supplementary information such as schedules, comments, and statistical tables are optional and often enhance the usefulness of a report. An agency-wide audit is acceptable if the audit report includes a pension fund Statement of Plan Net Assets, Statement of Changes In Plan Net Assets, and the required supplementary information in combining or individual fund financial statements. Appropriate footnotes are also required.

#### MANAGEMENT LETTER

Management of the retirement system has the responsibility for establishing and maintaining internal controls and checks. The auditor should issue a separate letter containing suggestions and recommendations relating to opportunities for improvement in the systems accounting and financial controls.

#### EXCERPTS FROM THE CALIFORNIA GOVERNMENT CODE RELATING TO PUBLIC RETIREMENT SYSTEM REPORTS TO THE STATE CONTROLLER

§ 7501

It is the intent and purpose of the Legislature, in enacting this chapter, to safeguard the solvency of all public retirement systems and funds. The Legislature finds and declares that public agencies maintaining retirement systems can benefit from periodic and independent analysis of their financial condition. It is the purpose of \* \* \* Sections 7502, 7503, and 7504 to enable the State Controller to gather information to compare and evaluate the financial condition of such systems and to make such comparisons and evaluations.

**§** 7502

The State Controller shall review the annual financial report of each state and local public retirement system submitted pursuant to Section 7504 giving particular consideration to the adequacy of funding of each system. The State Controller shall also review the triennial valuation of each public retirement system submitted pursuant to Section 7504 and shall give particular consideration to the assumption concerning the inflation element in salary and wage increases, mortality, service retirement rates, withdrawal rates, disability retirement rates, and the rate of return on total assets.

The State Controller shall establish an advisory committee which shall include enrolled actuaries, as defined in Section 7504, and state and local public retirement system administrators, to assist in carrying out the duties imposed by this section.

**§** 7503

All state and local public retirement systems shall prepare an annual report in accordance with generally accepted accounting principles.

## EXCERPTS FROM THE CALIFORNIA GOVERNMENT CODE RELATING TO PUBLIC RETIREMENT SYSTEM REPORTS TO THE STATE CONTROLLER (Continued)

**§** 7504

- (a) All state and local public retirement systems shall, not less than triennially, secure the services of an enrolled actuary. An enrolled actuary, for the purposes of this section, means an actuary enrolled under subtitle C of Title III of the Employee Retirement Income Security Act of 1974 and who has demonstrated experience in public retirement systems. The actuary shall perform a valuation of the system utilizing actuarial assumptions and techniques established by the agency which are, in the aggregate, reasonably related to the experience and the actuary's best estimate of anticipated experience under the system. Any differences between the actuarial assumptions and techniques used by the actuary which differ significantly from those established by the agency shall be disclosed in the actuary's report and the effect of such differences on the actuary's statement of costs and obligations shall be shown.
- (b) All state and local public retirement systems shall secure the services of a qualified person to perform an attest audit of the system's financial statements. A qualified person means any of the following:
- (1) A person who is licensed to practice as a certified public accountant in this state by the State Board of Accountancy.
- (2) A person who is registered and entitled to practice as a public accountant in this state by the State Board of Accountancy.
- (3) A county auditor in any county subject to the County Employees Retirement Law of 1937.
- (4) A county auditor in any county having a pension trust and retirement plan established pursuant to Section 53216.

# EXCERPTS FROM THE CALIFORNIA GOVERNMENT CODE RELATING TO PUBLIC RETIREMENT SYSTEM REPORTS TO THE STATE CONTROLLER (Continued)

§ 7504 (Cont'd)

- (c) All state and local public retirement systems shall submit audited financial statements to the State Controller at the earliest practicable opportunity within six months of the close of each fiscal year. However, the State Controller may delay the filing date for reports due in the first year until such time as report forms have been developed which, in his judgment, will satisfy the requirements of this section. The financial statements shall be prepared in accordance with generally accepted accounting principles in the form and manner prescribed by the State Controller. The penalty prescribed in Section 53895 shall be invoked for failure to comply with this section. Upon a satisfactory showing of good cause, the State Controller may waive the penalty for late filing provided by this subdivision.
- (d) The State Controller shall compile and publish a report annually on the financial condition of all state and local public retirement systems containing, but not limited to, the data required in Section 7502.

**§** 53216

The Legislative body of a local agency may establish a pension trust funded by individual life insurance contracts, individual annuities, group policies of life insurance, or group annuities, or any one or combination of them, or by any other investment authorized by this article for the benefit of its officers and employees.

The legislative body of a local agency may make participation in any plan under such pension trust optional with the officers and employees of the local agency or it may make participation in such pension trust plan compulsory for the officers and employees of such agency.

Officers and employees who participate in such pension trust plan, whether it is optional or compulsory, shall have their plan contributions deducted from their compensation.

# EXCERPTS FROM THE CALIFORNIA GOVERNMENT CODE RELATING TO PUBLIC RETIREMENT SYSTEM REPORTS TO THE STATE CONTROLLER (Continued)

§ 53216

The legislative body of a local agency may establish a pension trust funded by individual life insurance contracts, individual annuities, group policies of life insurance, or group annuities, or any one or combination of them, or by any other investment authorized by this article for the benefit of its officers and employees.

The legislative body of a local agency may make participation in any plan under such pension trust optional with the officers and employees of the local agency or it may make participation in such pension trust plan compulsory for the officers and employees of such agency.

Officers and employees who participate in such pension trust plan, whether it is optional or compulsory, shall have their plan contributions deducted from their compensation.

§ 53895

- (a) An officer of a local agency who fails or refuses to make and file his or her report within twenty days after receipt of a written notice of the failure from the Controller shall forfeit to the state \* \* \*
- (1) One thousand dollars (\$1,000), in the case of a local agency with total revenue, in the prior year, of less than one hundred thousand dollars (\$100,000), as reported in the Controller's annual financial reports.
- (2) Two thousand five hundred dollars (\$2,500) in the case of a local agency with total revenue, in the prior year, of at least one hundred thousand dollars (\$100,000) but less than two hundred fifty thousand dollars (\$250,000), as reported in the Controller's annual financial reports.
- (3) Five thousand dollars (\$5,000) in the case of a local agency with total revenue, in the prior year, of at least two hundred fifty thousand dollars (\$250,000), as reported in the Controller's annual financial reports.
- (b) Upon the request of the Controller, the Attorney General shall prosecute an action for the forfeiture in the name of the people of the State of California.

## EXHIBIT G ACTUARIAL VALUATION



Actuarial Valuation and Review as of June 30, 2016

→ Segal Consulting

This report has been prepared at the request of the Board of Retirement to assist in administering the Fund. This valuation report may not otherwise be copied or reproduced in any form without the consent of the Board of Retirement and may only be provided to other parties in its entirety. The measurements shown in the actuarial valuation may not be applicable for other purposes.

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100 Montgomery Street, Suite 500 San Francisco, CA 94104 T 415.263.8200 www.segalco.com

November 3, 2016

Board of Retirement Sacramento County Employees' Retirement System 980 9<sup>th</sup> Street, Suite 1900 Sacramento, CA 95814

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of June 30, 2016. It summarizes the actuarial data used in the valuation, establishes the funding requirements for fiscal 2017-2018 and analyzes the preceding year's experience.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist in administering the Retirement System. The census information and financial information on which our calculations were based was prepared by the Retirement System. That assistance is gratefully acknowledged. The actuarial calculations were completed under the supervision of Andy Yeung, ASA, MAAA, Enrolled Actuary.

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

We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in the actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and the expectations for the Retirement System.

We look forward to reviewing this report at your next meeting and to answering any questions.

Sincerely,

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

By

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

Vice President and Actuary

JAC/hy

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### **Purpose**

This report has been prepared by Segal Consulting to present a valuation of the Sacramento County Employees' Retirement System as of June 30, 2016. The valuation was performed to determine whether the asset and contribution levels will be sufficient to provide the prescribed benefits. The contribution requirements presented in this report are based on:

- > The benefit provisions of the Retirement System, as administered by the Board of Retirement;
- > The characteristics of covered active members, inactive vested members, and retired members and beneficiaries as of June 30, 2016, provided by the Retirement System;
- > The assets of the plan as of June 30, 2016, provided by the Retirement System;
- > Economic assumptions regarding future salary increases and investment earnings; and
- > Other actuarial assumptions, regarding employee terminations, retirement, death, etc.

One of the general goals of an actuarial valuation is to establish contributions which fully fund the System's liabilities, and which, as a percentage of payroll, remain as level as possible for each generation of active members. Annual actuarial valuations measure the progress toward this goal, as well as test the adequacy of the contribution rates.

In preparing this valuation, we have employed generally accepted actuarial methods and assumptions to evaluate the System's assets, liabilities and future contribution requirements. Our calculations are based upon member data and financial information provided to us by the System's staff. This information has not been audited by us, but it has been reviewed and found to be consistent, both internally and with prior year's information.

Reference: Pg. 82

The contribution requirements are determined as a percentage of payroll. The System's employer rates provide for both Normal Cost and a contribution to amortize any unfunded or overfunded actuarial accrued liabilities. In this valuation, we have applied the funding policy adopted by the Board on June 19, 2013 to (1) continue to amortize the unfunded actuarial accrued liability (UAAL) established as a result of the 2010 Early Retirement Incentive Program for the Sacramento County Law Enforcement Managers Association (LEMA) members over a 10-year period beginning June 30, 2010 and (2) to amortize the System's remaining outstanding balance of the June 30, 2012 UAAL over a declining 23-year period (19 years as of June 30, 2016). Effective with the June 30, 2013 valuation, the Board of Retirement's funding policy is to amortize any change in UAAL that arises due to actuarial gains or losses or from changes in actuarial assumptions or methods at each valuation over its own declining 20-year period. Any change in UAAL that arises due to plan amendments will be amortized over its own declining 15-year period and any change in UAAL due to retirement incentive programs will be amortized over its own



declining period of up to 5 years. The rates calculated in this report may be adopted by the Board for the fiscal year that extends from July 1, 2017 through June 30, 2018.

### **Significant Issues in Valuation Year**

- > It is our understanding that there are additional members who have not been reported to the Retirement System by their employers but who are entitled to accrue pension benefits. We have been informed by the System that these member records are currently being reviewed and that, in order to deliver our valuation report in a timely manner, we should not wait for these additional member records. These members have not been included in this valuation report.
- Reference: Pg. 66 > Based on our letter dated August 11, 2016 titled "Options for Allocation of Normal Cost and Adjustment of Board Provided Member Future COLA Contribution Offset for Members in Non-PEPRA Tiers," we have allocated the Normal Cost to the Employers and applied the credit to 30-year members based on action taken by the Board.
- Reference: Pgs. 85-86 > As part of the transition to phase-in the full 50:50 sharing of the Normal Cost, an adjustment will be applied to gross up the member rates to account for the difference in how the contributions paid by the employer and the member are collected with respect to integration with Social Security. Because members in SCERS are covered by Social Security, the member contribution rates paid to SCERS (as well as the benefits received from SCERS) for the first \$4,200 in annual salary are reduced by one-third to allow for integration with Social Security. It should be noted that under current practice, the employer pays the same Normal Cost rate for the entire annual salary.

In preparing the 50:50 Normal Cost rates during the phase-in period, we have assumed that the above member and employer rate structures would be preserved. Since the transition to phase-in the full 50:50 sharing of the Normal Cost will be completed starting in 2017/2018, we would recommend an additional adjustment under the 50:50 Normal Cost rate allocation for the member Normal Cost rate for the first \$4,200 in annual salary being less (by one-third) when compared to the employer Normal Cost rate. The member rates before and after the gross-up to account for the difference (which vary by membership group and by tier is about 0.1% to 0.2% of payroll) are provided in Section 4, Appendix C in Subsections B and C, respectively.

> The ratio of the actuarial value of assets to actuarial accrued liabilities increased from 86.8% to 87.3%. On a market value of assets basis, the funded ratio decreased from 87.3% to 81.4%. The System's unfunded actuarial accrued liability increased from \$1,190 million as of June 30, 2015 to \$1,200 million as of June 30, 2016. The change in the UAAL is primarily due to investment returns (after "smoothing") lower than the 7.50% investment return assumption used in the June 30, 2015 valuation and other experience losses. A reconciliation of the System's unfunded actuarial accrued liability is provided in Section 3, Exhibit H.

Pg. 24

Pg. 51

Reference:

Reference:

Reference: Pg. 21

> The aggregate employer rate decreased from 22.29% of payroll to 21.13% of payroll. The reasons for this change in contribution rate are: (i) higher than expected contributions, (ii) lower than expected individual salary increases during 2015/2016, (iii) lower UAAL rate due to higher expected increase in total payroll, (iv) lower than expected COLA increases, (v) Orangevale and Rep Units 8, 18 and 29 members agreeing to pick up an additional portion of the Normal Cost starting in 2016/2017 and (vi) most County members in the legacy tiers continuing to pick up an additional portion of the Normal Cost in 2017/2018, all offset to some degree by lower than expected returns on investments (after "smoothing") and other actuarial losses. A reconciliation of the System's aggregate employer rate is provided in Section 2, Subsection D, Chart 14.

Reference: Pg. 22

- > The aggregate member rate calculated in this valuation has increased from 8.88% of payroll to 10.06% of payroll. The increase in member rate is primarily due to Orangevale and Rep Units 8, 18 and 29 members agreeing to pick up an additional portion of the Normal Cost starting in 2016/2017 and most County members in the legacy tiers continuing to pick up an additional portion of the Normal Cost in 2017/2018. A reconciliation of the System's aggregate member rate is provided in Section 2, Subsection D, Chart 15.
- > As of June 30, 2016, about 20% of active members are enrolled in the CalPEPRA tiers. As a result of the implementation of the CalPEPRA tiers, the aggregate Normal Cost rate is lower by about 0.3% of payroll, which is primarily due to the shift in payroll to the lower cost CalPEPRA tiers.

Reference: Pg. 6

- As indicated in Section 2, Subsection B, Chart 7 of this report, the total net unrecognized investment <u>loss</u> as of June 30, 2016 is \$555.5 million (as compared to a net unrecognized investment <u>gain</u> of \$40.0 million as of June 30, 2015). This investment loss will be recognized in the determination of the actuarial value of assets for funding purposes over the next six years. That means that even if the System earns the assumed rate of investment return of 7.50% per year on a market value basis, there will still be investment losses on the actuarial value of assets in the next few years. Therefore, if the actual market return is equal to the assumed rate of 7.50% and all the other actuarial assumptions are met, the employer contribution requirements would increase in the next few years.
- > The unrecognized investment losses represent about 7% of the market value of assets. Unless offset by future investment gains or other favorable experience, the recognition of the \$555.5 million in past market losses is expected to have an impact on the System's future funded ratio and the aggregate employer contributions. This potential impact may be illustrated as follows:
  - If the deferred losses were recognized immediately in the actuarial value of assets, the funded percentage would decrease from 87.3% to 81.4%.

Starting in 2017/2018, most Miscellaneous County members and all Safety County members in the legacy tiers would be paying 50% of the total Normal Cost rates in their Tiers.



- For comparison purposes, if all the deferred gains in the June 30, 2015 valuation had been recognized immediately in the June 30, 2015 valuation, the funded percentage would have increased from 86.8% to 87.3%.
- If the deferred losses were recognized immediately in the actuarial value of assets, the aggregate employer contribution rate would increase from 21.1% of payroll to 25.4% of payroll.
  - For comparison purposes, if all the deferred gains in the June 30, 2015 valuation had been recognized immediately in the June 30, 2015 valuation, the aggregate employer contribution rate would have decreased from 22.5% of payroll to 22.2% of payroll.
- > The \$81.1 million in the Contingency Reserve carried over from the previous valuation is available to offset future actuarial losses at the Board's discretion. If that amount were applied in the June 30, 2016 valuation, the aggregate employer contribution rate would have decreased by about 0.6% of payroll.
- > The actuarial valuation report as of June 30, 2016 is based on financial information as of that date. Changes in the value of assets subsequent to that date are not reflected. Declines in asset values will increase the actuarial cost of the plan, while increases will decrease the actuarial cost of the plan.
- > The actuarial valuation report as of June 30, 2016 only reflects the sharing of the total Normal Cost rate between the employer and most Miscellaneous County members and all Safety County members in the legacy tiers through 2017/2018. Any additional Normal Cost that the other Miscellaneous County members in the legacy tiers may agree to pick up beyond 2017/2018 will be reflected in future actuarial valuations.

### Impact of Future Experience on Contribution Rates

Future contribution requirements may differ from those determined in the valuation because of:

- > difference between actual experience and anticipated experience;
- > changes in actuarial assumptions or methods;
- > changes in statutory provisions; and
- > difference between the contribution rates determined by the valuation and those adopted by the Board.



Summary of Key Valuation Results	June 30, 2016 Estimated		June 30, 2015	
<b>Employer Contribution Rates (Dollar amounts in thousands):</b>				Estimated
	Total Rate	Annual Amount <sup>(1)</sup>	Total Rate	Annual Amount(1)
Miscellaneous Tier 1	16.33%	\$1,076	16.63%	\$1,096
Miscellaneous Tier 2	14.45%	632	15.27%	668
Miscellaneous Tier 3	16.69%	96,565	17.95%	103,867
Miscellaneous Tier 4	15.01%	3,597	15.23%	3,650
Miscellaneous Tier 5	14.44%	15,869	14.45%	15,882
Safety Tier 1	41.30%	11,827	42.11%	12,058
Safety Tier 2	37.44%	55,832	39.42%	58,784
Safety Tier 3	36.51%	3,566	37.73%	3,685
Safety Tier 4	34.11%	9,415	34.40%	9,494
All Categories Combined	21.13%	\$198,379	22.29%	\$209,184
Aggregate Member Contribution Rates (Dollar amounts in		Estimated		Estimated
thousands):	Total Rate	Annual Amount <sup>(1)</sup>	Total Rate	Annual Amount(1)
All Categories Combined	10.06%	\$94,419	8.88%	\$83,328
Individual Member Contribution Rates:				
(Before reflecting members in legacy tiers agreeing to pick up an		Per Member		Per Member
additional portion of the Normal Cost)	Total Rate <sup>(2)</sup>	Annual Amount <sup>(3)</sup>	Total Rate <sup>(2)</sup>	Annual Amount(3)
Miscellaneous Tier 1	4.95%	\$3,865	4.75%	\$3,703
Miscellaneous Tier 2	3.54%	2,448	3.54%	2,448
Miscellaneous Tier 3	4.78%	3,501	4.76%	3,489
Miscellaneous Tier 4	7.24%	5,185	7.19%	5,156
Miscellaneous Tier 5	7.93%	4,064	8.02%	4,110
Safety Tier 1	16.09%	20,908	15.39%	19,997
Safety Tier 2	12.42%	13,681	12.37%	13,628
Safety Tier 3	12.10%	11,420	12.06%	11,377
Safety Tier 4	13.14%	9,723	13.11%	9,701

<sup>(1)</sup> Based on June 30, 2016 projected annual compensation.



Based on single full-rates payable by members who enter on or after January 1, 1975.

<sup>(3)</sup> Based on average projected annual compensation for members in each respective tier.

	luna 20, 2016	luna 20, 2015
	June 30, 2016	June 30, 2015
Funded Status (Dollar Amounts in thousands):		
Actuarial accrued liability <sup>(1)</sup>	\$9,436,090	\$9,028,679
Actuarial value of assets (AVA) <sup>(1)</sup>	8,236,402	7,838,825
Market value of assets (MVA)	7,680,865	7,878,814
Funded percentage on an AVA basis	87.3%	86.8%
Funded percentage on a MVA basis	81.4%	87.3%
Unfunded actuarial accrued liability on an AVA basis	\$1,199,688	\$1,189,854
Unfunded actuarial accrued liability on a MVA basis	1,755,225	1,149,865
Key Assumptions:		
Interest rate	7.50%	7.50%
Inflation rate	3.25%	3.25%
Across-the-board real salary increase	0.25%	0.25%

<sup>(1)</sup> Includes non-valuation reserves and designations.



SECTION 1: Valuation Summary for the Sacramento County Employees' Retirement System

	June 30, 2016	June 30, 2015	Percentage Change
Active Members:			
Number of members	12,393	12,072	2.7%
Average age	46.3	46.7	N/A
Average service	12.4	12.7	N/A
Projected total compensation	\$938,554,870	\$897,340,379	4.6%
Average projected compensation	\$75,733	\$74,332	1.9%
Retired Member and Beneficiaries:			
Number of members:			
Service retired	8,710	8,333	4.5%
Disability retired	717	729	-1.6%
Beneficiaries	1,533	1,479	3.7%
Total	10,960	10,541	4.0%
Average age	69.4	69.2	N/A
Average monthly benefit	\$3,156	\$3,072	2.7%
Vested Terminated Members:			
Number of terminated vested members <sup>(1)</sup>	3,301	3,261	1.2%
Average age	47.2	47.4	N/A
Summary of Financial Data (dollar amounts in thousands):			
Market value of assets	\$7,680,865	\$7,878,814	-2.5%
Return on market value of assets	-1.00%	1.94%	N/A
Actuarial value of assets	\$8,236,402	\$7,838,825	5.1%
Return on actuarial value of assets	6.57%	8.28%	N/A
Valuation value of assets	\$8,169,906	\$7,767,116	5.2%
Return on valuation value of assets	6.70%	7.82%	N/A

<sup>(1)</sup> Includes terminated members due a refund of member contributions.



### **Important Information about Actuarial Valuations**

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

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

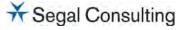
The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

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



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

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



### A. MEMBER DATA

The Actuarial Valuation and Review considers the number and demographic characteristics of covered members, including active members, vested terminated members, retired members and beneficiaries. This section presents a summary of significant statistical data on these member groups.

More detailed information for this valuation year and the preceding valuation can be found in Section 3, Exhibits A, B, and C.

A historical perspective of how the member population has changed over the past ten valuations can be seen in this chart.

CHART 1
Member Population: 2007 – 2016

Year Ended June 30	Active Members	Vested Terminated Members <sup>(1)</sup>	Retired Members and Beneficiaries	Ratio of Non-Actives to Actives
2007	14,716	2,437	7,464	0.67
2008	15,180	2,661	7,709	0.68
2009	14,796	2,818	7,968	0.73
2010	13,340	2,740	8,346	0.83
2011	12,434	2,710	8,821	0.93
2012	12,155	2,851	9,239	0.99
2013	12,026	3,249	9,634	1.07
2014	12,049	3,201	10,049	1.10
2015	12,072	3,261	10,541	1.14
2016	12,393	3,301	10,960	1.15

<sup>(1)</sup> Includes terminated members due a refund of member contributions



### **Active Members**

Plan costs are affected by the age, years of service and compensation of active members. In this year's valuation, there were 12,393 active members with an average age of 46.3, average years of service of 12.4 years and average compensation of \$75,733. The 12,072 active members in the prior valuation had an average age of 46.7, average service of 12.7 years and average compensation of \$74,332.

### **Inactive Members**

In this year's valuation, there were 3,301 members with a vested right to a deferred or immediate vested benefit or entitled to a return of their member contributions versus 3,261 in the prior valuation.

These graphs show a distribution of active members by age and by years of service.

CHART 2
Distribution of Active Members by Age as of June 30, 2016

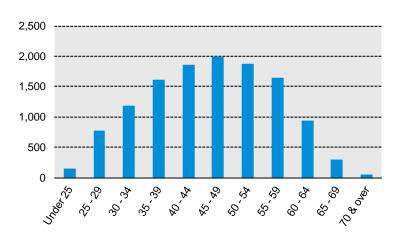
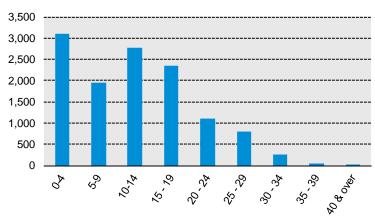


CHART 3

Distribution of Active Members by Years of Service as of June 30, 2016





### **Retired Members and Beneficiaries**

As of June 30, 2016, 9,427 retired members and 1,533 beneficiaries were receiving total monthly benefits of \$34,592,112. For comparison, in the previous valuation, there were 9,062 retired members and 1,479 beneficiaries receiving monthly benefits of \$32,379,365.

These graphs show a distribution of the current retired members and beneficiaries based on their monthly amount and age, by type of pension.

■Beneficiaries
■Disability

■Service

CHART 4

Distribution of Retired Members and Beneficiaries by Type and by Monthly Amount as of June 30, 2016

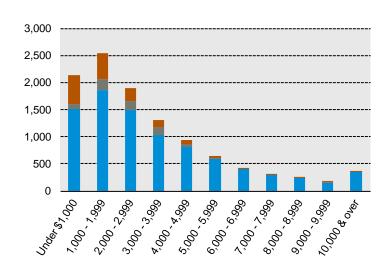
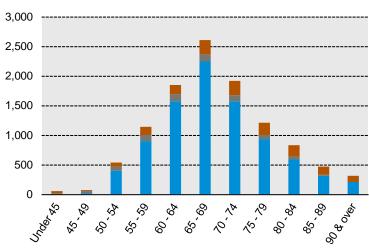


CHART 5
Distribution of Retired Members and Beneficiaries by Type and by Age as of June 30, 2016





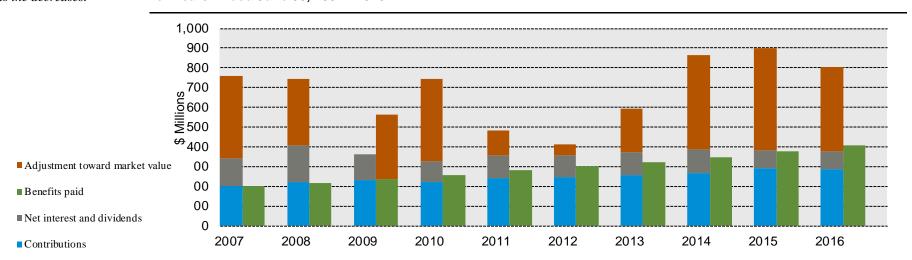
### B. FINANCIAL INFORMATION

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

Retirement plan assets change as a result of the net impact of these income and expense components. The adjustment toward market value shown in the chart is the "non-cash" earnings on investments implicitly included in the actuarial value of assets. Additional financial information, including a summary of these transactions for the valuation year, is presented in Section 3, Exhibits D and E.

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

CHART 6
Comparison of Increases and Decreases in the Actuarial Value of Assets for Years Ended June 30, 2007 - 2016





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

The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets does not have an impact on the actuarial value of assets.

The determination of the Actuarial and Valuation Value of Assets is provided on the following page.

In developing the actuarial value of assets as of June 30, 2016, we have used the investment gains/losses from the last few years starting July 1, 2008. The investment loss for the year ending June 30, 2016 was calculated by comparing the actual market return against an expected market return of 7.50% per annum used in the June 30, 2015 valuation. As adopted by the Board, any investment gains/losses established after July 1, 2008 will be recognized over a seven-year period and the deferred return will be further adjusted, if necessary, so that the actuarial value of assets will stay within 30% of the market value of assets. Deferred gains and losses as of June 30, 2013 have been combined and will be recognized in equal amounts over a period of six years starting July 1, 2013.



CHART 7 - Determination of Actuarial and Valuation Value of Assets for Year Ended June 30, 2016

From	То	Contributions	Benefits	Market Value	Average Market Value
7/2008	6/2009	\$231,634,350	\$235,677,778	\$4,407,858,000	\$5,807,291,027
7/2009	6/2010	219,555,464	258,023,786	4,980,962,000	4,462,064,342
7/2010	6//2011	240,071,877	280,594,039	6,140,644,000	5,040,052,530
7/2011	6/2012	244,788,721	301,803,914	6,073,926,000	6,187,197,677
7/2012	6/2013	257,906,339	323,566,930	6,787,995,000	6,124,682,749
7/2013	6/2014	268,138,220	347,619,527	7,810,001,000	6,828,714,719
7/2014	6/2015	291,101,995	374,657,240	7,878,814,000	7,856,443,766
7/2015	6/2016	286,513,833	405,702,024	7,680,865,000	7,900,083,408

		Total Actual Market	Expected Market	investment Gain		
Fre	om To	Return (net)	Return (net)	(Loss)	Deferred Factor	Deferred Return
7/2	008 6/2009	\$(1,324,427,572)	\$457,324,168	\$(1,781,751,740)		
7/2	009 6/2010	611,572,322	351,387,567	260,184,755		
7/2	010 6//2011	1,200,204,162	390,604,071	809,600,091	See footno	te (1) below
7/2	011 6/2012	(9,702,807)	479,507,820	(489,210,627)		
7/2	012 6/2013	779,729,591	459,351,206	320,378,385	0.500	\$(4,880,835)
7/2	013 6/2014	1,101,487,307	512,153,604	589,333,703	0.571	336,762,116
7/2	014 6/2015	152,368,245	589,233,282	(436,865,037)	0.714	(312,046,455)
7/2	015 6/2016	(78,760,809)	592,506,256	(671,267,065)	0.857	(575,371,769)
1. Total	Deferred Return <sup>(2)</sup>					\$(555,536,943)

- Net Market Value
- Actuarial Value of Assets (Item 2 Item 1)
- Actuarial Value as a Percentage of Market Value (Before Corridor: Item 3 / Item 2)
- Actuarial Value of Assets Corridor Limits:
  - a. Lower Limit 70% of Net Market Value
  - b. Upper Limit 130% of Net Market Value
- Actuarial Value of Assets (within corridor)
- - Non-valuation reserves and designations:
  - Contingency Reserve
  - Other Non-Valuation Reserves
  - Subtotal
- Preliminary Valuation Value of Assets (Item 6 Item 7c)
- Adjustment to Preliminary Valuation Value of Assets
  - Balance of transfer to offset member COLA rate
  - Surplus/(deficit) for withdrawn employer (preliminary)<sup>(3)</sup>
  - c. Subtotal
- 10. Final Valuation Value of Assets (Item 8 Item 9c)

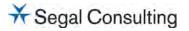
Based on action taken by the Board, the net deferred loss of \$9,761,669 through June 30, 2013 as of that valuation has been recognized in six level amounts with three periods of recognition remaining after the June 30, 2016 valuation.

The amounts of deferred return that will be recognized in each subsequent valuation are as follows:

6/30/2017 \$(75,741,002) 6/30/2018 \$(75,741,002) 6/30/2019 \$(75,741,001) 6/30/2020 \$(74,114,057)

\$(158,304,586) 6/30/2021 6/30/2022 \$(95,895,295)

Based on the latest estimate available as of June 30, 2015 for Florin Fire adjusted with interest at the assumed rate of investment return to June 30, 2016.



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

7,680,865,000

8,236,401,943

\$5,376,605,500

9,985,124,500

8,236,401,943

\$81,139,092

\$81,139,092

\$19,861,000

(34,503,755)

\$(14,642,755)

\$8,169,905,606

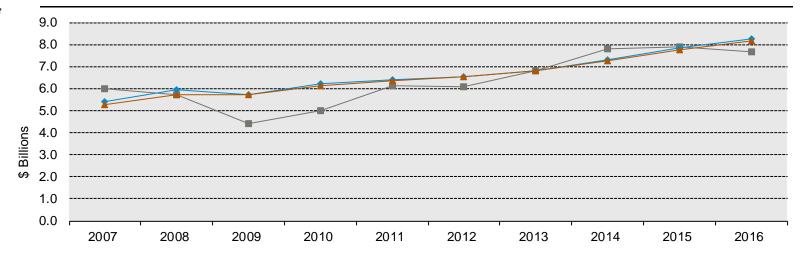
8,155,262,851

107.23%

The market value, actuarial value, and valuation value of assets are representations of SCERS' financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the market value of assets, but with less volatility. The valuation value of assets is the actuarial value, excluding any non-valuation reserves. The valuation asset value is significant because SCERS' liabilities are compared to these assets to determine what portion, if any, remains unfunded. Amortization of the unfunded actuarial accrued liability is an important element in determining the contribution requirement.

This chart shows the change in market value, actuarial value and valuation value over the past ten years.

### CHART 8 Market Value, Actuarial Value and Valuation Value of Assets as of June 30, 2007 – 2016







### C. ACTUARIAL EXPERIENCE

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

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term

development and that, over the long term, experience will return to the original assumptions. For contribution requirements to remain stable, assumptions should approximate experience.

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

The net experience loss was \$11.8 million, \$62.1 million loss from investments and \$50.3 million gain from all other sources. The net experience variation from individual sources other than investments was 0.5% of the actuarial accrued liability. An explanation of the experience variation is provided on page 12 and in Section 3, Exhibit H. A discussion of the major components of the actuarial experience is on the following pages.

This chart provides a summary of the actuarial experience during the past year.

### CHART 9 Actuarial Experience for Year Ended June 30, 2016

1.	Net loss from investments <sup>(1)</sup>	\$(62,151,000)
2.	Net gain from other experience <sup>(2)</sup>	50,304,000
3.	Net experience loss: $(1) + (2)$	\$(11,847,000)

<sup>(1)</sup> Details in Chart 10.



<sup>(2)</sup> Details in Section 3, Exhibit H. Does not include the effect of plan or assumption changes, if any.

### **Investment Rate of Return**

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on SCERS' investment policy. For valuation purposes, the assumed rate of return on the valuation value of assets was 7.50% in the June 30, 2015 valuation. The actual rate of return on a valuation basis for the 2015/2016 plan year was 6.70%.

Since the actual return on the valuation value of assets for the year was less than the assumed return, SCERS experienced an actuarial loss during the year ended June 30, 2016 with regard to its investments.

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

CHART 10
Investment Experience for Year Ended June 30, 2016 – Market, Actuarial and Valuation Value of Assets

	Market Value	Actuarial Value	Valuation Value
Actual return	\$(78,761,000)	\$516,765,000	\$521,978,000
2. Average value of assets	7,900,084,000	7,860,095,000	7,788,386,000
3. Actual rate of return: $(1) \div (2)$	-1.00%	6.57%	6.70%
4. Assumed rate of return	7.50%	7.50%	7.50%
5. Expected return:	<u>592,506,000</u>	<u>589,507,000</u>	<u>584,129,000</u>
6. Actuarial gain/(loss): (1) – (5)	<u>\$(671,267,000)</u>	<u>\$(72,742,000)</u>	<u>\$(62,151,000)</u>



Because actuarial planning is long term, it is useful to see how the assumed investment rate of return has followed actual experience over time. The chart below shows the rate of return on an actuarial, valuation, and market basis for the last ten years.

CHART 11
Investment Return – Market Value, Actuarial Value and Valuation Value: 2007 – 2016

	Market \ Investment		Actuarial Investment		Valuation Value Investment Return	
Year Ended June 30	Amount	Percent	Amount	Percent	Amount	Percent
2007	\$885,687,000	17.19%	\$558,262,000	11.37%	\$470,717,000	9.65%
2008	(240,661,000)	(3.98%)	523,169,000	9.56%	413,272,000	7.72%
2009	(1,324,428,000)	(22.81%)	(196,500,000)	(3.27%)	9,241,000	0.16%
2010	611,573,000	13.71%	525,248,000	9.08%	450,949,000	7.83%
2011	1,200,204,000	23.81%	244,352,000	3.89%	269,937,000	4.37%
2012	(9,702,000)	(0.16%)	166,087,000	2.57%	238,467,000	3.73%
2013	779,729,000	12.73%	333,523,000	5.07%	341,373,000	5.19%
2014	1,101,488,000	16.13%	594,718,000	8.70%	551,884,000	8.06%
2015	152,368,000	1.94%	609,387,000	8.28%	572,950,000	7.82%
2016	(78,761,000)	(1.00%)	516,765,000	6.57%	521,978,000	6.70%
ve-Year Average Return		5.70%		6.22%		6.29%
en-Year Average Return		4.90%		6.10%		6.09%

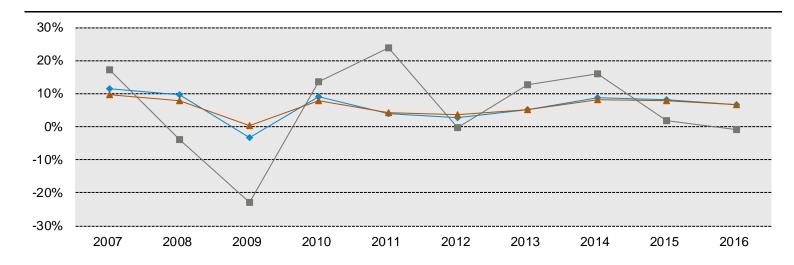


Subsection B described the actuarial asset valuation method that gradually takes into account fluctuations in the market value rate of return. The effect of this is to stabilize the actuarial rate of return, which contributes to leveling pension plan costs.

This chart illustrates how this leveling effect has actually worked over the years 2007 - 2016.

CHART 12

Market, Actuarial and Valuation Rates of Return for Years Ended June 30, 2007 – 2016





### **Other Experience**

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation.

### These include:

- > actual turnover among the participants,
- retirement experience (earlier or later than expected),
- > mortality (more or fewer deaths than expected),
- > the number of disability retirements, and
- > salary increases different than assumed.

The net gain from this other experience for the year ended June 30, 2016 amounted to \$50.3 million which is 0.5% of the actuarial accrued liability. See Section 3, Exhibit H for a detailed development of the Unfunded Actuarial Accrued Liability, and the breakdown of the actuarial gain/loss from other experience.



### D. EMPLOYER AND MEMBER CONTRIBUTIONS

Employer contributions consist of two components:

Normal Cost

The annual contribution rate that, if paid annually from a member's first year of membership through the year of retirement, would accumulate to the amount necessary to fully fund the member's retirement-related benefits. Accumulation includes annual crediting of interest at the assumed investment earning rate. The contribution rate is expressed as a level percentage of the member's compensation.

Contribution to the Unfunded Actuarial Accrued Liability (UAAL)

The annual contribution rate that, if paid annually over the UAAL amortization period, would accumulate to the amount necessary to fully fund the UAAL. Accumulation includes annual crediting of interest at the assumed investment earning rate. The contribution (or rate credit in the case of a negative unfunded actuarial accrued liability) is calculated to remain as a level percentage of future active member payroll (including payroll for new members as they enter the System) assuming a constant number of active members. In order to remain as a level percentage of payroll, amortization payments (credits) are scheduled to increase at the annual inflation rate of 3.50% (i.e., 3.25%) inflation plus 0.25% real across-the-board salary increase). The UAAL established as a result of the Early Retirement Incentive Program for LEMA members is amortized over a 10-year period beginning June 30, 2010. Effective with the June 30, 2013 valuation, the System's remaining outstanding balance of the June 30, 2012 UAAL is being amortized over a declining 23-year period (19 years as of June 30, 2016). The change in UAAL that arises due to actuarial gains or losses or from changes in actuarial assumptions or methods at each valuation is amortized over its own declining 20-year period. Any change in UAAL that arises due to plan amendments will be amortized over its own declining 15-year period and any change in UAAL due to retirement incentive programs will be amortized over its own declining period of up to 5 years.

Starting with the June 30, 2015 valuation, we have added to the Miscellaneous employer UAAL rate for the County an amount to reflect the net withdrawal liability for the Library Authority and Air Quality Districts when they terminated their affiliation with the County and became special districts.

The recommended employer contributions are provided on Chart 13.

Employer Normal Cost and UAAL contribution rates are calculated assuming payments made at the end of every pay period.



### Member Contributions

Miscellaneous Tiers 1, 2, 3 & 4 Safety Tiers 1, 2, & 3

Articles 6 and 6.8 of the 1937 Act define the methodology to be used in the calculation of member basic contribution rates for Miscellaneous members and Safety members, respectively, in the legacy tiers. The basic contribution rate is determined as that percentage of compensation which if paid annually from a member's first year of membership through the prescribed retirement age would accumulate to the amount necessary to fund a prescribed annuity.

The annuity is equal to:

- ➤ 1/240 of Final Average Salary per year of service at age 55 for current Miscellaneous Tier 1, Tier 2 and Tier 3 members
- > 1/120 of Final Average Salary per year of service at age 60 for current Miscellaneous Tier 4 members
- ➤ 1/100 of Final Average Salary per year of service at age 50 for current Safety Tier 1, Tier 2 and Tier 3 members

In addition to their basic contributions, members in the legacy tiers pay one-half of the total Normal Cost necessary to fund their cost-of-living benefits. The cost to provide the cost-of-living benefits is offset somewhat by the balance available in an account maintained in the valuation to offset member's COLA rates in the legacy tiers. Accumulation includes semi-annual crediting of interest at the assumed investment earning rate. For members paying half rates prior to the June 30, 2015 valuation, their rates should be exactly one-half of the rates described above. Note that effective with the June 30, 2015 valuation, all members are reported as paying at least full-rate.

After we completed the June 30, 2013 valuation, we were informed by SCERS that starting in 2014/2015, most County members in the legacy tiers have agreed to pick up either 1/3, 1/4, or 1/5 of the difference between the employee's then current Normal Cost and 50% of the total Normal Cost rate. The adjustments required for the employer and employee rates were subsequently provided to the System.

As those members have agreed to pick up an additional 1/3, 1/4, or 1/5 of the difference in the Normal Cost rate in 2015/2016, 2016/2017 and 2017/2018, we have reflected these



adjustments in preparing the recommended rates for the June 30, 2014, June 30, 2015 and June 30, 2016 valuations, respectively.

For Rep Unit 26 Miscellaneous members, the member rates they have started to pay in 2015/2016 are 1% of payroll higher than the rates they paid in 2014/2015. In developing their rates for 2016/2017, we have added an additional 2% of payroll to the rates for 2015/2016.

For 2017/2018, all of the above members who have previously agreed to pay a higher Normal Cost rate are paying 50% of the total Normal Cost rate.

Miscellaneous Tier 5 & Safety Tier 4

Pursuant to Section 7522.30(a) of the Government Code, Miscellaneous Tier 5 and Safety Tier 4 members are required to contribute at least 50% of the Normal Cost rate. In addition, there are certain additional requirements that would have to be met such as requiring the new employees to pay the contribution rate of "similarly situated employees", if it is greater. (reference: Section 7522.30(c)). We further understand that different rules may have to be applied for collectively bargained employees, non-represented, managerial or other supervisory employees. (reference: Section 7522.30(e)). In preparing the Normal Cost rates in this report, we have assumed that exactly 50% of the Normal Cost would be paid by the new members and we have taken into account in this valuation only the requirements of Section 7522.30(c), but not requirements of Section 7522.30(e).

The member contribution rates are provided in Appendix A.

Member contributions are assumed to be made at the end of every pay period.



**CHART 13 Recommended Employer Contribution Rates (Dollar Amounts in Thousands)** 

		20, 2016		e 30, 2015
County Only <sup>(1)</sup>	Actuarial Valuation		Actuarial Valuation	
		Estimated Annual		Estimated Annual
Miscellaneous – Tier 1 Members	Rate	Amount <sup>(2)</sup>	Rate	Amount <sup>(2)</sup>
Normal Cost	9.65%	\$555	10.08%(3)	\$580
UAAL	6.18%	355	6.11%	352
Total Contribution	15.83%	\$910	16.19%(3)	\$932
Miscellaneous – Tier 2 Members				
Normal Cost	7.67%	\$268	8.81%(3)	\$308
UAAL	6.18%	216	6.11%	214
Total Contribution	13.85%	\$484	14.92%(3)	\$522
Miscellaneous – Tier 3 Members				
Normal Cost	9.71%	\$49,693	11.21%(3)	\$57,369
UAAL	6.18%	31,618	6.11%	31,269
Total Contribution	15.89%	\$81,311	17.32%(3)	\$88,638
Miscellaneous – Tier 4 Members				
Normal Cost	8.83%	\$2,116	9.12%(3)	\$2,186
UAAL	6.18%	1,481	6.11%	1,464
Total Contribution	15.01%	\$3,597	15.23%(3)	\$3,650
Miscellaneous – Tier 5 Members				
Normal Cost	7.93%	\$8,021	8.02%	\$8,112
UAAL	6.18%	6,250	6.11%	6,180
Total Contribution	14.11%	\$14,271	14.13%	\$14,292
All Miscellaneous County Categories				
Combined				
Normal Cost	9.39%	\$60,653	10.61%	\$68,555
UAAL	6.18%	39,920	6.11%	39,479
Total Contribution	15.57%	\$100,573	16.72%	\$108,034

<sup>(1)</sup> Includes elected officials (Board of Supervisors, Sheriff, District Attorney and Assessor).



Based on June 30, 2016 projected annual payroll, see page 20.

(3) These rates reflect an adjustment since the issuance of the June 30, 2015 valuation report to reflect the correct pickup in 2016/2017 for the G15A cost sharing group.

### **Recommended Employer Contribution Rates (Dollar Amounts in Thousands)**

County Only <sup>(1)</sup>		30, 2016 al Valuation	June 30, 2015 Actuarial Valuation		
County only	Tietuari	Estimated Annual		Estimated Annual	
Safety – Tier 1 Members	Rate	Amount <sup>(2)</sup>	Rate	Amount <sup>(2)</sup>	
Normal Cost	20.33%	\$5,822	20.82%	\$5,962	
UAAL	20.97%	6,005	21.29%	6,096	
Total Contribution	41.30%	\$11,827	42.11%	\$12,058	
Safety – Tier 2 Members				·	
Normal Cost	16.47%	\$24,561	18.13%	\$27,036	
UAAL	20.97%	31,271	21.29%	31,748	
Total Contribution	37.44%	\$55,832	39.42%	\$58,784	
Safety – Tier 3 Members					
Normal Cost	15.54%	\$1,518	16.44%	\$1,606	
UAAL	20.97%	2,048	21.29%	2,079	
Total Contribution	36.51%	\$3,566	37.73%	\$3,685	
Safety – Tier 4 Members					
Normal Cost	13.14%	\$3,627	13.11%	\$3,618	
UAAL	20.97%	5,788	21.29%	5,876	
Total Contribution	34.11%	\$9,415	34.40%	\$9,494	
All Safety County Categories Combined					
Normal Cost	16.51%	\$35,528	17.77%	\$38,222	
UAAL	20.97%	45,112	21.29%	45,799	
Total Contribution	37.48%	\$80,640	39.06%	\$84,021	
All County Categories Combined					
Normal Cost	11.16%	\$96,181	12.40%	\$106,777	
UAAL	9.87%	85,032	9.90%	85,278	
Total Contribution	21.03%	\$181,213	22.30%	\$192,055	

<sup>(1)</sup> Includes elected officials (Board of Supervisors, Sheriff, District Attorney and Assessor).
(2) Based on June 30, 2016 projected annual payroll, see page 20.



### **Recommended Employer Contribution Rates (Dollar Amounts in Thousands)**

Superior Court Only		30, 2016 I Valuation	June 30, 2015 Actuarial Valuation		
M: 11 (F) 4 M 1	D .	Estimated Annual	D .	Estimated Annual	
Miscellaneous – Tier 1 Members	Rate	Amount <sup>(1)</sup>	Rate	Amount <sup>(1)</sup>	
Normal Cost	12.01%	\$80	11.92%	\$80	
UAAL	6.15%	41	6.07%	40	
Total Contribution	18.16%	\$121	17.99%	\$120	
Miscellaneous – Tier 2 Members					
Normal Cost	10.72%	\$94	10.59%	\$93	
UAAL	6.15%	54	6.07%	53	
Total Contribution	16.87%	\$148	16.66%	\$146	
Miscellaneous – Tier 3 Members					
Normal Cost	13.69%	\$5,747	13.76%	\$5,777	
UAAL	6.15%	2,581	6.07%	2,548	
Total Contribution	19.84%	\$8,328	19.83%	\$8,325	
Miscellaneous – Tier 5 Members					
Normal Cost	7.93%	\$333	8.02%	\$336	
UAAL	6.15%	258	6.07%	255	
Total Contribution	14.08%	\$591	14.09%	\$591	
All Superior Court Categories Combined					
Normal Cost	13.11%	\$6,254	13.71%	\$6,286	
UAAL	6.15%	2,934	6.07%	2,896	
Total Contribution	19.26%	\$9,188	19.24%	\$9,182	

<sup>(1)</sup> Based on June 30, 2016 projected annual payroll, see page 20.

Note: Superior Court members have not agreed to pick up any additional portion of the total Normal Cost.



### **Recommended Employer Contribution Rates (Dollar Amounts in Thousands)**

District Only		30, 2016 Il Valuation	June 30, 2015 Actuarial Valuation		
		Estimated Annual		Estimated Annual	
Miscellaneous – Tier 1 Members	Rate	Amount <sup>(1)</sup>	Rate	Amount <sup>(1)</sup>	
Normal Cost	12.01%	\$21	11.92%	\$20	
UAAL	14.26%	24	14.00%	24	
Total Contribution	26.27%	\$45	25.92%	\$44	
Miscellaneous - Tier 3 Members					
Normal Cost	13.59%	\$3,380	13.76%	\$3,422	
UAAL	14.26%	3,546	14.00%	3,482	
Total Contribution	27.85%	\$6,926	27.76%	\$6,904	
Miscellaneous – Tier 5 Members		·		·	
Normal Cost	7.93%	\$360	8.02%	\$364	
UAAL	14.26%	647	14.00%	635	
Total Contribution	22.19%	\$1,007	22.02%	\$999	
All District Categories Combined					
Normal Cost	12.72%	\$3,761	12.87%	\$3,806	
UAAL	14.26%	4,217	14.00%	4,141	
Total Contribution	26.98%	\$7,978	26.87%	\$7,947	
All County and District Categories					
Combined					
Normal Cost	11.31%	\$106,196	12.45%	\$116,869	
UAAL	9.82%	92,183	9.84%	92,315	
Total Contribution	21.13%	\$198,379	22.29%	\$209,184	

<sup>(1)</sup> Based on June 30, 2016 projected annual payroll, see page 20.



**Recommended Employer Contribution Rates (Dollar Amounts in Thousands)** 

June 30, 2016 projected annual payroll used in developing employer contribution rates on the four previous pages

	County <sup>(1)</sup>	Superior Court	<u>District</u>	<u>Total</u>
Miscellaneous Tier 1	\$5,753	\$667	\$171	\$6,591
Miscellaneous Tier 2	3,497	878	0	4,375
Miscellaneous Tier 3	511,765	41,981	24,870	578,616
Miscellaneous Tier 4	23,965	0	0	23,965
Miscellaneous Tier 5	<u>101,153</u>	4,193	<u>4,536</u>	109,882
Subtotal	\$646,133	\$47,719	\$29,577	\$723,429
Safety Tier 1	\$28,635	\$0	\$0	\$28,635
Safety Tier 2	149,124	0	0	149,124
Safety Tier 3	9,767	0	0	9,767
Safety Tier 4	<u>27,600</u>	<u>0</u>	<u>0</u>	<u>27,600</u>
Subtotal	\$215,126	\$0	\$0	\$215,126
Total	\$861,259	\$47,719	\$29,577	\$938,555

<sup>(1)</sup> Includes elected officials (Board of Supervisors, Sheriff, District Attorney and Assessor).



The contribution rates as of June 30, 2016 are based on all of the data described in the previous sections, the actuarial assumptions described in Section 4, and the Plan provisions adopted at the time of preparation of the Actuarial Valuation. They include all changes affecting

future costs, adopted benefit changes, actuarial gains and losses and changes in the actuarial assumptions.

## Reconciliation of Recommended Contribution Rate The chart below details the changes in the recommended contribution from the prior valuation to the current year's valuation.

The chart reconciles the contribution rate from the prior valuation to the amount determined in this valuation.

## CHART 14 Reconciliation of Average Recommended Employer Contribution Rate from June 30, 2015 to June 30, 2016 (Dollar Amounts in Thousands)

	Contribution Rate	Estimated Annual Dollar Cost <sup>(1)</sup>
Average Recommended Contribution Rate as of June 30, 2015 (After Reflecting Pick Up of Additional Normal Cost by Legacy Members for 2016/2017)	22.29%	\$209,184
Effect of investment losses	0.48%	4,505
Effect of actual contributions greater than expected	-0.09%	(845)
Effect of actual individual salary increases less than expected	-0.30%	(2,816)
Effect of decrease in UAAL rate from higher than expected increase in total payroll	-0.10%	(939)
Effect of actual COLA increases less than expected	-0.21%	(1,971)
Effect of Orangevale and Rep Units 8, 18 and 29 paying additional Normal Cost	-0.38%	(3,541)
Effect of member pick up of additional Normal Cost in 2017/2018	-0.63%	(5,933)
Effect of reflecting Board's recent action on allocation of Normal Cost and adjustment of Board provided future COLA contribution offset for legacy members	0.03%	276
Effect of demographic changes and other actuarial (gains)/losses(2)	0.04%	<u>459</u>
Subtotal	-1.16%	(10,805)
Average Recommended Contribution Rate as of June 30, 2016 (After Reflecting Pick Up of Additional Normal Cost by Legacy Members for 2017/2018)	21.13%	\$198,379

<sup>(1)</sup> Based on June 30, 2016 projected annual payroll of \$938,555,000.

<sup>(2)</sup> Includes the effect of the change in aggregate Normal Cost due to the shift in proportion of payroll among Rep Units during the phase-in period for legacy members to pay 50% of the Normal Cost.



#### SECTION 2: Valuation Results for the Sacramento County Employees' Retirement System

The member contribution rates as of June 30, 2016 are based on all of the data described in the previous sections, the actuarial assumptions described in Section 4, and the Plan provisions adopted at the time of preparation of the Actuarial Valuation. They include all changes affecting future costs, adopted benefit changes, actuarial gains and losses and changes in the actuarial assumptions.

# Reconciliation of Recommended Contribution Rate The chart below details the changes in the recommended member contribution rate from the prior valuation to the current year's valuation.

The chart reconciles the member contribution rate from the prior valuation to the amount determined in this valuation.

## CHART 15 Reconciliation of Average Recommended Member Contribution Rate from June 30, 2015 to June 30, 2016 (Dollar Amounts in Thousands)

	Contribution Rate	Estimated Amount <sup>(1)</sup>
Average Recommended Contribution Rate as of June 30, 2015 (After Reflecting Pick Up of Additional Normal Cost by Legacy Members for 2016/2017)	8.88%(2)	\$83,328
Effect of reduction in COLA offset reserve	0.03%	282
Effect of Orangevale and Rep Units 8, 18 and 29 paying additional Normal Cost	0.39%	3,671
Effect of member pick up of additional Normal Cost in 2017/2018	0.65%	6,090
Effect of demographic changes <sup>(3)</sup>	<u>0.11%</u>	<u>1,048</u>
Subtotal	1.18%	11,091
Average Recommended Contribution Rate as of June 30, 2016 (After Reflecting Pick Up of Additional Normal Cost by Legacy Members for 2017/2018)	10.06%(2)	\$94,419

<sup>(1)</sup> Based on June 30, 2016 projected annual payroll of \$938,555,000.



<sup>(2)</sup> Rates have been adjusted to reflect a reserve available to reduce part of the COLA contributions.

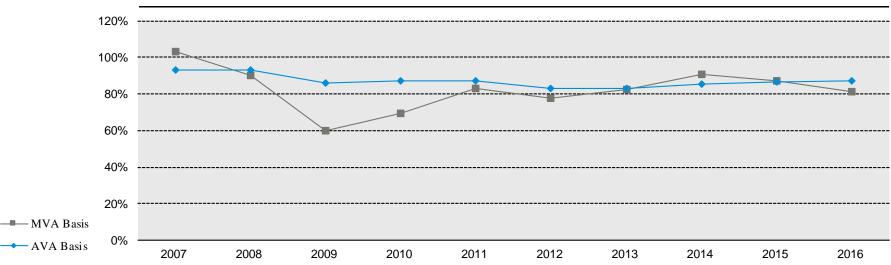
Includes the effect of the change in aggregate Normal Cost due to the shift in proportion of payroll among Rep Units during the phase-in period for legacy members to pay 50% of the Normal Cost.

#### E. FUNDED RATIO

A critical piece of information regarding the Plan's financial status is the funded ratio. This ratio compares the actuarial value of assets and market value of assets to the actuarial accrued liabilities of the plan. High ratios indicate a well-funded plan that is well positioned to pay benefits when they are due. Lower ratios may indicate recent changes to benefit structures, funding of the plan below actuarial requirements, poor asset performance, or a variety of other changes.

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

CHART 16 Funded Ratio for Plan Years Ending June 30, 2007 – 2016





#### SECTION 2: Valuation Results for the Sacramento County Employees' Retirement System

CHART 17 Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets <sup>(1)</sup> (a)	Actuarial Accrued Liability (AAL) <sup>(1)</sup> (b)	Unfunded/ (Overfunded) AAL (UAAL) (b) - (a)	Funded Ratio (%) (a) / (b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll (%) [(b) - (a)] / (c)
6/30/2007	\$5,406,461,000	\$5,788,336,000	\$381,875,000	93.4	\$832,484,000	45.9
6/30/2008	5,930,758,000	6,363,355,000	432,597,000	93.2	902,971,000	47.9
6/30/2009	5,730,215,000	6,661,993,000	931,778,000	86.0	968,130,000	96.2
6/30/2010	6,216,994,000	7,090,497,000	873,503,000	87.7	912,644,000	95.7
6/30/2011	6,420,824,000	7,382,897,000	962,073,000	87.0	880,766,000	109.2
6/30/2012	6,529,895,000	7,838,223,000	1,308,328,000	83.3	875,672,000	149.4
6/30/2013	6,797,757,000	8,210,980,000	1,413,223,000	82.8	877,657,000	161.0
6/30/2014	7,312,993,000	8,580,928,000	1,267,935,000	85.2	879,999,000	144.1
6/30/2015	7,838,825,000	9,028,679,000	1,189,854,000	86.8	897,341,000	132.6
6/30/2016	8,236,402,000	9,436,090,000	1,199,688,000	87.3	938,555,000	127.8

<sup>(1)</sup> Includes contingency reserve and other non-valuation reserves.



#### F. VOLATILITY RATIOS

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

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

For SCERS, the current AVR is 8.2. This means that a 1% asset gain/(loss) (relative to the assumed investment return) translates to 8.2% of one-year's payroll. Since SCERS amortizes actuarial gains and losses over a period of 20 years as of June 30, 2016, there would be a 0.6% of payroll decrease/(increase) in the required contribution for each 1% asset gain/(loss).

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

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

For SCERS, the current LVR is 10.1. This is about 23% higher than the AVR. Therefore, we would expect that contribution volatility will increase over the long-term.

CHART 19
Volatility Ratios for Years Ended June 30, 2008 – 2016

This chart shows how the asset and liability volatility ratios have varied over time.

	Asset Vo	latility Rati	<u>os</u>	<b>Liability Vo</b>	latility Rati	<u>os</u>
Year Ended June 30	Miscellaneous	Safety	Total	Miscellaneous	Safety	Total
2008	5.3	10.0	6.4	5.9	11.3	7.0
2009	3.8	7.4	4.6	5.7	11.3	6.9
2010	4.5	9.1	5.5	6.4	13.4	7.8
2011	5.8	11.6	7.0	6.9	14.0	8.4
2012	5.8	11.0	6.9	7.5	14.5	9.0
2013	6.6	11.7	7.7	7.9	14.6	9.4
2014	7.6	13.2	8.9	8.1	15.2	9.8
2015	7.5	13.0	8.8	8.4	15.8	10.1
2016	7.0	12.2	8.2	8.4	15.7	10.1



SECTION 3: Supplemental Information for the Sacramento County Employees' Retirement System

EXHIBIT A

Table of Plan Coverage
i. Miscellaneous Tier 1

	Year Ende	Year Ended June 30		
Category	2016	2015	— Change From Prior Year	
Active members in valuation				
Number	83	104	-20.2%	
Average age	60.7	59.8	N/A	
Average service	34.5	33.9	N/A	
Projected total compensation <sup>(1)</sup>	\$6,591,339	\$8,193,946	-19.6%	
Projected average compensation	\$79,414	\$78,788	0.8%	
Account balances	\$13,179,286	\$16,664,391	-20.9%	
Total active vested members	83	104	-20.2%	
Vested terminated members				
Number <sup>(2)</sup>	48	63	-23.8%	
Average age	64.3	63.1	N/A	
Retired members				
Number in pay status	2,894	2,988	-3.1%	
Average age	74.7	74.3	N/A	
Average monthly benefit	\$3,482	\$3,339	4.3%	
Disabled members				
Number in pay status	173	191	-9.4%	
Average age	75.7	75.3	N/A	
Average monthly benefit	\$2,185	\$2,127	2.7%	
Beneficiaries				
Number in pay status	762	768	-0.8%	
Average age	77.4	77.2	N/A	
Average monthly benefit	\$1,770	\$1,666	6.2%	

<sup>(1)</sup> Projected compensation for the June 30, 2016 valuation was calculated by increasing the annualized compensation earned during 2015-2016 by 3.50%.



<sup>(2)</sup> Includes terminated members due a refund of contributions.

SECTION 3: Supplemental Information for the Sacramento County Employees' Retirement System

EXHIBIT A

Table of Plan Coverage
ii. Miscellaneous Tier 2

	Year Ende	Year Ended June 30		
Category	2016	2015	– Change From Prior Year	
Active members in valuation				
Number	62	68	-8.8%	
Average age	55.2	54.8	N/A	
Average service	25.3	24.7	N/A	
Projected total compensation <sup>(1)</sup>	\$4,375,098	\$4,676,113	-6.4%	
Projected average compensation	\$70,566	\$68,766	2.6%	
Account balances	\$4,981,868	\$5,322,023	-6.4%	
Total active vested members	62	68	-8.8%	
Vested terminated members				
Number <sup>(2)</sup>	170	185	-8.1%	
Average age	56.9	56.1	N/A	
Retired members				
Number in pay status	330	317	4.1%	
Average age	68.2	67.7	N/A	
Average monthly benefit	\$1,068	\$1,029	3.8%	
Disabled members				
Number in pay status	31	33	-6.1%	
Average age	65.8	65.4	N/A	
Average monthly benefit	\$931	\$895	4.0%	
Beneficiaries				
Number in pay status	53	46	15.2%	
Average age	69.3	69.2	N/A	
Average monthly benefit	\$730	\$684	6.7%	

<sup>(1)</sup> Projected compensation for the June 30, 2016 valuation was calculated by increasing the annualized compensation earned during 2015-2016 by 3.50%.



<sup>(2)</sup> Includes terminated members due a refund of contributions.

SECTION 3: Supplemental Information for the Sacramento County Employees' Retirement System

EXHIBIT A

Table of Plan Coverage
iii. Miscellaneous Tier 3

Category	Year End	Year Ended June 30		
	2016	2015	– Change From Prior Year	
Active members in valuation				
Number	7,746	8,238	-6.0%	
Average age	50.0	49.4	N/A	
Average service	15.3	14.5	N/A	
Projected total compensation <sup>(1),(2)</sup>	\$578,615,519	\$589,808,360	-1.9%	
Projected average compensation	\$74,699	\$71,596	4.3%	
Account balances	\$444,544,752	\$436,990,756	1.7%	
Total active vested members	7,548	7,922	-4.7%	
Vested terminated members				
Number <sup>(3)</sup>	2,343	2,357	-0.6%	
Average age	48.1	47.9	N/A	
Retired members				
Number in pay status	3,922	3,528	11.2%	
Average age	66.9	66.6	N/A	
Average monthly benefit	\$2,392	\$2,306	3.7%	
Disabled members				
Number in pay status	260	253	2.8%	
Average age	62.7	62.2	N/A	
Average monthly benefit	\$1,798	\$1,747	2.9%	
Beneficiaries				
Number in pay status	361	324	11.4%	
Average age	65.4	64.6	N/A	
Average monthly benefit	\$1,017	\$981	3.7%	

<sup>(1)</sup> Projected compensation for the June 30, 2016 valuation was calculated by increasing the annualized compensation earned during 2015-2016 by 3.50%.



<sup>(2)</sup> For members without a salary reported for the June 30, 2016 valuation, we have assigned them an annual salary of \$74,520.

<sup>(3)</sup> Includes terminated members due a refund of contributions.

SECTION 3: Supplemental Information for the Sacramento County Employees' Retirement System

EXHIBIT A

Table of Plan Coverage
iv. Miscellaneous Tier 4

	Year Ende		
Category	2016	2015	– Change From Prior Year
Active members in valuation			
Number	328	306	7.2%
Average age	41.7	40.6	N/A
Average service	3.3	2.7	N/A
Projected total compensation <sup>(1)</sup>	\$23,965,104	\$20,409,812	17.4%
Projected average compensation	\$73,064	\$66,699	9.5%
Account balances	\$5,348,557	\$3,777,051	41.6%
Total active vested members	10	8	25.0%
Vested terminated members			
Number <sup>(2)</sup>	63	51	23.5%
Average age	37.8	36.3	N/A
Retired members			
Number in pay status	2		N/A
Average age	57.8		N/A
Average monthly benefit	\$704		N/A
Disabled members			
Number in pay status			N/A
Average age			N/A
Average monthly benefit			N/A
Beneficiaries			
Number in pay status			N/A
Average age			N/A
Average monthly benefit			N/A

<sup>(1)</sup> Projected compensation for the June 30, 2016 valuation was calculated by increasing the annualized compensation earned during 2015-2016 by 3.50%.



<sup>(2)</sup> Includes terminated members due a refund of contributions.

SECTION 3: Supplemental Information for the Sacramento County Employees' Retirement System

# EXHIBIT A Table of Plan Coverage v. Miscellaneous Tier 5

	Year Ende	Year Ended June 30		
Category	2016	2015	Change From Prior Year	
Active members in valuation				
Number	2,144	1,377	55.7%	
Average age	37.3	37.3	N/A	
Average service	1.4	1.1	N/A	
Projected total compensation <sup>(1)</sup>	\$109,881,536	\$69,050,148	59.1%	
Projected average compensation	\$51,251	\$50,145	2.2%	
Account balances	\$12,509,733	\$5,816,818	115.1%	
Total active vested members	10	5	140.0%	
Vested terminated members				
Number <sup>(2)</sup>	221	129	71.3%	
Average age	37.3	39.1	N/A	
Retired members				
Number in pay status			N/A	
Average age			N/A	
Average monthly benefit			N/A	
Disabled members				
Number in pay status			N/A	
Average age			N/A	
Average monthly benefit			N/A	
Beneficiaries				
Number in pay status			N/A	
Average age			N/A	
Average monthly benefit			N/A	

<sup>(1)</sup> Projected compensation for the June 30, 2016 valuation was calculated by increasing the annualized compensation earned during 2015-2016 by 3.50%.



<sup>(2)</sup> Includes terminated members due a refund of contributions.

SECTION 3: Supplemental Information for the Sacramento County Employees' Retirement System

EXHIBIT A

Table of Plan Coverage
vi. Safety Tier 1

	Year Ende	Year Ended June 30		
Category	2016	2015	– Change From Prior Year	
Active members in valuation				
Number	218	254	-14.2%	
Average age	50.4	49.9	N/A	
Average service	23.8	23.1	N/A	
Projected total compensation <sup>(1),(2)</sup>	\$28,634,501	\$32,288,171	-11.3%	
Projected average compensation	\$131,351	\$127,119	3.3%	
Account balances	\$43,645,257	\$46,182,258	-5.5%	
Total active vested members	218	254	-14.2%	
Vested terminated members				
Number <sup>(3)</sup>	77	93	-17.2%	
Average age	51.4	50.9	N/A	
Retired members				
Number in pay status	1,250	1,222	2.3%	
Average age	65.3	64.8	N/A	
Average monthly benefit	\$6,898	\$6,676	3.3%	
Disabled members				
Number in pay status	195	200	-2.5%	
Average age	65.3	64.7	N/A	
Average monthly benefit	\$4,495	\$4,375	2.7%	
Beneficiaries				
Number in pay status	320	311	2.9%	
Average age	67.6	67.0	N/A	
Average monthly benefit	\$2,944	\$2,849	3.3%	

<sup>(1)</sup> Projected compensation for the June 30, 2016 valuation was calculated by increasing the annualized compensation earned during 2015-2016 by 3.50%.



<sup>(2)</sup> For members without a salary reported for the June 30, 2016 valuation, we have assigned them an annual salary of \$131,445.

<sup>(2)</sup> Includes terminated members due a refund of contributions.

SECTION 3: Supplemental Information for the Sacramento County Employees' Retirement System

EXHIBIT A

Table of Plan Coverage
vii. Safety Tier 2

Category	Year End	Year Ended June 30		
	2016	2015	– Change From Prior Year	
Active members in valuation				
Number	1,337	1,370	-2.4%	
Average age	43.4	42.6	N/A	
Average service	15.2	14.3	N/A	
Projected total compensation <sup>(1), (2)</sup>	\$149,123,940	\$145,949,556	2.2%	
Projected average compensation	\$111,536	\$106,533	4.7%	
Account balances	\$143,337,770	\$125,287,345	14.4%	
Total active vested members	1,325	1,345	-1.5%	
Vested terminated members				
Number <sup>(3)</sup>	356	368	-3.3%	
Average age	41.8	41.4	N/A	
Retired members				
Number in pay status	312	278	12.2%	
Average age	64.3	64.5	N/A	
Average monthly benefit	\$4,646	\$4,639	0.2%	
Disabled members				
Number in pay status	57	52	9.6%	
Average age	52.7	52.3	N/A	
Average monthly benefit	\$3,115	\$3,108	0.2%	
Beneficiaries				
Number in pay status	37	30	23.3%	
Average age	54.7	56.7	N/A	
Average monthly benefit	\$2,110	\$2,240	-5.8%	

<sup>(1)</sup> Projected compensation for the June 30, 2016 valuation was calculated by increasing the annualized compensation earned during 2015-2016 by 3.50%.



<sup>(2)</sup> For members without a salary reported for the June 30, 2016 valuation, we have assigned them an annual salary of \$111,780.

<sup>(3)</sup> Includes terminated members due a refund of contributions.

SECTION 3: Supplemental Information for the Sacramento County Employees' Retirement System

EXHIBIT A

Table of Plan Coverage
viii. Safety Tier 3

	Year Ende	Year Ended June 30		
Category	2016	2015	– Change From Prior Year	
Active members in valuation				
Number	102	97	5.2%	
Average age	37.0	35.6	N/A	
Average service	5.2	4.2	N/A	
Projected total compensation <sup>(1)</sup>	\$9,767,462	\$8,708,725	12.2%	
Projected average compensation	\$95,759	\$89,781	6.7%	
Account balances	\$4,013,814	\$2,663,306	50.7%	
Total active vested members	30	18	66.7%	
Vested terminated members				
Number <sup>(2)</sup>	6	5	20.0%	
Average age	38.7	40.4	N/A	
Retired members				
Number in pay status			N/A	
Average age			N/A	
Average monthly benefit			N/A	
Disabled members				
Number in pay status	1		N/A	
Average age	38.1		N/A	
Average monthly benefit	\$3,002		N/A	
Beneficiaries				
Number in pay status			N/A	
Average age			N/A	
Average monthly benefit			N/A	

<sup>(1)</sup> Projected compensation for the June 30, 2016 valuation was calculated by increasing the annualized compensation earned during 2015-2016 by 3.50%.



<sup>(2)</sup> Includes terminated members due a refund of contributions.

SECTION 3: Supplemental Information for the Sacramento County Employees' Retirement System

EXHIBIT A

Table of Plan Coverage
ix. Safety Tier 4

Category	Year Ende	Year Ended June 30		
	2016	2015	– Change From Prior Year	
Active members in valuation				
Number	373	258	44.6%	
Average age	32.4	31.8	N/A	
Average service	1.8	1.4	N/A	
Projected total compensation <sup>(1)</sup>	\$27,600,372	\$18,255,550	51.2%	
Projected average compensation	\$73,996	\$70,758	4.6%	
Account balances	\$6,035,418	\$2,887,306	109.0%	
Total active vested members	10	10	0.0%	
Vested terminated members				
Number <sup>(2)</sup>	17	10	70.0%	
Average age	32.1	33.5	N/A	
Retired members				
Number in pay status			N/A	
Average age			N/A	
Average monthly benefit			N/A	
Disabled members				
Number in pay status			N/A	
Average age			N/A	
Average monthly benefit			N/A	
Beneficiaries				
Number in pay status			N/A	
Average age			N/A	
Average monthly benefit			N/A	

<sup>(1)</sup> Projected compensation for the June 30, 2016 valuation was calculated by increasing the annualized compensation earned during 2015-2016 by 3.50%.



<sup>(2)</sup> Includes terminated members due a refund of contributions.

**EXHIBIT B** 

#### i. Miscellaneous Tier 1

	Years of Service											
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39 4	0 & over		
Under 25										-		
										-		
25 - 29										-		
										-		
30 - 34										-		
35 - 39												
40 - 44										-		
45 - 49												
50 - 54	6							3	3			
	\$84,991							\$107,162	\$62,819	-		
55 - 59	31			1		2	3	12	12	1		
	74,303			\$48,146		\$46,586	\$60,919	86,861	74,815	\$39,222		
60 - 64	33					2	4	5	17	5		
	78,304					98,683	103,843	61,101	76,969	71,467		
65 - 69	13			1		1	1	1	5	۷		
	91,842			160,472		47,371	178,179	60,794	82,834	83,240		
70 & over										-		
										-		
Total	83			2		5	8	21	37	10		
	\$79,414			\$104,309		\$67,582	\$97,038	\$82,387	\$75,915	\$72,952		



**EXHIBIT B** 

#### ii. Miscellaneous Tier 2

	Years of Service											
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over		
Under 25										-		
										-		
25 - 29										-		
										-		
30 - 34										-		
										-		
35 - 39										-		
										-		
40 - 44										-		
										-		
45 - 49	11					6	5			-		
	\$68,708					\$75,156	\$60,972			-		
50 - 54	19			1	2	7	6	3		-		
	70,551			\$27,712	\$67,884	79,672	74,592	\$57,247		-		
55 - 59	24			2		2	16	4		-		
	73,153			72,941		70,461	73,618	72,745		-		
60 - 64	6			1			4	1		-		
	60,568			26,895			72,538	46,358		-		
65 - 69	2					2				-		
	79,872					79,872				-		
70 & over										-		
							-, -			-		
Total	62			4	2	17	31	8		-		
	\$70,566			\$50,122	\$67,884	\$77,018	\$71,628	\$63,635		-		



**EXHIBIT B** 

#### iii. Miscellaneous Tier 3

	Years of Service											
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over		
Under 25												
25 - 29	43	13	28	2								
	\$49,739	\$42,039	\$53,345	\$49,314								
30 - 34	402	36	245	114	7							
	64,064	57,484	65,652	61,738	\$80,238							
35 - 39	874	40	369	354	111							
	67,865	69,039	66,846	70,106	63,683							
40 - 44	1,104	20	276	472	302	33	1					
	74,952	60,747	71,112	76,004	76,247	\$88,027	\$99,747					
45 - 49	1,338	33	257	412	399	174	59	4				
	76,841	60,242	70,547	73,938	79,890	87,242	80,226	\$110,598				
50 - 54	1,454	24	204	343	357	249	229	45	3			
	78,753	59,670	70,699	73,392	76,955	87,068	87,194	90,729	\$91,696			
55 - 59	1,392	21	166	303	341	217	226	109	9			
	77,574	66,963	64,126	69,590	73,640	82,534	90,599	95,106	109,156			
60 - 64	814	9	122	206	217	105	98	54	3			
	74,146	47,232	68,680	69,040	72,493	81,704	82,443	85,254	111,779			
65 - 69	272	2	49	70	78	46	17	9	1			
	71,218	74,520	80,000	60,642	68,820	80,705	72,322	63,388	176,923			
70 & over	53	2	9	12	16	6	6	1	1			
	68,561	52,884	53,050	78,474	67,014	59,948	76,237	140,613	78,883			
Total	7,746	200	1,725	2,288	1,828	830	636	222	17			
1 Otal	\$74,699	\$60,493	\$68,317	\$71,660	\$75,103	\$84,730	\$86,544	\$91,021	\$108,743			



**EXHIBIT B** 

#### iv. Miscellaneous Tier 4

	Years of Service											
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over		
Under 25	2	2								-		
	\$39,395	\$39,395								-		
25 - 29	33	33								-		
	61,668	61,668										
30 - 34	73	70	3							-		
	69,911	70,165	\$63,983							-		
35 - 39	60	59	1									
	76,360	77,295	21,205							-		
40 - 44	48	47	1							-		
	71,267	71,849	43,928							-		
45 - 49	32	31	1							-		
	76,313	76,549	68,991							-		
50 - 54	36	34	1	1								
	71,318	72,437	42,887	\$61,691						-		
55 - 59	29	28	1							-		
	74,682	74,223	87,544									
60 - 64	13	13								-		
	94,032	94,032								-		
65 - 69	1	1										
	77,622	77,622								-		
70 & over	1	1								-		
	270,083	270,083								-		
Total	328	319	8	1						-		
	\$73,064	\$73,501	\$57,063	\$61,691						_		



**EXHIBIT B** 

#### v. Miscellaneous Tier 5

	Years of Service											
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over		
Under 25	109	109								-		
	\$41,546	\$41,546								-		
25 - 29	506	505	1							-		
	49,291	49,241	\$74,891									
30 - 34	483	482	1									
	52,402	52,353	75,876									
35 - 39	310	310										
	52,307	52,307										
40 - 44	256	256										
	52,041	52,041										
45 - 49	188	185	3									
	51,506	51,795	33,647									
50 - 54	134	133	1									
	52,958	52,828	70,321									
55 - 59	103	102	1									
	53,716	53,815	43,627									
60 - 64	41	39	1	1								
	57,993	58,685	12,506	\$76,497								
65 - 69	14	13	1									
	62,444	64,048	41,590									
70 & over												
										-		
Total	2,144	2,134	9	1						_		
	\$51,251	\$51,258	\$46,639	\$76,497								



**EXHIBIT B** 

vi. Safety Tier 1

	Years of Service											
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over		
Under 25										-		
										-		
25 - 29										-		
										-		
30 - 34										-		
35 - 39										-		
40 - 44	16				4	12				-		
	\$133,005				\$96,003	\$145,339				-		
45 - 49	100			1	6	53	40			-		
	138,475			\$118,225	123,569	140,864	\$138,053			-		
50 - 54	71			2	7	27	31	4		-		
	127,941			159,888	113,216	125,274	130,088	\$139,091		-		
55 - 59	25		1	1	6	3	14			-		
	116,673		\$107,739	176,193	111,466	115,139	115,619			-		
60 - 64	5				1	2	2			-		
	107,088				78,690	118,599	109,777			-		
65 - 69	1						1			-		
	122,840						122,840			-		
70 & over										-		
										-		
Total	218		1	4	24	97	88	4		-		
	\$131,351		\$107,739	\$153,549	\$111,059	\$135,823	\$130,863	\$139,091		-		



**EXHIBIT B** 

vii. Safety Tier 2

	Years of Service											
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over		
Under 25										-		
										-		
25 - 29	4		3	1						-		
	\$100,063		\$105,634	\$83,349								
30 - 34	111	6	48	57						-		
	104,428	\$87,656	100,543	109,465								
35 - 39	316	3	54	200	57	2						
	105,093	69,219	99,947	103,200	\$119,248	\$83,698						
40 - 44	405	1	29	126	217	29	3					
	113,008	83,886	99,524	105,786	115,430	138,749	\$132,421					
45 - 49	304	1	15	51	152	81	4					
	117,184	117,450	94,193	109,294	117,417	125,394	128,862					
50 - 54	135		10	23	40	39	22	1				
	115,881		110,762	110,249	114,089	122,246	115,687	\$124,325				
55 - 59	37		8	4	13	9	3					
	114,583		122,418	109,086	108,389	123,756	100,336					
60 - 64	24	1	4	8	7	2	1	1				
	106,625	122,839	107,774	121,062	92,554	98,769	92,500	98,658				
65 - 69	1		1									
	87,963		87,963									
70 & over												
Total	1,337	12	172	470	486	162	33	2				
	\$111,536	\$88,147	\$101,426	\$105,971	\$115,871	\$126,093	\$116,707	\$111,492				



**EXHIBIT B** 

viii. Safety Tier 3

	Years of Service											
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over		
Under 25										-		
										-		
25 - 29	19	16	3							-		
	\$93,184	\$94,138	\$88,099							-		
30 - 34	33	23	9	1						-		
	91,907	91,781	89,793	\$113,846						-		
35 - 39	21	15	4	1	1					-		
	94,664	97,612	99,819	62,403	\$62,072					-		
40 - 44	10	8		1	1					-		
	105,266	107,596		75,373	116,517					-		
45 - 49	11	4	6	1						-		
	101,916	122,486	89,667	93,134						-		
50 - 54	3	2					1			-		
	67,377	73,337					\$55,457			-		
55 - 59	3	2	1							-		
	118,663	123,075	109,840							-		
60 - 64	2	2								-		
	122,120	122,120								-		
65 - 69										-		
										-		
70 & over										_		
										_		
Total	102	72	23	4	2		1			-		
	\$95,759	\$98,182	\$92,154	\$86,189	\$89,294		\$55,457			_		



**EXHIBIT B** 

ix. Safety Tier 4

	Years of Service											
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over		
Under 25	40	40								-		
	\$71,414	\$71,414								-		
25 - 29	163	163								-		
	73,046	73,046								-		
30 - 34	77	75	2							-		
	73,424	73,518	\$69,869									
35 - 39	34	31	3							-		
	71,521	70,666	80,355									
40 - 44	19	18	1									
	71,433	71,544	69,432									
45 - 49	11	9	2									
	79,570	79,695	79,009							-		
50 - 54	19	19								-		
	87,786	87,786										
55 - 59	8	7	1									
	83,666	91,808	26,672									
60 - 64	2	1	1									
	91,124	100,495	81,753									
65 - 69										_		
										-		
70 & over										-		
										-		
Total	373	363	10							-		
	\$73,996	\$74,060	\$71,668							_		



EXHIBIT C

Reconciliation of Member Data – June 30, 2015 to June 30, 2016

	Active Members	Vested Terminated Members <sup>(1)</sup>	Pensioners	Disableds	Beneficiaries	Total
Number as of June 30, 2015	12,072	3,261	8,333	729	1,479	25,874
New members	1,095	71	0	0	119	1,285
Terminations – with vested rights	-281	281	0	0	0	0
Contributions refunds	-95	-74	0	0	0	-169
Retirements	-406	-186	592	0	0	0
New disabilities	-7	-4	-11	22	0	0
Return to work	29	-29	0	0	0	0
Deaths	-11	-13	-204	-34	-70	-332
Data adjustments	-3	-6	0	0	5	-4
Number as of June 30, 2016	12,393	3,301	8,710	717	1,533	26,654

<sup>(1)</sup> Includes terminated members due a refund of member contributions.



EXHIBIT D
Summary Statement of Income and Expenses on an Actuarial Value Basis

	Year Ended J	une 30, 2016	Year Ended J	une 30, 2015
Contribution income:				
Employer contributions	\$209,020,000		\$222,959,000	
Employee contributions	77,494,000		68,143,000	
Net contribution income		\$286,514,000		\$291,102,000
Investment income:				
Interest, dividends and other income	\$158,454,000		\$157,110,000	
Recognition of capital appreciation	424,051,000		519,569,000	
Less investment and administrative fees	<u>-65,740,000</u>		<u>-67,292,000</u>	
Net investment income		516,765,000		609,387,000
Total income available for benefits		\$802,279,000		\$900,489,000
Less benefit payments:				
Benefits paid	-\$403,356,000		-\$372,369,000	
Withdrawal of contributions	<u>-2,346,000</u>		<u>-2,288,000</u>	
Net benefit payments		-\$405,702,000		-\$374,657,000
Change in reserve for future benefits		\$397,577,000		\$525,832,000

Note: Results may be slightly off due to rounding.



**EXHIBIT E**Summary Statement of Assets

	Year Ended J	lune 30, 2016	Year Ended June 30, 2015			
Cash equivalents		\$416,441,000		\$658,971,000		
Accounts receivable:						
Securities sold	\$113,982,000		\$51,263,000			
Accrued investment income	45,917,000		33,230,000			
Employee and employer contributions	8,073,000		<u>7,892,000</u>			
Total accounts receivable		167,972,000		92,385,000		
Investments:						
Equities	\$3,953,054,000		\$3,815,035,000			
Absolute return	724,682,000		773,662,000			
Opportunities	165,182,000		134,137,000			
Fixed income investments	1,555,857,000		1,470,797,000			
Real assets	973,077,000		1,210,739,000			
Securities lending collateral	422,520,000		320,650,000			
Total investments at market value		7,794,372,000		7,725,020,000		
Other assets		<u>378,000</u>		1,199,000		
Total assets		\$8,379,163,000		\$8,477,575,000		
Less accounts payable:						
Accounts payable and other liabilities	-\$38,485,000		-\$37,112,000			
Investment trades, mortgages, and warrants payable	-237,293,000		-240,999,000			
Securities lending liability	-422,520,000		-320,650,000			
Total accounts payable		-\$698,298,000		-\$598,761,000		
Net assets at market value		<u>\$7,680,865,000</u>		<u>\$7,878,814,000</u>		
Net assets at actuarial value		<u>\$8,236,402,000</u>		<u>\$7,838,825,000</u>		
Net assets at valuation value		\$8,169,906,000		\$7,767,116,000		

Note: Results may be slightly off due to rounding.



#### **EXHIBIT F**

#### **Actuarial Balance Sheet**

An overview of the Plan's funding is given by an Actuarial Balance Sheet. In this approach, we first determine the amount and timing of all future payments that will be made by the Plan for current participants. We then discount these payments at the valuation interest rate to the date of the valuation, thereby determining their present value. We refer to this present value as the "liability" of the Plan.

Second, we determine how this liability will be met. These actuarial "assets" include the net amount of assets already accumulated by the Plan, the present value of future member contributions, the present value of future employer Normal Cost contributions, and the present value of future employer amortization payments.

#### **Actuarial Balance Sheet (Dollar Amounts in Thousands)**

Assets	<u>Basic</u>	<u>Cola</u>	<u>Total</u>
1. Total valuation assets			
a. Valuation value assets	\$5,538,193	\$2,631,713	\$8,169,906
b. Balance of transfer to offset member COLA rate	0	19,861	19,861
c. Adjustment to 1a. for surplus/(deficit) for withdrawn employer (preliminary) <sup>(1)</sup>	-34,504	0	-34,504
d. Contingency Reserve	81,139	0	81,139
2. Present value of future contributions by members	398,467	116,258	514,725
3. Present value of future employer contributions for:			
a. Entry age Normal Cost	801,850	134,742	936,592
b. Unfunded actuarial accrued liability	<u>1,109,694</u>	89,994	1,199,688
4. Total current and future assets	\$7,894,839	\$2,992,567	\$10,887,406
Liabilities			
5. Present value of retirement allowances payable to present retired members	\$3,353,388	\$1,952,992	\$5,306,380
6. Present value of retirement allowances to be granted			
a. Active members	4,226,683	978,840	5,205,523
b. Inactive members with vested rights	268,133	60,735	328,868
7. Surplus/(deficit) for withdrawn employer (preliminary) <sup>(1)</sup>	-34,504	0	-34,504
8. Contingency Reserve	81,139	0	81,139
9. Total liabilities	\$7,894,839	\$2,992,567	\$10,887,406

<sup>(1)</sup> Based on the latest estimate available as of June 30, 2015 for Florin Fire adjusted with interest at the assumed rate of investment return to June 30, 2016. Note: Results may be slightly off due to rounding.



#### **EXHIBIT G**

Summary of Reported Asset Information as of June 30, 2016

#### Reserves

#### **Included in Valuation Value of Assets**

Employee reserve	\$758,437,459
Employer reserve	2,722,084,072
Retiree reserve	4,658,693,869
Retiree death benefit reserve	<u>16,047,451</u>
Subtotal: Preliminary Valuation Value of Assets <sup>(1)</sup>	\$8,155,262,851

#### **Not Included in Valuation Value of Assets**

Contingency Reserve\$81,139,092Subtotal: Actuarial Value of Assets\$8,236,401,943Market stabilization reserve(555,536,943)Total Market Value of Assets\$7,680,865,000



<sup>(1)</sup> Please note that the final Valuation Value of Assets (i.e. \$8,169,905,606) is calculated by taking the preliminary Valuation Value of Assets and adjusting for the balance of transfer to offset member COLA rate and for the surplus/(deficit) for the withdrawn employer.

EXHIBIT G
Summary of Reported Asset Information as of June 30, 2016 (Continued) – Change in Reserves

	Balance at 06/30/2015	Interest Credited	Contributions	Benefits	Transfers	Balance at 06/30/2016
Employee Reserve	\$726,980,210	\$9,656,607	\$77,493,671	\$(2,346,060)	\$(53,346,969)	\$758,437,459
Employer Reserve	2,621,588,317	183,261,332	209,020,162	(352,047)	(291,433,692)	2,722,084,072
Retiree Reserve	4,393,326,559	322,719,333	0	(402,132,684)	344,780,661	4,658,693,869
Death Benefit Reserve	15,790,702	<u>1,127,982</u>	<u>0</u>	(871,233)	<u>0</u>	16,047,451
Subtotal	\$7,757,685,788	\$516,765,254	\$286,513,833	\$(405,702,024)	\$0	\$8,155,262,851
Contingency Reserve	\$81,139,092	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	\$81,139,092
Subtotal	\$81,139,092	\$0	\$0	\$0	\$0	\$81,139,092
Total Allocated Reserves	\$7,838,824,880	\$516,765,254	\$286,513,833	\$(405,702,024)	\$0	\$8,236,401,943
Market Stabilization Reserve	\$39,989,120	\$(595,526,063)	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	\$(555,536,943)
Net Market Value of Assets	\$7,878,814,000	<u>\$(78,760,809)</u>	\$286,516,833	\$(405,702,024)	<u>\$0</u>	<u>\$7,680,865,000</u>

Note: Results may be slightly off due to rounding.



**EXHIBIT G** 

#### Summary of Reported Asset Information as of June 30, 2016 (Continued) - Summary of Earnings

	Per Excess
	<b>Earnings Policy</b>
Earnings from July 1, 2015 to June 30, 2016	\$(78,760,809)
Contingency Reserve <sup>(1)</sup>	<u>N/A</u>
Subtotal:	\$(78,760,809)
Amounts Credited for:	
Market Stabilization Reserve	\$595,526,063
Regular Interest Crediting	<u>(516,765,254)</u>
Subtotal	\$(78,760,809)
Net Earnings	\$0
Amount Credited Under Excess Earnings Policy for:	
Contingency Reserve <sup>(1)</sup>	\$0
Board Provided Supplemental Benefits	0
Amount Over Reserved Benefits	0
Employer Reserves	0
Member Future COLA Contribution Offset	<u>0</u>
Subtotal	\$0
Remaining Excess Earnings	<u>\$0</u>

The Board has decided to carry over the entire balance of \$81,139,092 in the Contingency Reserve on June 30, 2015 unchanged (i.e., at \$81,139,092) to June 30, 2016.



## EXHIBIT H Development of Unfunded/(Overfunded) Actuarial Accrued Liability for Year Ended June 30, 2016

1.	Unfunded actuarial accrued liability at beginning of year	\$1,189,854,000
2.	Total Normal Cost	193,303,000
3.	Expected employer and member contributions	-281,603,000
4.	Interest	86,287,000
5.	Expected unfunded actuarial accrued liability	\$1,187,841,000
6.	Actuarial (gain)/loss due to all changes:	
	(a) Investment return	\$62,151,000
	(b) Actual contributions greater than expected <sup>(1),(2)</sup>	-11,160,000
	(c) Salary increases less than expected <sup>(2)</sup>	-38,804,000
	(d) COLA increases less than expected <sup>(2)</sup>	-26,690,000
	(e) Other experience loss <sup>(2)</sup>	26,350,000
	(f) Total changes	<u>\$11,847,000</u>
7.	Unfunded actuarial accrued liability at end of year	<u>\$1,199,688,000</u>

<sup>(1)</sup> Due to the one-year lag in implementation of the contribution rates determined in the June 30, 2015 valuation.



The sum of 6(b) through 6(e) is equal to the net gain of \$50.3 million shown in Section 2, Chart 9.

#### **EXHIBIT I**

#### **Section 415 Limitations**

Section 415 of the Internal Revenue Code (IRC) specifies the maximum benefits that may be paid to an individual from a defined benefit plan and the maximum amounts that may be allocated each year to an individual's account in a defined contribution plan.

A qualified pension plan may not pay benefits in excess of the Section 415 limits. The ultimate penalty for noncompliance is disqualification: active participants could be taxed on their vested benefits and the IRS may seek to tax the income earned on the plan's assets.

In particular, Section 415(b) of the IRC limits the maximum annual benefit payable at the Normal Retirement Age to a dollar amount indexed for inflation. That limit is \$210,000 for 2015 and 2016. Normal Retirement Age for these purposes is age 62. These are the limits in simplified terms. They must be adjusted based on each participant's circumstances, for such things as age at retirement, form of benefits chosen and after tax contributions.

Benefits for members in non-CalPEPRA tiers in excess of the limits may be paid through a qualified governmental excess plan that meets the requirements of Section 415(m).

Legal Counsel's review and interpretation of the law and regulations should be sought on any questions in this regard.

Contributions rates determined in this valuation have not been reduced for the Section 415 limitations. Actual limitations will result in gains as they occur.



#### **EXHIBIT J**

#### **Definitions of Pension Terms**

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

## Assumptions or Actuarial Assumptions:

The estimates on which the cost of the Plan is calculated including:

- (a) <u>Investment return</u> the rate of investment yield that the Plan will earn over the long-term future;
- (b) <u>Mortality rates</u> the death rates of employees and pensioners; life expectancy is based on these rates;
- (c) <u>Retirement rates</u> the rate or probability of retirement at a given age; and
- (d) <u>Turnover rates</u> the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.

#### Normal Cost:

The amount of contributions required to fund the level cost allocated to the current year of service.

### Actuarial Accrued Liability For Actives:

The equivalent of the accumulated normal costs allocated to the years before the valuation date.

### Actuarial Accrued Liability For Pensioners:

The single sum value of lifetime benefits to existing pensioners. This sum takes account of life expectancies appropriate to the ages of the pensioners and the interest that the sum is expected to earn before it is entirely paid out in benefits.

## **Unfunded Actuarial Accrued Liability:**

The extent to which the actuarial accrued liability of the Plan exceeds (or is exceeded by) the assets of the Plan. There is a wide range of approaches to recognizing the unfunded or overfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.



Amortization of the Unfunded (Overfunded) Actuarial Accrued Liability:

Payments made over a period of years equal in value to the Plan's unfunded or

overfunded actuarial accrued liability.

**Investment Return:** The rate of earnings of the Plan from its investments, including interest, dividends and

capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the market value gains and losses to avoid significant swings in the value of assets

from one year to the next.



#### SECTION 4: Reporting Information for the Sacramento County Employees' Retirement System

EX	HIBIT I				
Su	Summary of Actuarial Valuation Results				
Th	e valuation was made with respect to the following data supplied to us:				
1.	Retired members as of the valuation date (including 1,533 beneficiaries in pay status)		10,960		
2.	Members inactive during year ended June 30, 2016 with vested rights		3,301		
3.	Members active during the year ended June 30, 2016		12,393		
Th	e actuarial factors as of the valuation date are as follows (amounts in 000s):  Normal Cost		\$200,615		
2.	Present value of future benefits		10,840,771		
3.	Present value of future Normal Costs		1,471,177		
	Actuarial accrued liability <sup>(1)</sup>				
4.			9,369,594		
4.	Retired members and beneficiaries	\$5,306,380	9,369,594		
4.	Retired members and beneficiaries  Inactive members with vested rights	\$5,306,380 328,868	9,369,594		
4.			9,369,594		
<ol> <li>4.</li> <li>5.</li> </ol>	Inactive members with vested rights	328,868	9,369,594 8,169,906		

<sup>(1)</sup> Excludes non-valuation reserves and designations.



#### SECTION 4: Reporting Information for the Sacramento County Employees' Retirement System

#### **EXHIBIT I (continued)**

#### **Summary of Actuarial Valuation Results**

	e determination of the recommended average employer contribution is as follows	<b>D</b> .II. 4	0/ CD U
(ar	nounts in 000s):	Dollar Amount	% of Payroll
1.	Total Normal Cost	\$200,615	21.37%
2.	Expected employee contributions	<u>-94,419</u>	<u>-10.06%</u>
3.	Employer Normal Cost: $(1) + (2)$	\$106,196	11.31%
4.	Amortization of unfunded actuarial accrued liability	92,183	9.82%
5.	Total recommended average employer contribution: $(3) + (4)$	\$198,379	21.13%
6.	Projected compensation	\$938,555	



#### SECTION 4: Reporting Information for the Sacramento County Employees' Retirement System

EXHIBIT II
Schedule of Employer Contributions

Plan Year Ended June 30	Annual Required Contributions	Actual Contributions	Percentage Contributed
2007	\$156,804,528	\$156,804,528	100.0%
2008	167,054,356	167,054,356	100.0%
2009	177,011,005	177,011,005	100.0%
2010	167,141,893	167,141,893	100.0%
2011	182,920,751	182,920,751	100.0%
2012	179,098,469	179,098,469	100.0%
2013	189,663,720	189,663,720	100.0%
2014	210,503,324	210,503,324	100.0%
2015	222,959,365	222,959,365	100.0%
2016	209,020,000	209,020,000	100.0%



#### **EXHIBIT III**

#### **Actuarial Assumptions/Methods**

**Rationale for Assumptions:** The information and analysis used in selecting each assumption that has a significant

effect on this actuarial valuation is shown in the July 1, 2010 through June 30, 2013 Actuarial Experience Study and June 30, 2014 Economic Actuarial Assumptions

Reports both dated June 12, 2014.

**Economic Assumptions** 

**Net Investment Return:** 7.50%; net of administration and investment expenses.

**Employee Contribution** 

Crediting Rate<sup>1</sup>: 3.25% (assumed rate of inflation); compounded semi-annually.

**Cost-of-Living Adjustment** 

for Retirees:

Miscellaneous and Safety Tier 1 benefits are assumed to increase at 3.25% per year. Miscellaneous Tier 3, Tier 4 and Tier 5 and Safety Tier 2, Tier 3 and Tier 4 benefits are assumed to increase at 2.0% per year. Miscellaneous Tier 2 receive no COLA

increases.

**Increase in Section 7522.10** 

**Compensation Limit** 

Increase of 3.25% per year from the valuation date.

<sup>&</sup>lt;sup>1</sup> Current policy is to credit the member contribution account with interest up to the current 5-year Treasury rate, if such earnings are available. However, the difference in earnings between the 5-year Treasury rate and the target crediting rate will be applied to the other valuation reserves so that the overall valuation reserve target crediting rate is maintained at 7.50%.



#### **Demographic Assumptions**

#### **Post – Retirement Mortality Rates:**

Healthy: For Miscellaneous Members and Beneficiaries: RP-2000 Combined Healthy Mortality

Table projected with Scale BB to 2022.

For Safety Members: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2022 set back one year for males and set forward two years for females.

Disabled: For Miscellaneous Members: RP-2000 Disabled Retiree Mortality Table projected

with Scale BB to 2022 with no age adjustment for males and set forward three years

for females.

For Safety members: RP-2000 Combined Healthy Mortality Table projected with

Scale BB to 2022 set forward two years.

The mortality tables shown above were determined to contain sufficient provision appropriate to reasonably reflect future mortality improvement, based on a review of

the mortality experience in the June 30, 2013 Actuarial Experience Study.

Member Contribution Rates: For Miscellaneous members: RP-2000 Combined Healthy Mortality Table projected

with Scale BB to 2022 weighted 40% male and 60% female.

For Safety members: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2022 set back one year for males and set forward two years for females

weighted 70% male and 30% female.



SECTION 4: Reporting Information for the Sacramento County Employees' Retirement System

# Termination Rates Before Retirement: Rate (%)

Mortality

	Miscel	laneous	Sa	fety
Age	Male	Female	Male	Female
25	0.04	0.02	0.04	0.02
30	0.04	0.02	0.04	0.03
35	0.07	0.04	0.07	0.05
40	0.10	0.07	0.10	0.08
45	0.14	0.11	0.13	0.12
50	0.20	0.16	0.19	0.19
55	0.34	0.24	0.30	0.30
60	0.58	0.41	0.52	0.51
65	0.98	0.74	0.88	0.93

All Miscellaneous pre-retirement deaths are assumed to be non-duty. For Safety, 50% of pre-retirement deaths are assumed to be non-duty and the rest are assumed to be duty.



## **Termination Rates Before Retirement (continued):**

Rate (%)
Disability

Diodiomity		
Miscellaneous <sup>(1)</sup>	Safety <sup>(2)</sup>	
0.00	0.10	
0.01	0.10	
0.03	0.16	
0.05	0.26	
0.08	0.45	
0.16	0.61	
0.26	0.80	
0.36	1.26	
0.52	2.10	
	0.00 0.01 0.03 0.08 0.16 0.26 0.36	Miscellaneous <sup>(1)</sup> Safety <sup>(2)</sup> 0.00         0.10           0.01         0.10           0.03         0.16           0.05         0.26           0.08         0.45           0.16         0.61           0.26         0.80           0.36         1.26

<sup>(1) 25%</sup> of Miscellaneous disabilities are assumed to be duty disabilities. The other 75% are assumed to be non-duty disabilities.



<sup>&</sup>lt;sup>(2)</sup> 90% of Safety disabilities are assumed to be duty disabilities. The other 10% are assumed to be non-duty disabilities.

#### **Termination Rates Before Retirement (continued):**

Rate (%)
Withdrawal (< 5 Years of Service)<sup>(1)</sup>

Years of Service	Miscellaneous	Safety
0	13.00	8.00
1	8.00	6.00
2	7.00	5.00
3	6.00	4.00
4	5.50	3.00

#### Withdrawal (5+ Years of Service)(2)

Age	Miscellaneous	Safety
20	5.00	2.50
25	5.00	2.50
30	4.70	2.50
35	4.20	2.20
40	3.40	1.85
45	2.70	1.60
50	2.20	1.50
55	1.85	1.50
60	1.30	1.50
65	1.00	0.00

<sup>(1) 75%</sup> of the Miscellaneous members and 50% of the Safety members are assumed to elect a refund of contribution balance while the remaining 25% and 50% of Miscellaneous and Safety members, respectively, are assumed to elect a deferred retirement benefit. No withdrawal is assumed after a member is assumed to retire.



<sup>(2) 50%</sup> of the Miscellaneous members and 20% of the Safety members are assumed to elect a refund of contribution balance while the remaining 50% and 80% of Miscellaneous and Safety members, respectively, are assumed to elect a deferred retirement benefit. No withdrawal is assumed after a member is assumed to retire.

SECTION 4: Reporting Information for the Sacramento County Employees' Retirement System

# **Retirement Rates:**

Rate (%)

				11410 (70)			
Age	Miscellaneous Tier 1	Miscellaneous Tiers 2 & 3	Miscellaneous Tier 4	Miscellaneous Tier 5	Safety Tiers 1 & 2	Safety Tier 3	Safety Tier 4
45	0.00	0.00	0.00	0.00	2.00	1.50	0.00
46	0.00	0.00	0.00	0.00	2.00	1.50	0.00
47	0.00	0.00	0.00	0.00	2.00	1.50	0.00
48	0.00	0.00	0.00	0.00	2.00	1.50	0.00
49	0.00	0.00	0.00	0.00	5.00	4.00	0.00
50	6.00	2.00	2.00	0.00	25.00	10.00	15.00
51	4.00	2.00	2.00	0.00	18.00	12.00	10.50
52	4.00	2.00	2.00	4.00	18.00	14.00	12.00
53	4.00	3.00	2.00	1.50	22.00	16.00	14.00
54	7.00	4.00	3.00	2.50	22.00	18.00	15.50
55	10.00	6.00	4.00	3.50	22.00	50.00	40.00
56	15.00	6.00	5.00	4.50	25.00	25.00	25.00
57	16.00	8.00	6.00	5.50	25.00	25.00	25.00
58	18.00	12.00	7.00	6.50	25.00	25.00	25.00
59	22.00	14.00	8.00	7.50	30.00	30.00	25.00
60	28.00	14.00	9.00	8.50	45.00	45.00	45.00
61	30.00	14.00	10.00	9.50	55.00	55.00	55.00
62	35.00	25.00	18.00	17.00	70.00	70.00	70.00
63	35.00	30.00	16.00	15.00	70.00	70.00	70.00
64	40.00	35.00	20.00	19.00	70.00	70.00	70.00
65	50.00	40.00	25.00	24.00	100.00	100.00	100.00
66	45.00	45.00	20.00	20.00	100.00	100.00	100.00
67	45.00	45.00	20.00	20.00	100.00	100.00	100.00
68	50.00	50.00	30.00	30.00	100.00	100.00	100.00
69	60.00	60.00	40.00	40.00	100.00	100.00	100.00
70	100.00	100.00	100.00	100.00	100.00	100.00	100.00



Retirement Age and Benefit for Deferred Vested Members:

For deferred vested members, we make the following retirement assumption:

Miscellaneous Age: 59

Safety Age: 53

We assume that 40% of future Miscellaneous and 50% of future Safety deferred vested members will continue to work for a reciprocal employer. For reciprocals, we assume 4.50% and 5.25% compensation increases per annum, respectively.

**Future Benefit Accruals:** 

1.0 year of service per year for the full-time employees. Continuation of current

partial service accrual for part-time employees.

Unknown Data for Members:

Same as those exhibited by members with similar known characteristics. If not

specified, members are assumed to be male.

**Percent Married:** 

80% of male members; 55% of female members.

**Age of Spouse:** 

Female (or male) spouses are 3 years younger (or older) than their spouses.

Service from Unused Sick Leave Conversion:

The following assumptions for service converted from unused sick leave as a

percentage of service at retirement are used:

Service Retirements:

Miscellaneous: 1.50% Safety: 2.25%

Disability Retirements:

Miscellaneous: 0.00% Safety: 0.25%

Pursuant to Section 31641.01, the cost of this benefit will be charged only to

employers and will not affect member contribution rates.



## **Salary Increases:**

## Annual Rate of Compensation Increase (%)

Inflation: 3.25%, plus "across the board" salary increases of 0.25% per year; plus the following merit and promotional increases.

Years of Service	Miscellaneous	Safety
0-1	5.00	8.00
1-2	4.50	7.00
2-3	3.75	6.00
3-4	3.50	5.00
4-5	3.00	4.00
5-6	2.50	3.50
6-7	2.25	3.25
7-8	2.00	3.00
8-9	1.75	2.75
9-10	1.00	2.00
10 or more	1.00	1.75

Increase in Section 7522.10 Compensation Limit

Increase of 3.25% per year from the valuation date.



#### **Actuarial Methods**

**Actuarial Value of Assets:** The market value of assets less unrecognized returns from the last few years starting

July 1, 2008. Unrecognized return is equal to the difference between actual and expected returns on a market value basis and is recognized over a seven-year period. The deferred return is further adjusted, if necessary, so that the actuarial value of assets will stay within 30% of the market value of assets. Deferred gains and losses as of June 30, 2013 have been combined and will be recognized in equal amounts over a

six-year period starting July 1, 2013.

Valuation Value of Assets: Actuarial value of assets reduced by the value of the non-valuation reserves and

designations.

**Actuarial Cost Method:** Entry Age Actuarial Cost Method. Entry Age is the age at the member's hire date.

Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and

are based on costs allocated as a level percentage of compensation.

**Amortization Policy:** The UAAL established as a result of the Early Retirement Incentive Program for

LEMA members is amortized over a 10-year period beginning June 30, 2010. The balance of the UAAL as of June 30, 2012 shall be amortized separately from any

future changes in UAAL over a period of 23 years from June 30, 2012.

Any new UAAL as a result of actuarial gains or losses identified in the annual

valuation as of June 30 will be amortized over a period of 20 years.

Any new UAAL as a result of change in actuarial assumptions or methods will be

amortized over a period of 20 years.

The change in UAAL as a result of any plan amendments will be amortized over a period of 15 years and the change in UAAL resulting from retirement incentive

programs will be amortized over a period of up to 5 years.

Changes in Actuarial Methods:

Based on our letter dated August 11, 2016 titled "Options for Allocation of Normal Cost and Adjustment of Board Provided Member Future COLA Contribution Offset for Members in Non-PEPRA Tiers," we have allocated the Normal Cost to the Employers and applied the credit to 30-year members based on action taken by the

Board.



### **EXHIBIT IV**

## **Summary of Plan Provisions**

This exhibit summarizes the major provisions of the SCERS included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

Membership Eligibility:	Membership with SCERS usually begins with the employment by the County or member District as a permanent full-time or part-time employee as provided in the County Salary Resolution or the District's Salary Resolution.
Miscellaneous Tier 1	All Miscellaneous members hired prior to September 27, 1981.
Miscellaneous Tier 2 and Tier 3	All Miscellaneous members hired on or after September 27, 1981. Membership into Tier 2 or Tier 3 is determined by date of hire and by bargaining unit.
Miscellaneous Tier 4	All Miscellaneous members hired on or after January 1, 2012 as adopted by the County. Membership into Tier 4 is determined by date of hire.
Miscellaneous Tier 5	All Miscellaneous members hired on or after January 1, 2013.
Safety Tier 1 and Tier 2	Membership into Tier 1 or Tier 2 for Safety employee is determined by date of hire and by bargaining unit.
Safety Tier 3	All Safety members hired on or after January 1, 2012 as adopted by the County. Membership into Tier 3 is determined by date of hire.
Safety Tier 4	All Safety members hired on or after January 1, 2013.
Final Compensation for Benefit Determination:	
Miscellaneous and Safety Tier 1	Highest consecutive 1 year (12 months) of compensation earnable (§31462.1) (FAS1)
Miscellaneous Tier 2, Tier 3, and Tier 4 and Safety Tier 2 and Tier 3	Highest consecutive 3 years (36 months) of compensation earnable. (§31462) (FAS3)
Miscellaneous Tier 5 and Safety Tier 4	Highest consecutive 3 years (36 months) of pensionable compensation. (§7522.10(c), §7522.32 and §7522.34) (FAS3)



SECTION 4: Reporting Information for the Sacramento County Employees' Retirement System

Service:	Years of service. (Yrs)		
Service Retirement Eligibility:			
Miscellaneous			
Tiers 1, 2, 3 and 4	Age 50 with 10 years of service, or age 70 regardless of service, or after 30 years of service, regardless of age (§31672).		
Tier 5	Age 52 with 5 years of service (§7522.20(a)).		
Safety			
Tiers 1, 2 and 3	Age 50 with 10 years of service, or after 20 years of Safety service, regardless of age (§31663.25).		
Tier 4	Age 50 with 5 years of service (§7522.25(d)).		

# **Benefit Formula:**

Miscellaneous Plans	Retirement Age	Benefit Formula
Miscellaneous Tier 1 (§31676.14)	50	(1.48% x FAS1 - 1/3x 1.48% x \$350x 12) x Yrs
	55	(1.95% x FAS1 - 1/3x 1.95% x \$350x 12) x Yrs
	60	(2.44% x FAS1 - 1/3 x 2.44% x \$350 x 12) x Yrs
	62	(2.61% x FAS1 - 1/3 x 2.61% x \$350 x 12) x Yrs
	65 or later	(2.61% xFAS1 - 1/3x2.61% x\$350x12)xYrs
Miscellaneous Tier 2 and Tier 3	50	(1.48% xFAS3 – 1/3x1.48% x\$350x12)xYrs
(§31676.14)	55	(1.95% x FAS3 - 1/3x 1.95% x \$350x 12) x Yrs
	60	(2.44% x FAS3 - 1/3x2.44% x \$350x12) x Yrs
	62	(2.61% x FAS3 - 1/3x 2.61% x \$350x 12) x Yrs
	65 or later	(2.61% x FAS3 - 1/3 x 2.61% x \$350 x 12) x Yrs



SECTION 4: Reporting Information for the Sacramento County Employees' Retirement System

	Retirement Age	Benefit Formula
Miscellaneous Tier 4 (§31676.1)	50	(1.18% xFAS3 - 1/3x1.18% x\$350x12)xYrs
	55	(1.49% xFAS3 - 1/3x1.49% x\$350x12)xYrs
	60	(1.92% xFAS3 - 1/3x1.92% x\$350x12)xYrs
	62	(2.09% xFAS3 - 1/3x2.09% x\$350x12)xYrs
	65 or later	(2.43% xFAS3 - 1/3x2.43% x\$350x12)xYrs
Miscellaneous Tier 5	52	1.00%xFAS3xYrs
(§7522.20(a))	55	1.30%xFAS3xYrs
	60	1.80%xFAS3xYrs
	62	2.00%xFAS3xYrs
	65	2.30%xFAS3xYrs
	67 or later	2.50%xFAS3xYrs
Safety Plans	Retirement Age	Benefit Formula
Safety Plans Safety Tier 1 (§31664.1)	Retirement Age 50	<b>Benefit Formula</b> (3.00%xFAS1 – 1/3x3.00%x\$350x12)xYrs
•	_	
•	50	(3.00% x FAS1 - 1/3 x 3.00% x \$350 x 12) x Yrs
•	50 55	(3.00%xFAS1 - 1/3x3.00%x\$350x12)xYrs (3.00%xFAS1 - 1/3x3.00%.x\$350x12)xYrs
Safety Tier 1 (§31664.1)	50 55 60 or later	(3.00%xFAS1 - 1/3x3.00%x\$350x12)xYrs (3.00%xFAS1 - 1/3x3.00%.x\$350x12)xYrs (3.00%xFAS1 - 1/3x3.00%x.\$350x12)xYrs
Safety Tier 1 (§31664.1)	50 55 60 or later	(3.00%xFAS1 - 1/3x3.00%x\$350x12)xYrs (3.00%xFAS1 - 1/3x3.00%.x\$350x12)xYrs (3.00%xFAS1 - 1/3x3.00%x.\$350x12)xYrs (3.00%xFAS3 - 1/3x3.00%x\$350x12)xYrs
Safety Tier 1 (§31664.1)	50 55 60 or later 50 55	(3.00%xFAS1 - 1/3x3.00%x\$350x12)xYrs (3.00%xFAS1 - 1/3x3.00%.x\$350x12)xYrs (3.00%xFAS1 - 1/3x3.00%x.\$350x12)xYrs (3.00%xFAS3 - 1/3x3.00%x\$350x12)xYrs (3.00%xFAS3 - 1/3x3.00%x\$350x12)xYrs
Safety Tier 1 (§31664.1)  Safety Tier 2 (§31664.1)	50 55 60 or later 50 55 60 or later	(3.00%xFAS1 - 1/3x3.00%x\$350x12)xYrs (3.00%xFAS1 - 1/3x3.00%.x\$350x12)xYrs (3.00%xFAS1 - 1/3x3.00%x.\$350x12)xYrs (3.00%xFAS3 - 1/3x3.00%x\$350x12)xYrs (3.00%xFAS3 - 1/3x3.00%x\$350x12)xYrs (3.00%xFAS3 - 1/3x3.00%x\$350x12)xYrs (3.00%xFAS3 - 1/3x3.00%x\$350x12)xYrs
Safety Tier 1 (§31664.1)  Safety Tier 2 (§31664.1)	50 55 60 or later 50 55 60 or later	(3.00%xFAS1 - 1/3x3.00%x\$350x12)xYrs (3.00%xFAS1 - 1/3x3.00%.x\$350x12)xYrs (3.00%xFAS1 - 1/3x3.00%x.\$350x12)xYrs (3.00%xFAS3 - 1/3x3.00%x\$350x12)xYrs (3.00%xFAS3 - 1/3x3.00%x\$350x12)xYrs (3.00%xFAS3 - 1/3x3.00%x\$350x12)xYrs (3.00%xFAS3 - 1/3x3.00%x\$350x12)xYrs (2.29%xFAS3 - 1/3x2.29%x\$350x12)xYrs



	Retirement Age		Benefit Formula
Safety Tier 4 (§7522.25(d))	50	2.00%xFAS3xYrs	
	55	2.50%xFAS3xYrs	
	57 or later	2.70%xFAS3xYrs	

### **Maximum Benefit:**

/	
Miscellaneous Tier 1, Tier 2,	100% of Highest Average Compensation (§31676.14, §31676.1, §31664.1, §31664.2)
Tier 3 and Tier 4 and Safety	
Tier 1, Tier 2 and Tier 3	
Miscellaneous Tier 5 and	None
Safety Tier 4	

## Additional Benefit Information:

- > For Miscellaneous members of the following Districts, benefits accrued before June 29, 2003 will continue to be calculated using §31676.1.
  - 1. Fair Oaks Cemetery District
  - 2. Galt Arno Cemetery District



#### **Non-duty Disability:**

Miscellaneous and Safety Tier 1

Eligibility Five years of service (§31720).

Benefit Formula 1.5% per year of service for Miscellaneous Tier 1 and 1.8% per year of service for

Safety Tier 1. If the benefit does not exceed one-third of Final Compensation, the service is projected to 65 for Miscellaneous Tier 1 and 55 for Safety Tier 1, but the total benefit cannot be more than one-third of Final Compensation (§31727 and

§31727.2). The Service Retirement benefit is payable, if greater.

Miscellaneous Tier 2, Tier 3, Tier 4, and Tier 5 and Safety Tier 2, Tier 3

and Tier 4

Eligibility Five years of service (§31720).

Benefit Formula 20% of Final Compensation for the first five years of service plus 2% for each year of

additional service for a maximum of 40% of Final Compensation (§31727.7). The

Service Retirement benefit is payable, if greater.

# **Line-of-Duty Disability:**

All Members

Eligibility No age or service requirements (§31720).

Benefit Formula 50% of the Final Compensation or 100% of Service Retirement benefit, if greater

(§31727.4).



#### **Pre-Retirement Death:**

<u>All Members</u>

Eligibility No age or service requirements.

Benefit Refund of employee contributions with interest plus one month's compensation for

each year of service to a maximum of six month's compensation (§31781).

Death in Line-of-Duty 50% of Final Compensation or 100% of Service Retirement benefit, if greater,

payable to spouse or minor children (§31787).

OR

Vested Members

Eligibility Five years of service.

Benefit 60% of the greater of Service or Non-Duty Disability Retirement benefit payable to

surviving eligible spouse (§31765.1, §31781.1), in lieu of above.

Death in Line-of-Duty 50% of Final compensation or 100% of Service Retirement benefit, if greater, payable

to spouse or minor children (§31787).

#### **Death After Retirement:**

All Members

Service Retirement or

Non-Duty Disability 60% of member's unmodified allowance continued to eligible spouse (§31760.1). An

additional \$4,000 lump sum benefit is payable to member's beneficiary (§31789.3). An eligible spouse is a surviving spouse who was married to the member at least one

year prior to the date of retirement (§31760.1).

Line-of-Duty Disability 100% of member's allowance continued to eligible spouse (§31786). An additional

\$4,000 lump sum benefit is payable to member's beneficiary (§31789.3). An eligible spouse is a surviving spouse who was married to the member at least one year prior to

the date of retirement (§31760.1).



Withdrawal Benefits:	
Less than Five Years of Service	Refund of accumulated employee contributions with interest, or earned benefit at age 70 (§31628). Effective January 1, 2003, a member may also elect to leave their contributions on deposit in the retirement fund (§31629.5).
Five or More Years of Service	If contributions left on deposit, entitled to earned benefits commencing at any time after eligible to retire (§31700).

# Post-retirement Cost-of-Living Benefits:

Miscellaneous and Safety Tier 1 Future changes based on Consumer Price Index to a maximum of 4% per year, excess

"banked." (§31870.3)

Miscellaneous Tier 3, Tier 4 and Tier 5 and Safety Tier 2, Tier 3 and Tier 4 Future changes based on Consumer Price Index to a maximum of 2% per year, excess

"banked." (§31870)

Note: There is no cost-of-living benefit for Miscellaneous Tier 2.



**Member Contributions:** Please refer to Appendix A for the specific rates.

Miscellaneous Tier 1

Basic Provide for an average annuity at age 55 equal to 1/240 of FAS1. (§31621.3)

Cost-of-Living Provide for one-half of future Cost-of-Living costs.

Miscellaneous Tier 2

Basic Provide for an average annuity at age 55 equal to 1/240 of FAS3. (§31621.3)

Cost-of-Living None.

Miscellaneous Tier 3

Basic Provide for an average annuity at age 55 equal to 1/240 of FAS3. (§31621.3)

Cost-of-Living Provide for one-half of future Cost-of-Living costs.

Miscellaneous Tier 4

Basic Provide for an average annuity at age 60 equal to 1/120 of FAS3. (§31621)

Cost-of-Living Provide for one-half of future Cost-of-Living costs.

Miscellaneous Tier 5 50% of the total Normal Cost rate.

Safety Tier 1, Tier 2 and Tier 3

Basic Provide for an average annuity at age 50 equal to 1/100 of FAS1 (FAS3 for Tier 2 and

Tier 3). (§31639.25)

Cost-of-Living Provide for one-half of future Cost-of-Living costs.

Safety Tier 4 50% of the total Normal Cost rate.

Notes: The above rates are known as full rates. For members paying half rates prior to the June 30, 2015 valuation, their rates should be one-half of the rates provided in this report. Note that effective with the June 30, 2015 valuation, all members are reported as paying at least full-rate. In addition, for members entering the plan on or after January 1, 1975, they pay a rate based on a single entry age (§31621.11 and §31639.26).

After we completed the June 30, 2013 valuation, we were informed by SCERS that starting in 2014/2015, most County members in the legacy tiers have agreed to pick up either 1/3, 1/4, or 1/5 of the difference between the employee's then current Normal Cost and 50% of the total Normal Cost rate. The adjustments required for the employer and employee rates were subsequently provided to the System.



As those members have agreed to pick up an additional 1/3, 1/4, or 1/5 of the difference in the Normal Cost rate in 2015/2016, 2016/2017 and 2017/2018, we have reflected these adjustments in preparing the recommended rates for the June 30, 2014, June 30, 2015 and June 30, 2016 valuations, respectively.

For Rep Unit 26 Miscellaneous members, the member rates they have started to pay in 2015/2016 are 1% of payroll higher than the rates they paid in 2014/2015. In developing their rates for 2016/2017, we have added an additional 2% of payroll to the rates for 2015/2016.

For 2017/2018, all of the above members who have previously agreed to pay a higher Normal Cost rate are paying 50% of the total Normal Cost rate.

#### **Other Information:**

Safety Tier 1, Tier 2 and Tier 3 members with 30 or more years of service are exempt from paying member contributions. The same applies for Miscellaneous members hired on or before March 7, 1973.

#### **NOTE:**

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



# Appendix A Member Contribution Rates

Comparison of Member Rate<sup>(1)</sup> from June 30, 2015 and June 30, 2016 Valuation

Note: Contribution rates for most Miscellaneous County members and all Safety County members in the legacy tiers who have agreed to pick up an additional Normal Cost before and after the gross-up for the integration with Social Security can be found in Appendix C in Subsections B and C, respectively.

_		June 30, 201	16		June 30, 2013	5	
Miscellaneous	Basic	COLA	Total	Basic	COLA	Total	Increase/(Decrease) in Rate
Tier 1	3.70%	1.25%	4.95%	3.70%	1.05%	4.75%	0.20%
Tier 2	3.54%	0.00%	3.54%	3.54%	0.00%	3.54%	0.00%
Tier 3	3.54%	1.24%	4.78%	3.54%	1.22%	4.76%	0.02%
Tier 4	6.12%	1.12%	7.24%	6.12%	1.07%	7.19%	0.05%
Tier 5	6.68%	1.25%	7.93%	6.75%	1.27%	8.02%	-0.09%
Safety	Basic	COLA	Total	Basic	COLA	Total	Increase/(Decrease) in Rate
Tier 1 Tier 2 Tier 3 Tier 4	9.92% 9.43% 9.43% 10.61%	6.17% 2.99% 2.67% 2.53%	16.09% 12.42% 12.10% 13.14%	9.92% 9.43% 9.43% 10.59%	5.47% 2.94% 2.63% 2.52%	15.39% 12.37% 12.06% 13.11%	0.70% 0.05% 0.04% 0.03%

<sup>(1)</sup> Members who enter on or after 1/1/1975 contribute as indicated above and all others contribute the rate at their respective entry ages.



Appendix A

Member Contribution Rates (Continued)

# Miscellaneous Members' Contribution Rates from the June 30, 2016 Actuarial Valuation

		Basic Only					COLA Only				Total							
	First \$350 of Monthly Salary Salary in Excess of \$350				First \$350 o Ionthly Sala		Salary	in Excess o	of \$350	First \$350 of Monthly Salary			Salary in Excess of \$350					
Entry Age	Tier 1	Tier 2 & Tier 3	Tier 4	Tier 1	Tier 2 & Tier 3	Tier 4	Tier 1	Tier 3	Tier 4	Tier 1	Tier 3	Tier 4	Tier 1	Tier 3	Tier 4	Tier 1	Tier 3	Tier 4
16	1.79%			2.68%			0.61%			0.91%			2.40%			3.59%		
17	1.82%			2.73%			0.62%			0.93%			2.44%			3.66%		
18	1.85%			2.78%			0.63%			0.94%			2.48%			3.72%		
19	1.89%			2.83%			0.64%			0.96%			2.53%			3.79%		
20	1.91%			2.87%			0.65%			0.97%			2.56%			3.84%		
21	1.95%			2.92%			0.66%			0.99%			2.61%			3.91%		
22	1.98%			2.97%			0.67%			1.01%			2.65%			3.98%		
23	2.01%			3.02%			0.68%			1.02%			2.69%			4.04%		
24	2.05%			3.07%			0.69%			1.04%			2.74%			4.11%		
25	2.09%			3.13%			0.71%			1.06%			2.80%			4.19%		
26	2.12%			3.18%			0.72%			1.08%			2.84%			4.26%		
27	2.15%			3.23%			0.73%			1.09%			2.88%			4.32%		
28	2.19%			3.29%			0.75%			1.12%			2.94%			4.41%		
29	2.23%			3.34%			0.75%			1.13%			2.98%			4.47%		
30	2.27%			3.40%			0.77%			1.15%			3.04%			4.55%		
31	2.31%			3.46%			0.78%			1.17%			3.09%			4.63%		
32	2.34%			3.51%			0.79%			1.19%			3.13%			4.70%		
33	2.38%			3.57%			0.81%			1.21%			3.19%			4.78%		
34	2.43%			3.64%			0.82%			1.23%			3.25%			4.87%		
35	2.47%	2.36%	4.08%	3.70%	3.54%	6.12%	0.83%	0.82%	0.74%	1.25%	1.24%	1.12%	3.30%	3.18%	4.82%	4.95%	4.78%	7.24%
36	2.51%			3.76%			0.85%			1.27%			3.36%			5.03%		
37	2.55%			3.83%			0.87%			1.30%			3.42%			5.13%		
38	2.59%			3.89%			0.88%			1.32%			3.47%			5.21%		
39	2.64%			3.96%			0.89%			1.34%			3.53%			5.30%		
40	2.69%			4.03%			0.91%			1.37%			3.60%			5.40%		
41	2.74%			4.11%			0.93%			1.39%			3.67%			5.50%		
42	2.79%			4.18%			0.95%			1.42%			3.74%			5.60%		
43	2.84%			4.26%			0.96%			1.44%			3.80%			5.70%		
44	2.90%			4.35%			0.98%			1.47%			3.88%			5.82%		
45	2.96%			4.44%			1.01%			1.51%			3.97%			5.95%		
46	3.00%			4.50%			1.02%			1.53%			4.02%			6.03%		
47	3.04%			4.56%			1.03%			1.55%			4.07%			6.11%		
48	3.08%			4.62%			0.00%			0.00%			3.08%			4.62%		
49	3.11%			4.67%			1.05%			1.58%			4.16%			6.25%		
50	3.13%			4.70%			1.06%			1.59%			4.19%			6.29%		
51	3.15%			4.73%			1.07%			1.60%			4.22%			6.33%		
	0.10,0						1.07,70			1.00/0			,			0.0070		



# Appendix A Member Contribution Rates (Continued)

## Miscellaneous Members' Contribution Rates from the June 30, 2016 Actuarial Valuation

		Basic Only					COLA Only				Total							
		First \$350 of Ionthly Salary		Salary	in Excess of	f \$350		First \$350 o Ionthly Sala		Salary	in Excess o	of \$350		First \$350 of Ionthly Sala		Salary	in Excess o	of \$350
Entry Age	Tier 1	Tier 2 & Tier 3	Tier 4	Tier 1	Tier 2 & Tier 3	Tier 4	Tier 1	Tier 3	Tier 4	Tier 1	Tier 3	Tier 4	Tier 1	Tier 3	Tier 4	Tier 1	Tier 3	Tier 4
52	3.16%			4.74%			1.07%			1.61%			4.23%			6.35%		
53	3.15%			4.73%			1.07%			1.60%			4.22%			6.33%		
54	3.14%			4.71%			1.07%			1.60%			4.21%			6.31%		
55	3.14%			4.71%			1.07%			1.60%			4.21%			6.31%		
56	3.14%			4.71%			1.07%			1.60%			4.21%			6.31%		
57	3.14%			4.71%			1.07%			1.60%			4.21%			6.31%		
58	3.14%			4.71%			1.07%			1.60%			4.21%			6.31%		
59 &																		
Over	3.14%			4.71%			1.07%			1.60%			4.21%			6.31%		

Members who enter prior to 1/1/1975 contribute on the basis of their actual entry age and all others contribute on the basis of a single entry age of 35.

		Tier 5		
		All Eligible Pay <sup>(1)</sup>		
	Basic Only	COLA Only	Total	
All members	6.68%	1.25%	7.93%	

<sup>(1)</sup> It is our understanding that in the determination of pension benefits under the CalPEPRA formulas, the compensation that can be taken into account for 2016 is equal to \$117,020 (reference: Section 7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers after 2016 (reference: Section 7522.10(d)).



#### Appendix A

### **Member Contribution Rates (Continued)**

### Miscellaneous Members' Contribution Rates from the June 30, 2016 Actuarial Valuation

Interest: 7.50% per annum COLA: Tier 1: 3.25% Tier 2: 0.00% Tier 3: 2.00% Tier 4: 2.00% Tier 5: 2.00% RP-2000 Combined Healthy Mortality Table projected with scale BB to 2022 weighted 40% male Mortality: and 60% female

Salary increase: Inflation (3.25%) + Across-the-Board Increase (0.25%) + Merit (See Exhibit III).

COLA Loading Factor: Tier 1<sup>(2)</sup>: 33.90%

Tier 3<sup>(2)</sup>: 34.93% Tier 4<sup>(2)</sup>: 18.22% Tier 5: 18.71%

#### Non-Refundability factor:

Tier 1: 100.00% Tier 2: 100.00% Tier 3: 98.03% Tier 4: 94.95% Tier 5: 91.58%



<sup>(2)</sup> Factors have been adjusted to reflect a reserve carried by the Board to reduce part of the COLA contributions.

Appendix A
Member Contribution Rates (Continued)

# Safety Members' Contribution Rates from the June 30, 2016 Actuarial Valuation

	Basic Only						COLA	Only					To	otal		
•	Fi	irst \$350 of	-			First \$350 o	f	-			I	First \$350 o	f			
	Mo	onthly Salary	Salary ir	n Excess of \$350	N	Ionthly Sala	ry	Salary	in Excess of	of \$350	M	onthly Sala	ry	Salary	in Excess of	of \$350
Entry Age	Tier 1	Tier 2 & Tier 3	Tier 1	Tier 2 & Tier 3	Tier 1	Tier 2	Tier 3	Tier 1	Tier 2	Tier 3	Tier 1	Tier 2	Tier 3	Tier 1	Tier 2	Tier 3
18	5.75%		8.62%		3.57%			5.36%			9.32%			13.98%		
19	5.82%		8.73%		3.62%			5.43%			9.44%			14.16%		
20	5.89%		8.84%		3.67%			5.50%			9.56%			14.34%		
21	5.97%		8.95%		3.71%			5.57%			9.68%			14.52%		
22	6.04%		9.06%		3.75%			5.63%			9.79%			14.69%		
23	6.12%		9.18%		3.81%			5.71%			9.93%			14.89%		
24	6.20%		9.30%		3.85%			5.78%			10.05%			15.08%		
25	6.27%		9.41%		3.90%			5.85%			10.17%			15.26%		
26	6.36%		9.54%		3.95%			5.93%			10.31%			15.47%		
27	6.44%		9.66%		4.01%			6.01%			10.45%			15.67%		
28	6.53%		9.79%		4.06%			6.09%			10.59%			15.88%		
29	6.61%	6.29%	9.92%	9.43%	4.11%	1.99%	1.78%	6.17%	2.99%	2.67%	10.72%	8.28%	8.07%	16.09%	12.42%	12.10%
30	6.70%		10.05%		4.17%			6.25%			10.87%			16.30%		
31	6.79%		10.18%		4.22%			6.33%			11.01%			16.51%		
32	6.88%		10.32%		4.28%			6.42%			11.16%			16.74%		
33	6.98%		10.47%		4.34%			6.51%			11.32%			16.98%		
34	7.08%		10.62%		4.40%			6.60%			11.48%			17.22%		
35	7.19%		10.78%		4.47%			6.70%			11.66%			17.48%		
36	7.29%		10.94%		4.53%			6.80%			11.82%			17.74%		
37	7.41%		11.11%		4.61%			6.91%			12.02%			18.02%		
38	7.53%		11.30%		4.69%			7.03%			12.22%			18.33%		
39	7.67%		11.50%		4.77%			7.15%			12.44%			18.65%		
40	7.79%		11.69%		4.85%			7.27%			12.64%			18.96%		
41	7.87%		11.81%		4.89%			7.34%			12.76%			19.15%		
42	7.95%		11.93%		4.95%			7.42%			12.90%			19.35%		
43	8.03%		12.04%		4.99%			7.49%			13.02%			19.53%		
44	8.09%		12.14%		5.03%			7.55%			13.12%			19.69%		
45	8.14%		12.21%		5.06%			7.59%			13.20%			19.80%		
46	8.14%		12.21%		5.06%			7.59%			13.20%			19.80%		
47	8.09%		12.14%		5.03%			7.55%			13.12%			19.69%		
48	7.99%		11.99%		4.97%			7.46%			12.96%			19.45%		
49 &																
Over	7.85%		11.78%		4.89%			7.33%			12.74%			19.11%		

Members who enter prior to 1/1/1975 contribute on the basis of their actual entry age and all others contribute on the basis of a single entry age of 29.



## Appendix A

**Member Contribution Rates (Continued)** 

#### Safety Members' Contribution Rates from the June 30, 2016 Actuarial Valuation

Interest: 7.50% per annum

COLA: Tier 1: 3.25%

Tier 2: 2.00% Tier 3: 2.00% Tier 4: 2.00%

Mortality: RP-2000 Combined Healthy Mortality Table projected with scale BB to 2022 set back one year for

males and set forward two years for females weighted 70% male and 30% female

Salary increase: Inflation (3.25%) + Across-the-Board Increase (0.25%) + Merit (See Exhibit III).

COLA Loading Factor: Tier 1<sup>(2)</sup>: 62.19%

Tier 2<sup>(2)</sup>: 31.73% Tier 3<sup>(2)</sup>: 28.34% Tier 4: 23.85%

#### Non-Refundability factor:

Tier 1: 99.99% Tier 2: 99.42% Tier 3: 98.42% Tier 4: 97.10%



<sup>(1)</sup> It is our understanding that in the determination of pension benefits under the CalPEPRA formulas, the compensation that can be taken into account for 2016 is equal to \$117,020 (reference: Section 7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers after 2016 (reference: Section 7522.10(d)).

<sup>(2)</sup> Factors have been adjusted to reflect a reserve carried by the Board to reduce part of the COLA contributions.

Appendix B
UAAL Amortization Schedule as of June 30, 2016 (Dollar Amounts in Thousands)

	Date Established	Source	Initial Amount	Outstanding Balance	Years Remaining	Annual Payment
Miscellaneous	June 30, 2012	Restart amortization	\$814,400	\$824,586	19	\$62,138
	June 30, 2013	Actuarial loss	34,060	33,754	17	2,749
	June 30, 2014	Actuarial gain	(125,182)	(124,788)	18	(9,761)
	June 30, 2014	Assumption changes	(46,607)	(46,460)	18	(3,634)
	June 30, 2015	Actuarial gain	(73,919)	(73,901)	19	(5,569)
	June 30, 2015	Withdrawn employers	2,989	2,988	19	225
	June 30, 2016	Actuarial loss	12,986	<u>12,986</u>	20	<u>945</u>
Subtotal				\$629,165		\$47,093
Safety	June 30, 2010	LEMA	\$4,047	\$2,229	4	\$613
•	June 30, 2012	Restart amortization	493,928	500,105	19	37,686
	June 30, 2013	Actuarial loss	53,174	52,696	17	4,291
	June 30, 2013	DSA Retirement Incentive	6,134	2,876	2	1,524
	June 30, 2014	Actuarial gain	(40,247)	(40,120)	18	(3,138)
	June 30, 2014	Assumption changes	62,388	62,192	18	4,865
	June 30, 2015	Actuarial gain	(8,318)	(8,316)	19	(627)
	June 30, 2016	Actuarial gain	(1,139)	(1,139)	20	(83)
Subtotal		· ·		\$570,523		\$45,131
<b>Grand Total</b>				<u>\$1,199,688</u>		<u>\$92,224</u>



#### Appendix C

#### **Normal Cost Rates with Additional Member Pick-ups**

The Normal Cost rates adjusted for the additional member pick-ups are developed in the following steps:

Step A: Calculate the Normal Cost rates for the employer and the member assuming that no members pick up an additional portion of the Normal Cost.

Step B: Calculate the Normal Cost rates for the employer and the member assuming that members pay exactly one-half of the total Normal Cost rate. In this step, we have adjusted the employer rate to account for the cost associated with the cessation of member contributions for Miscellaneous members hired on or before March 7, 1973 and after 30 years of service and for Safety Tier 1, Tier 2 and Tier 3 members after 30 years of service

Step C: Gross up the member Normal Cost rates developed in Step B for the integration with Social Security

These steps are outlined in the following pages.



### Appendix C

#### Normal Cost Rates with Additional Member Pick-ups (continued)

#### **Total Normal Cost Contribution Rates**

(For the County and Elected Officials Only) Employer and Member Normal Cost Rates

(A) Normal Cost (Prior to any Pick Up of Additional Normal Cost by the Member)

#### Miscellaneous

	Percent of Payroll Member Paying Full Rate							
	Tier 1 <sup>(1)</sup>	Tier 2	Tier 3	Tier 4				
Employer	12.01%	10.72%	13.69%	9.98%				
Member	4.95%	3.54%	4.78%	7.24%				
Member COLA Buydown	1.19%	0.00%	0.31%	0.31%				
Total	18.15%	14.26%	18.78%	17.53%				

#### Safety

#### Percent of Payroll Member Paying Full Rate Tier 1<sup>(1)</sup> Tier 2 Tier 3 Employer 21.84% 20.08% 18.61% Member 16.09% 12.42% 12.10% 1.49% 0.32% 0.32% Member COLA Buydown 39.42% 32.82% 31.03%

Note: Member rates shown are for annual salary in excess of \$4,200 (or monthly salary of \$350). For annual salary less than \$4,200 (or monthly salary of \$350), the rates are equal to 2/3 of the rates shown. Also, the member COLA buydown is a non-cash contribution item.



<sup>(1)</sup> These are the single entry age rates at age 35 and 29 for Miscellaneous and Safety, respectively.

#### Appendix C

Total

#### Normal Cost Rates with Additional Member Pick-ups (continued)

#### **Total Normal Cost Contribution Rates**

(For the County and Elected Officials Only) Employer and Member Normal Cost Rates

(B) Normal Cost (Assuming Exactly 50:50 Payment by the Employer and the Member) – Before Gross-up for the Integration with Social Security

#### Miscellaneous

	Percent of Payroll								
	Member Paying Full Rate								
	Tier 1	Tier 2	Tier 3	Tier 4					
Employer	9.44%(1)	7.13%	9.44%	8.81%					
Member <sup>(4)</sup>	7.89%	7.13%	9.13%	8.50%					
Member COLA Buydown	1.19%	0.00%	0.31%	0.31%					
Total	18.52%	14.26%	18.88%	17.62%					

40.04%

#### Safety

#### Percent of Payroll Member Paying Full Rate Tier 2 Tier 1 Tier 3 16.47%(3) Employer 20.33%(2) 15.54% Member<sup>(4)</sup> 18.22% 16.10% 15.22% Member COLA Buydown 1.49% 0.32% 0.32%

Note: Member rates shown are for annual salary in excess of \$4,200 (or monthly salary of \$350). For annual salary less than \$4,200 (or monthly salary of \$350), the rates are equal to 2/3 of the rates shown. Also, the member COLA buydown is a non-cash contribution item.

32.89%

31.08%



<sup>(1)</sup> The employer rate has been adjusted by 0.36% of payroll to account for the cost associated with the cessation of member contributions for those members hired on or before March 7, 1973 and after 30 years of service.

<sup>(2)</sup> The employer rate has been adjusted by 0.62% of payroll to account for the cost associated with the cessation of member contributions after 30 years of service.

<sup>(3)</sup> The employer rate has been adjusted by 0.05% of payroll to account for the cost associated with the cessation of member contributions after 30 years of service.

<sup>(4)</sup> The member rates <u>have not</u> been grossed up for the rate on the first \$4,200 in annual salary being less (by one-third) when compared to the 50:50 total Normal Cost rate. Please see the following page for the rates after the gross-up.

#### Appendix C

#### Normal Cost Rates with Additional Member Pick-ups (continued)

#### **Total Normal Cost Contribution Rates**

(For the County and Elected Officials Only) Employer and Member Normal Cost Rates

(C) Normal Cost (Assuming Exactly 50:50 Payment by the Employer and the Member) – After Gross-up for the Integration with Social Security

#### Miscellaneous

		Percent of	of Payroll							
		Member Paying Full Rate								
	Tier 1	Tier 2	Tier 3	Tier 4						
Employer	9.44%(1)	7.13%	9.44%	8.81%						
Member <sup>(4)</sup>	8.03%	7.27%	9.30%	8.67%						
Member COLA Buydown	1.19%	0.00%	0.31%	0.31%						
Total	18.66%	14.40%	19.05%	17.79%						

#### Safety

#### Percent of Payroll Member Paying Full Rate Tier 2 Tier 1 Tier 3 20.33%(2) 16.47%(3) Employer 15.54% Member<sup>(4)</sup> 18.42% 16.30% 15.45% Member COLA Buydown 1.49% 0.32% 0.32% Total 40.24% 33.09% 31.31%

Note: Member rates shown are for annual salary in excess of \$4,200 (or monthly salary of \$350). For annual salary less than \$4,200 (or monthly salary of \$350), the rates are equal to 2/3 of the rates shown. Also, the member COLA buydown is a non-cash contribution item.

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<sup>(1)</sup> The employer rate has been adjusted by 0.36% of payroll to account for the cost associated with the cessation of member contributions for those members hired on or before March 7, 1973 and after 30 years of service.

<sup>(2)</sup> The employer rate has been adjusted by 0.62% of payroll to account for the cost associated with the cessation of member contributions after 30 years of service.

<sup>(3)</sup> The employer rate has been adjusted by 0.05% of payroll to account for the cost associated with the cessation of member contributions after 30 years of service.

<sup>(4)</sup> The member rates <u>have</u> been grossed up for the rate on the first \$4,200 in annual salary being less (by one-third) when compared to the 50:50 total Normal Cost rate.

# **EXHIBIT H**

# **Proposer Guaranties**

1.		n and will provide and make available, as a minimum, tion III, Nature of Services Required.
Signa	ture of Official:	
Name	(printed):	
Title:		
Firm:		
Date:		
THIS RFP.	SHEET MUST BE FILLED	OUT AND RETURNED WITH YOUR COMPLETED

#### **EXHIBIT I**

## **Proposer Warranties**

- A. Proposer warrants that it is willing and able to comply with State of California laws with respect to foreign (non-state of California) corporations.
- B. Proposer warrants that it is willing and able to obtain an errors and omissions insurance policy providing a prudent amount of coverage for the willful or negligent acts, or omissions of any officers, employees or agents thereof.
- C. Proposer warrants that it will not delegate or subcontract its responsibilities under an agreement without the prior written permission of SCERS.
- D. Proposer warrants that all information provided by it in connection with this proposal is true and accurate.

Signature of Official:	
Name (printed):	
Title:	
Firm:	
Date:	

THIS SHEET MUST BE FILLED OUT AND RETURNED WITH YOUR COMPLETED RFP.