



Notice of Public Meeting

Audit Committee

of the San Mateo County Employees' Retirement Association will meet at
100 Marine Parkway, Suite 125, Redwood City

Thursday, October 26, 2017, at 4:00 p.m.

PUBLIC SESSION – The Committee will meet in Public Session at 4:00 p.m.

- 1 **Call to Order and Roll Call**
- 2 **Oral Communications**
 - 2.1 Oral Communications From the Committee
 - 2.2 Oral Communications From the Public
- 3 **Review and Discussion of the Following Items**
 - 3.1 Recommendation to the Board of Retirement to Accept Financial Audit Management Reports and Findings
 - 3.2 Recommendation to the Board of Retirement to Approve of SamCERA's 2017 Comprehensive Annual Financial Report
- 4 **Finance Officer's Report**
- 5 **Adjournment**

Tat-Ling Chow, Finance Officer

Posted: October ²⁰23, 2017

Be advised that the committees of the Board of Retirement are forums in which consensus may emerge. If you have an interest in a matter before a committee, you are advised to attend the committee meeting. Committee meeting times are noted on the board agenda.

IN COMPLIANCE WITH THE CALIFORNIA GOVERNMENT CODE AND THE AMERICANS WITH DISABILITIES ACT:

SamCERA's facilities and board and committee meetings are accessible to individuals with disabilities. Contact David Bailey at (650) 363-4930 at least three business days prior to the meeting, if (1) you need special assistance or a disability-related modification or accommodation, including auxiliary aids or services, in order to participate in this meeting; or (2) you have a disability and wish to receive the agenda, meeting notice, agenda packet or other writings that may be distributed at the meeting in an alternative format. Notification in advance of the meeting will enable *SamCERA* to make reasonable arrangements to ensure full accessibility to this meeting and the materials related to it.

THE COMMITTEE MEETS IN 100 MARINE PARKWAY, SUITE 125,
WHICH IS LOCATED ON THE SE CORNER OF TWIN DOLPHIN & MARINE PARKWAY IN REDWOOD CITY
Detailed directions are available on the "Contact Us" page of the website www.samcera.org
Free Parking is available in all lots in the vicinity of the building.

[Continued on page 2 – Posted 10/23/2017]

SamCERA
100 Marine Parkway, Suite 125
Redwood City, CA 94065

How to Find Us:

From Northbound 101 take the Ralston/ Marine World Parkway exit. Drive East on Marine Parkway toward the Bay.

From Southbound 101 take the Ralston/ Marine World Parkway exit. Drive East over the freeway on Marine Parkway toward the Bay.

From El Camino Real, turn East toward the Bay on Ralston and drive over the freeway on Marine Parkway. (Ralston becomes Marine Parkway at 101.)

Twin Dolphin Drive is two stoplights beyond the freeway. The “Shores Center” sign on the lawn is located in front of our new home.

Continue on Marine Parkway one block beyond Twin Dolphin to Lagoon Drive. Note the 100 Marine granite monument with *SamCERA* logo near curb as you approach Lagoon Drive.

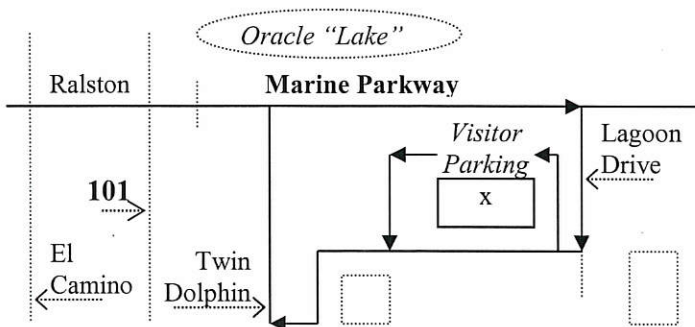
From Marine Parkway turn Right on Lagoon Drive and then immediately take the next two Right turns into our parking lot.

Park in the **Visitor spaces** on the Marine Parkway side of our building near the North Entrance.

SamCERA is in Suite 125 on the first floor, on your left just inside the North Entrance on the Marine Parkway side of the building.

SamCERA's Telephone Number:	(650) 599-1234
From a County Extension:	Dial 1234
From Outside the 650 Area Code:	(800) 339-0761
Web Site:	www.samcera.org

Our Office is Open Monday thru Thursday from 7:00 a.m. until 6:00 p.m.



SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

October 31, 2017

Agenda Item 7.1

TO: Board of Retirement

FROM: Tat-Ling Chow, Finance Officer 

SUBJECT: Approval of Financial Audit Management Reports for the Fiscal Year Ended June 30, 2017

Staff Recommendation

Approve the Brown Armstrong's Financial Audit Reports for the fiscal year ended June 30, 2017.

Discussion

Brown Armstrong performed an independent financial audit for the fiscal year ended June 30, 2017. Andy Paulden, CPA, of Brown Armstrong, will discuss the purpose of the audit, the audit process, the scope of audit work, and the following four audit reports:

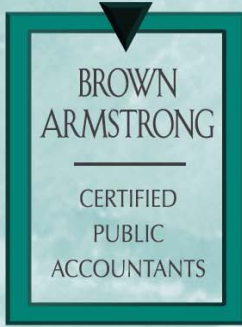
- 1) *Independent Auditor's Report*. This report provides an unqualified (a clean) opinion as follows: "In our opinion, the financial statements and the other information referred to above present fairly, in all material respects, the fiduciary net position of SamCERA as of June 30, 2017; its changes in fiduciary net position for the fiscal year then ended; the Schedule of Cost Sharing Employer Allocations; and the Schedule of Employer Pension Amounts Allocated by Cost Sharing Plan total for all entities of the columns titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total pension expense excluding that attributable to employer-paid member contributions (specified column totals) as of and for the fiscal year ended June 30, 2017, in conformity with accounting principles generally accepted in the United States of America." This report is included in SamCERA's Comprehensive Annual Financial Report for the fiscal year ended June 30, 2017.
- 2) *Required Communication to the Board of Retirement and Audit Committee in Accordance with Professional Standards*. This document provides an overview of the auditor's responsibility under the U.S. Generally Accepted Auditing Standards. The required communications provide useful information to assist in understanding the audit process and auditing procedures to complete the audit.
- 3) *Independent Auditor's Report on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with Government Auditing Standards*. This report states that there are (1) no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards* and (2) no matters involving the internal control over financial reporting and its operation considered to be material weaknesses.

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

- 4) *Agreed Upon Conditions Report Designed to Increase Efficiency, Internal Controls, and/or Financial Reporting.* This report identifies matters that are opportunities for strengthening internal controls and operating efficiency.

Attachments

Reports under 2, 3, and 4 listed above.



BROWN ARMSTRONG
Certified Public Accountants

San Mateo County Employees' Retirement Association
Board of Retirement presentation
of the June 30, 2017 Audit Results
By: Andrew J. Paulden, CPA
Brown Armstrong Accountancy Corporation
October 31, 2017

BAKERSFIELD OFFICE
(MAIN OFFICE)

4200 TRUXTUN AVENUE
SUITE 300
BAKERSFIELD, CA 93309
TEL 661.324.4971
FAX 661.324.4997
EMAIL info@bacpas.com

FRESNO OFFICE

7673 N. INGRAM AVENUE
SUITE 101
FRESNO, CA 93711
TEL 559.476.3592
FAX 559.476.3593

LAGUNA HILLS OFFICE

23272 MILL CREEK DRIVE
SUITE 255
LAGUNA HILLS, CA 92563
TEL 949.652.5422

STOCKTON OFFICE

5250 CLAREMONT AVENUE
SUITE 150
STOCKTON, CA 95207
TEL 209.451.4833

1. Purpose of the Audit
2. The Audit Process
 - a. Timeline coordination with SamCERA staff
 - b. Understanding and evaluation of SamCERA internal controls through inquiry and observation
 - c. Confirmations with independent third parties
 - d. Interim testing
 - e. Final fieldwork testing
 - f. Report presentation
3. Significant Audit Areas/Scope of Audit Work
 - a. Risk based approach
 - b. Investments and related earnings
 - c. Participant data and actuarial information
 - d. Employee and employer contributions
 - e. Benefit payments
 - f. GASB 67/68
4. Audit Reports
 - a. CAFR
 - i. Independent Auditor's Report (opinion) on Financial Statements – unmodified (“clean”) opinion
 - b. Report to the Board of Retirement and Audit Committee
 - i. Required Communication to the Members of the Board of Retirement and Audit Committee in Accordance with Professional Standards (SAS 114)
 - ii. Independent Auditor's Report on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*
 - iii. Agreed Upon Conditions Report Designed to Increase Efficiency, Internal Controls, and/or Financial Reporting
5. Questions and/or Comments?

**SAN MATEO COUNTY EMPLOYEES'
RETIREMENT ASSOCIATION**

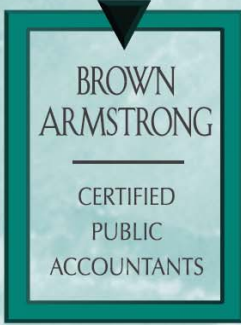
**REPORT TO THE BOARD OF RETIREMENT
AND AUDIT COMMITTEE**

FOR THE FISCAL YEAR ENDED JUNE 30, 2017

**SAN MATEO COUNTY EMPLOYEES'
RETIREMENT ASSOCIATION**

TABLE OF CONTENTS

	<u>Page</u>
I. Required Communication to the Members of the Board of Retirement and Audit Committee in Accordance with Professional Standards	1
II. Independent Auditor's Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with <i>Government Auditing Standards</i>	4
III. Agreed Upon Conditions Report Designed to Increase Efficiency, Internal Controls, and/or Financial Reporting.....	6



BROWN ARMSTRONG
Certified Public Accountants

REQUIRED COMMUNICATION TO THE MEMBERS OF THE
BOARD OF RETIREMENT AND AUDIT COMMITTEE
IN ACCORDANCE WITH PROFESSIONAL STANDARDS

To the Board of Retirement and Audit Committee of
San Mateo County Employees' Retirement Association
Redwood City, California

BAKERSFIELD OFFICE
(MAIN OFFICE)

4200 TRUXTUN AVENUE
SUITE 300
BAKERSFIELD, CA 93309
TEL 661.324.4971
FAX 661.324.4997
EMAIL info@bacpas.com

FRESNO OFFICE

7673 N. INGRAM AVENUE
SUITE 101
FRESNO, CA 93711
TEL 559.476.3592
FAX 559.476.3593

LAGUNA HILLS OFFICE

23272 MILL CREEK DRIVE
SUITE 255
LAGUNA HILLS, CA 92563
TEL 949.652.5422

STOCKTON OFFICE

5250 CLAREMONT AVENUE
SUITE 150
STOCKTON, CA 95207
TEL 209.451.4833

We have audited the financial statements and other information (financial statements) of the San Mateo County Employees' Retirement Association (SamCERA) as of and for the fiscal year ended June 30, 2017, and have issued our report dated October 23, 2017. Professional standards require that we provide you with information about our responsibilities under auditing standards generally accepted in the United States of America and Government Auditing Standards, as well as certain information related to the planned scope and timing of our audit. We have communicated such information in our letter to you dated June 21, 2017. Professional standards also require that we communicate to you the following information related to our audit.

Significant Audit Findings

Qualitative Aspects of Accounting Practices

Management is responsible for the selection and use of appropriate accounting policies. The significant accounting policies used by SamCERA are described in Note 2, Summary of Significant Accounting Policies, to the financial statements. No new accounting policies were adopted and the application of existing policies was not changed during the fiscal year ended June 30, 2017. We noted no transactions entered into by SamCERA during the fiscal year for which there is a lack of authoritative guidance or consensus. All significant transactions have been recognized in the financial statements in the proper period.

Accounting estimates are an integral part of the financial statements prepared by management and are based on management's knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ significantly from those expected. The most sensitive estimates affecting SamCERA's financial statements were:

- Management's estimate of the fair value of investments was derived by various methods as detailed in Note 2, Summary of Significant Accounting Policies. We evaluated the key factors and assumptions used to develop the estimate of the fair value of investments in determining that it is reasonable in relation to the financial statements taken as a whole.
The contribution amounts and net pension liability which are based on the actuarially-presumed interest rate and assumptions. We evaluated the key factors and assumptions used to develop the estimates of the contribution amounts and net pension liability in determining that they are reasonable in relation to the financial statements taken as a whole.

Certain financial statement disclosures are particularly sensitive because of their significance to financial statement users. The most sensitive disclosures affecting the financial statements were:

- The disclosures for deposits and investments in Notes 2 and 5 to the financial statements, Summary of Significant Accounting Policies and Deposits and Investment Disclosures, respectively, were derived from SamCERA's investment policy. Management's estimate of the fair value of investments was derived by various methods as detailed in the notes.
- Additionally, the disclosures related to the funding policies, net pension liability, and actuarial methods and assumptions in Note 1, Plan Description; Note 3, Funding Policy; Note 4, Employer Contributions; and Note 6, Pension Disclosures, were derived from actuarial valuations, which involved estimates of the value of reported amounts and probabilities about the occurrence of future events far into the future.

The financial statement disclosures are neutral, consistent, and clear.

Difficulties Encountered in Performing the Audit

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

Corrected and Uncorrected Misstatements

Professional standards require us to accumulate all known and likely misstatements identified during the audit, other than those that are clearly trivial, and communicate them to the appropriate level of management. We did not identify any misstatements as a result of our audit procedures.

Disagreements with Management

For purposes of this letter, a disagreement with management is a financial accounting, reporting, or auditing matter, whether or not resolved to our satisfaction, that could be significant to the financial statements or the auditor's report. We are pleased to report that no such disagreements arose during the course of our audit.

Management Representations

We have requested certain representations from management that are included in the management representation letter dated October 23, 2017.

Management Consultations with Other Independent Accountants

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

Other Audit Findings or Issues

We generally discuss a variety of matters, including the application of accounting principles and auditing standards, with management each year prior to retention as SamCERA's auditors. However, these discussions occurred in the normal course of our professional relationship and our responses were not a condition to our retention.

Other Matters

We applied certain limited procedures to the Management's Discussion and Analysis, Schedule of Changes in Net Pension Liability and Related Ratios, Schedule of Employer Contributions, Schedule of Investment Returns, and Notes to the Required Supplementary Information, which are Required Supplementary Information (RSI) that supplement the basic financial statements. Our procedures consisted of inquiries of management regarding 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 the audit of the basic financial statements. We did not audit the RSI and do not express an opinion or provide any assurance on the RSI.

We were engaged to report on the Schedule of Administrative Expenses, Schedule of Information Technology Expenses, Schedule of Investment Expenses, Schedule of Payments to Consultants, and Notes to the Supplementary Information, which accompany the financial statements but are not RSI. With respect to this supplementary information, we made certain inquiries of management and evaluated the form, content, and methods of preparing the information to determine that the information complies with accounting principles generally accepted in the United States of America, the method of preparing it has not changed from the prior period, and the information is appropriate and complete in relation to our audit of the financial statements. We compared and reconciled the supplementary information to the underlying accounting records used to prepare the financial statements or to the financial statements themselves.

We were not engaged to report on the introductory, investment, actuarial, statistical, and compliance sections, which accompany the financial statements but are not RSI. We did not audit or perform other procedures on this information and we do not express an opinion or provide any assurance on it.

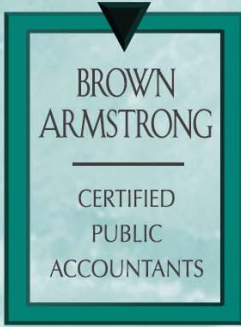
Restriction on Use

This information is intended solely for the use of the Members of the Board of Retirement, Audit Committee, and management of SamCERA and is not intended to be, and should not be, used by anyone other than these specified parties.

BROWN ARMSTRONG
ACCOUNTANCY CORPORATION

Brown Armstrong
Accountancy Corporation

Bakersfield, California
October 23, 2017



BROWN ARMSTRONG

Certified Public Accountants

INDEPENDENT AUDITOR’S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS

To the Board of Retirement and Audit Committee of
San Mateo County Employees’ Retirement Association
Redwood City, California

BAKERSFIELD OFFICE (MAIN OFFICE)

4200 TRUXTUN AVENUE
SUITE 300
BAKERSFIELD, CA 93309
TEL 661.324.4971
FAX 661.324.4997
EMAIL info@bacpas.com

FRESNO OFFICE

7673 N. INGRAM AVENUE
SUITE 101
FRESNO, CA 93711
TEL 559.476.3592
FAX 559.476.3593

LAGUNA HILLS OFFICE

23272 MILL CREEK DRIVE
SUITE 255
LAGUNA HILLS, CA 92563
TEL 949.652.5422

STOCKTON OFFICE

5250 CLAREMONT AVENUE
SUITE 150
STOCKTON, CA 95207
TEL 209.451.4833

We have audited, in accordance with the 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, the financial statements of the San Mateo County Employees’ Retirement Association (SamCERA) as of and for the fiscal year ended June 30, 2017, and the related notes to the financial statements, which collectively comprise SamCERA’s basic financial statements, and have issued our report thereon dated October 23, 2017.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered SamCERA’s internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of SamCERA’s internal control. Accordingly, we do not express an opinion on the effectiveness of SamCERA’s internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of SamCERA’s financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether SamCERA's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

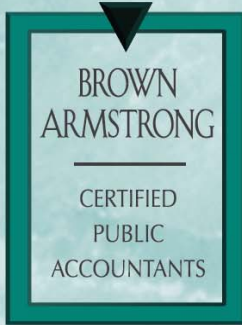
Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of SamCERA's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering SamCERA's internal control and compliance. Accordingly, this report is not suitable for any other purpose.

BROWN ARMSTRONG
ACCOUNTANCY CORPORATION

*Brown Armstrong
Accountancy Corporation*

Bakersfield, California
October 23, 2017



BROWN ARMSTRONG

Certified Public Accountants

AGREED UPON CONDITIONS REPORT DESIGNED TO INCREASE EFFICIENCY, INTERNAL CONTROLS, AND/OR FINANCIAL REPORTING

To the Board of Retirement and Audit Committee of
San Mateo County Employees' Retirement Association
Redwood City, California

BAKERSFIELD OFFICE (MAIN OFFICE)

4200 TRUXTUN AVENUE
SUITE 300
BAKERSFIELD, CA 93309
TEL 661.324.4971
FAX 661.324.4997
EMAIL info@bacpas.com

FRESNO OFFICE

7673 N. INGRAM AVENUE
SUITE 101
FRESNO, CA 93711
TEL 559.476.3592
FAX 559.476.3593

LAGUNA HILLS OFFICE

23272 MILL CREEK DRIVE
SUITE 255
LAGUNA HILLS, CA 92563
TEL 949.652.5422

STOCKTON OFFICE

5250 CLAREMONT AVENUE
SUITE 150
STOCKTON, CA 95207
TEL 209.451.4833

We have audited the financial statements of the San Mateo County Employees' Retirement Association (SamCERA) as of and for the fiscal year ended June 30, 2017, and have issued our report dated October 23, 2017. In planning and performing our audit of the financial statements of SamCERA, we considered its internal control structure over financial reporting (internal control) as a basis for designing our auditing procedures for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of SamCERA's internal control. Accordingly, we do not express an opinion on the effectiveness of SamCERA's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis.

Our consideration of internal control was for the limited purpose described in the first paragraph and was not designed to identify all deficiencies in internal control that might be significant deficiencies or material weaknesses and, therefore, there can be no assurance that all such deficiencies have been identified. In addition, because of inherent limitations in internal control, including the possibility of management override of controls, misstatements due to error or fraud may occur and not be detected by such controls. We did not identify any deficiencies in internal control that we considered to be material weaknesses.

During our audit we became aware of five matters that are opportunities for strengthening internal controls and operating efficiency. The recommendations that are listed in this report summarize the conditions and suggestions regarding each matter.

We will review the status of these matters during our next audit engagement. We have already discussed the matters and recommendations with various SamCERA personnel, and we will be pleased to discuss them in further detail at your convenience, to perform any additional study of these matters, or to assist you in implementing the recommendations.

This report is intended solely for the information and use of the Audit Committee, Board of Retirement, and management of SamCERA and is not intended to be, and should not be, used by anyone other than these specified parties.

BROWN ARMSTRONG
ACCOUNTANCY CORPORATION

*Brown Armstrong
Accountancy Corporation*

Bakersfield, California
October 23, 2017

Current Year Agreed Upon Conditions and Recommendations

Agreed Upon Condition 1 - Administrative access to SamCERA's Active Directory system

During our examination of administrative access to SamCERA's systems, we noted that the Chief Executive Officer (CEO) had been assigned administrative access within Active Directory (AD) system. Such privilege would allow access to all data stored on the SamCERA network and allow access to administer other individuals' access to this data. Removing this access would increase the segregation of the CEO's duties to direct, but not execute, system administration and system/data changes.

Recommendation

It is recommended that SamCERA examine the administrative access currently assigned to the CEO within AD system and seek to remove this access.

Management Response

The CEO no longer has administrative level access in AD system.

Agreed Upon Condition 2 - Periodic user access reviews of AD and V3 user accounts

Although SamCERA Information Technology (IT) staff reviews the AD user accounts, their group memberships, and assigned permissions on an irregular basis when instructed by County of San Mateo (the County) IT to clean up the domain or when a staff member requests a change within the system, such processes are performed only upon request. It is important to review user accounts and their assigned permissions, group memberships, and role assignments within these systems on a regular basis to reduce the risk that valid user accounts may have access to system functions that are not commensurate with current job responsibilities. In addition, such reviews also decrease the risk that unneeded or unauthorized user accounts are not identified and removed or disabled in a timely manner.

Recommendation

It is recommended that SamCERA management implement (on an annual basis, at a minimum) reviews of user accounts within its AD and V3 systems and their associated group memberships/role assignments and permissions on a regular basis. This is to ensure that no unneeded or unauthorized user accounts, such as those belonging to terminated employees, are active, and that the permissions assigned within the systems are appropriate for the individual's job responsibilities or functional requirements. All generic, system, and/or service accounts should be included in these reviews.

Management Response

Because of the small size of SamCERA staff and the relatively low turnover rate, accounts have been reviewed and adjusted accordingly as staff and consultants were added, promoted, or left employment with SamCERA. Currently, all staff's user accounts with the AD and V3 systems have the correct permissions in place. Based on this recommendation, SamCERA will implement a yearly review of all accounts in the AD and V3 systems in addition to the review brought on by personnel changes.

Agreed Upon Condition 3 - Password requirements for SamCERA's AD and V3 systems

During our examination of the password requirement settings within the AD and V3 systems, it was noted that the requirements configured within SamCERA's default domain policy, which controls the password requirements for AD user accounts, were partially configured to match the requirements specified by the County's Information Technology Security Policy, which has been adopted by SamCERA as its own information security policy. The minimum password age has not yet been implemented. In addition, SamCERA's V3 user accounts are configured to utilize the same password as employees' AD user accounts, the requirements configured within the Default Domain Policy extend to the V3 system as well.

Recommendation

It is recommended that SamCERA review the password requirement settings within the Default Domain Policy to ensure that strong password requirements have been implemented. It is also specifically recommended that the minimum password age is set to greater than zero days, so as to ensure that the password history requirement cannot be easily circumvented.

Management Response

The recommendations have been implemented by SamCERA.

Agreed Upon Condition 4 - Formalized IT risk assessments

Although SamCERA IT staff assess general IT-related risks during their yearly IT staff retreat, such assessments have not been performed using a comprehensive or formal methodology, and the identified risks, their associated remediation plans, and progress towards remediation of identified risks are not formally documented. A complete and formal risk assessment of IT-related risk has not been conducted. Having a complete and formal risk assessment will help SamCERA management identify and/or mitigate potential IT-related risks that may prevent the organization from fulfilling its financial reporting requirements and/or performing its day-to-day business processes effectively.

Recommendation

It is recommended that SamCERA perform a full IT risk assessment, including an evaluation of its control activities as they relate to significant applications that support SamCERA's financial reporting procedures. These assessments should include all areas of IT risk, including those not pertaining to cybersecurity. The IT risk assessment should result in a comprehensive IT risk matrix that lists all known IT risks and the actions and/or activities that SamCERA performs to mitigate the risks. SamCERA should conduct the process of evaluating IT-related risks on an annual basis to ensure that any new IT-related risks associated with changes to the IT environment and IT staffing, as well as any that may have been missed in prior year assessments, are identified and addressed. If appropriate, SamCERA may want to consider outsourcing the risk assessment to a third-party with knowledge of similar organizations and who can assist SamCERA in identifying and evaluating significant risks and developing cost-effective solutions to address these areas.

Management Response

SamCERA has adequate application controls built in its Pension Administration System Software (PASS) to address risks. Such controls were part of the PASS requirements, and these controls were reviewed by a third party and found to be adequate before SamCERA went live. Additionally, SamCERA's access to internet and remote access to its network is controlled by the County, which monitors unauthorized access with its own internal control protocols and policies. In July of 2017, SamCERA staff commenced an entity-wide internal control review using the Association of Public Pension Fund Auditors' tool to assess internal controls and risk. After staff completes its review, an independent consultant will be utilized to perform an external review of our internal controls and risks.

Agreed Upon Condition 5 - Review of audits completed by third-party IT service providers

During our inquiries regarding the use of third-party service providers, we noted that SamCERA has not obtained the results of audits completed by VSG Hosting (the company that hosts SamCERA's V3 system) and by TierPoint (the subservice organization utilized by VSG Hosting to provide the physical co-location facility in which SamCERA's V3 system is hosted and certain additional services), since obtaining a report in 2015 as part of a previous audit. It is important to establish a clear and repeatable procedure for in-depth reviews of audit reports to assure that financial data held by VSG Hosting and TierPoint is secure, accurate, and reliable. Reviewing such reports helps SamCERA determine whether any discussion or in-depth investigation of the implementation status of any required applicable complementary user entity controls is necessary.

Recommendation

It is recommended that SamCERA formalize its Service Organization Control (SOC) report review process to ensure that such reports are continually obtained and reviewed in a timely manner. Any exceptions noted for individual controls tested should be reviewed to determine if such risks need to be addressed. Any complementary user entity controls noted by VSG Hosting or TierPoint should be evaluated to ensure that such controls are properly implemented at SamCERA, if applicable.

It is recommended that SamCERA includes the following documentation at a minimum: (1) the dates on which the report(s) was obtained and reviewed, (2) the name of the individual(s) conducting the review, (3) the results of the review, and (4) a determination as to the status of any required complementary user entity controls. If any additional follow-up is required as a result of the review, the details (e.g., copies of email chains) and results of these procedures should also be documented.

Management Response

SamCERA has received and reviewed the 2015 SOC II and 2016 SOC II reports from both VSG and TierPoint. The 2017 SOC II report will be made available in 2018. SamCERA will continue to annually request the appropriate SOC reports from VSG Hosting and TierPoint.

Status of Prior Year Agreed Upon Conditions and Recommendations

None in prior year.

SAN MATEO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
Board of Retirement

October 31, 2017

Agenda Item 7.2

TO: Board of Retirement

FROM: Tat-Ling Chow, Finance Officer *Chow Tat-Ling*

SUBJECT: Approval of SamCERA's 2017 Comprehensive Annual Financial Report

Staff Recommendation

Approve SamCERA's Comprehensive Annual Financial Report (CAFR) for the fiscal year ended June 30, 2017.

Discussion

Staff will provide an oral report on this year's CAFR highlights.

Background

The CAFR is divided into six sections:

- **Introduction:** SamCERA's Mission and Goals, Administrator's Letter of Transmittal, the Government Finance Officers Association Certificate of Achievement for Excellence in Financial Reporting (20th consecutive year for SamCERA), the Public Pension Coordinating Council Public Pension Standards Award for Funding and Administration, Members of SamCERA's Board of Retirement, and SamCERA's Organizational Chart.
- **Financial:** Independent Auditors' Report, Management's Discussion and Analysis, SamCERA's Basic Financial Statements including Notes to the Basic Financial Statements, Required Supplementary Information, Supplementary Information, and Other Information.
- **Investment:** Chief Investment Officer's Report, Investment Consultant's Report, Asset Allocations, Schedule of Portfolio Returns, and other investment-related information.
- **Actuarial:** Actuary's Certification Letter, results of the most recent annual actuarial valuation, an overview of the plan funding status, and other actuarial-related information.
- **Statistical:** Detailed statistical data pertaining to SamCERA's activities.
- **Compliance:** Independent auditor's report on internal control over financial reporting and on compliance and other matters based on the most recent audit of financial statements performed in accordance with government auditing standards.

Attachment

2017 Comprehensive Annual Financial Report

2017

COMPREHENSIVE ANNUAL FINANCIAL REPORT



For the Fiscal Year Ended June 30, 2017
A Pension Trust Fund of the County of San Mateo and Participating Employers
Redwood City, State of California

**This year's CAFR theme is dedicated to
individuals' collective wellbeing.**

San Mateo County Employees' Retirement Association
A Pension Trust Fund of the County of San Mateo and Participating Employers

COMPREHENSIVE ANNUAL FINANCIAL REPORT

For the Fiscal Year Ended June 30, 2017

Scott Hood
Chief Executive Officer

Tat-Ling Chow
Finance Officer

Michael Coultrip
Chief Investment Officer

SamCERA
100 Marine Parkway, Suite 125
Redwood City, California 94065

TABLE OF CONTENTS

INTRODUCTORY SECTION

SamCERA’s Mission and Goals.....	9
Administrator’s Letter of Transmittal	10
GFOA Certificate of Achievement.....	18
PPCC Public Pension Standards Award	19
Members of the Board of Retirement	20
SamCERA Organizational Chart.....	22

FINANCIAL SECTION

Independent Auditor’s Report.....	25
Management’s Discussion and Analysis	28
Basic Financial Statements	
Statement of Fiduciary Net Position.....	38
Statement of Changes in Fiduciary Net Position	39
Notes to the Basic Financial Statements	
Note 1: Plan Description	40
Note 2: Summary of Significant Accounting Policies.....	44
Note 3: Funding Policy	48
Note 4: Employer Contributions.....	49
Note 5: Deposits and Investments	51
Note 6: Pension Disclosures	59
Note 7: Plan Reserves	61
Note 8: Administrative Expenses.....	64
Note 9: Information Technology Expenses.....	65
Note 10: Risk Management	66
Note 11: Related Party Transactions	67
Note 12: Commitments	67
Note 13: Contingent Liability	67
Required Supplementary Information	
Schedule of Changes in Net Pension Liability and Related Ratios.....	68

Schedule of Employer Contributions	69
Schedule of Investment Returns.....	69
Notes to the Required Supplementary Information.....	70
Supplementary Information	
Schedule of Administrative Expenses	71
Schedule of Information Technology Expenses.....	71
Schedule of Investment Expenses	72
Schedule of Payments to Consultants	72
Notes to the Supplementary Information	73
Other Information	
Schedule of Employer Pension Amounts Allocated by Cost Sharing Plan	74
Schedule of Cost Sharing Employer Allocations	75
Notes to the Other Information.....	75

INVESTMENT SECTION

Chief Investment Officer’s Report	79
Investment Consultant’s Report on Investment Activities.....	83
Investment Philosophy, Objectives, Policy, and Allocation	86
Asset Allocation.....	88
Schedule of Portfolio Returns	91
Schedule of Top Ten Equities and Fixed Income Securities.....	92
List of Investment Managers	93
Schedule of Professional Services and Fees	94
Top 10 Broker Commissions	94

ACTUARIAL SECTION

Actuary’s Certification.....	97
Actuarial Valuation.....	100
Actuarial Methods and Assumptions.....	101
Summary of Significant Actuarial Statistics and Measures.....	105
Valuation Assets.....	106
Actuarial Valuation - SamCERA’s Resources and Liabilities	107

Solvency Test	108
Schedule of Funding Progress.....	108
Employer and Member Contribution Rates	109
Employer Contribution Rates for All Plans Combined.....	109
History of Employer Statutory Contribution Rates.....	110
Rate of Separation From Active Service	112
Demographic Activity of Retirees and Beneficiaries	113
Actuarial Analysis of Financial Experience.....	113
Summary of Active Member Valuation Data.....	114
Schedule of Average Monthly Salary of Active Members	115
Participating Employers and Active Members	115
Summary of Retired and Inactive Member Benefits	116
Average Monthly Retiree Benefit Payment.....	117
Number of Retirees by Category	117

STATISTICAL SECTION

Changes in Fiduciary Net Position	121
Schedule of Additions to Fiduciary Net Position by Source	123
Schedule of Deductions from Fiduciary Net Position by Type	123
Total Fiduciary Net Position.....	124
Schedule of Employer Contributions.....	124
Summary of Retired Benefits, Refunds, and Inactive Members	125
Summary of Average Pension Benefit Payments	127
Schedule of Average Monthly Salary of Active Members	129
Schedule of Participating Employers and Active Members.....	130

COMPLIANCE SECTION

SamCERA's Funded Ratio.....	133
Additions To and Deductions From SamCERA's Net Position	133
Independent Auditor's Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with <i>Government Auditing Standards</i>	134



INTRODUCTORY SECTION

SAMCERA'S MISSION

SamCERA exists to serve as loyal fiduciary for its members and as prudent administrator of the retirement system.

SAMCERA'S GOALS

Provide caring, fair, accurate, timely and knowledgeable professional services and information to members and other stakeholders.

Prudently manage the assets in order to appropriately fund the actuarial liabilities of the retirement system, to ensure the ability to pay all earned benefits while minimizing the costs to employers.

Constantly improve the effectiveness of SamCERA's services and the efficiency of its operations.

ADMINISTRATOR'S LETTER OF TRANSMITTAL



100 Marine Parkway, Suite 125
Redwood City, CA 94065
Phone: 650-599-1234
Toll Free: 1-800-339-0761
Fax: 650-591-1488
Web: www.samcera.org
Email: samcera@samcera.org



Scott Hood
SamCERA
Chief Executive Officer

Board of Retirement
San Mateo County Employees' Retirement Association

Dear Trustees:

I am pleased to present the Comprehensive Annual Financial Report (CAFR) of the San Mateo County Employees' Retirement Association (SamCERA) for the fiscal year ended June 30, 2017.

SamCERA's management is responsible for a fair presentation of financial data and a complete disclosure of all matters of material consequence. Management's discussion and analysis of the data are presented on pages 28-36.

SamCERA's management assumes full responsibility for the completeness and reliability of the information contained in the CAFR, based upon a comprehensive framework of internal control established for this purpose. As the cost of internal control should not exceed anticipated benefits, the objective is to provide reasonable, rather than absolute, assurance that the financial statements are free of material misstatements.

The certified public accounting firm of Brown Armstrong Accountancy Corporation provides financial audit services to SamCERA. The objective of this financial audit is to ensure that SamCERA's financial statements are presented in conformity with Generally Accepted Accounting Principles (GAAP) in the United States of America and are free of material misstatements. Internal controls are reviewed to ensure that SamCERA's policies and procedures are being adhered to and that sufficient controls are in place to ensure reliable financial reporting and to safeguard SamCERA's assets. This report is prepared in accordance with GAAP as promulgated by the Governmental Accounting Standards Board (GASB).

SamCERA's financial statements presented in the Financial Section are prepared on the accrual basis of accounting. Member and employer contributions are recognized in the period which contributions are due. Benefits and refunds are recognized when due and payable in accordance with plan terms. Investments are reported at fair value.

The duty of SamCERA's Board of Retirement, its officers, and its employees is to prudently manage plan assets in order to appropriately fund the actuarial liabilities of the retirement system, and ensure the ability to pay all earned benefits while minimizing employer contributions and defraying reasonable expenses of administering the system.

SamCERA engages an independent actuarial consulting firm, Milliman, to conduct an annual actuarial valuation of the pension plan. The purpose of this valuation is to reassess the magnitude of the benefit commitments in comparison with the assets expected to be available to support those commitments so that employer and employee contribution rates can be adjusted accordingly. Triennially, SamCERA requests its actuarial consulting firm to perform an actuarial experience study so that appropriate assumptions can be determined for valuing the plan's liabilities. SamCERA strives to provide the most recent financial and actuarial data in its annual report.

Authority, Responsibilities & Duties

The San Mateo County Board of Supervisors adopted an ordinance to create SamCERA, effective in San Mateo County on July 1, 1944, as prescribed by the provisions of Government Code section 31450 et seq., also known as California's County Employees Retirement Law of 1937 (the CERL). SamCERA provides retirement, disability, and death benefits for its eligible members and beneficiaries in accordance with the CERL, the California Public Employees' Pension Reform Act of 2013 (PEPRA - Government Code section 7522 et seq.), and other applicable statutes, regulations and case law.

The Board of Retirement (the Board), serving as fiduciary for all of SamCERA's

members and beneficiaries under the California Constitution, Article XVI, Section 17 and the CERL, is responsible for administering the system. The Board has adopted the Regulations of the Board of Retirement, and among other policies, its Mission & Goals; Investment Policy Statement; Conflict of Interest Code; and Code of Conduct, which reflect the Board's guiding policies. The Board annually adopts an operating budget for the administration of SamCERA, which is discussed in the Financial Section beginning on page 25. A breakdown of the budget allotment versus expenditures is presented on pages 64-66. In addition, the Board has authorized the execution of contracts for the professional services of an actuary, an auditing actuary, an investment consultant, investment managers, a global custodian, a financial auditor, a medical advisor delegated by the County Health Officer, and an information technology consultant to help the Board fulfill its duties. The Board's primary professional consultants are highlighted in the organizational chart on page 22.

SamCERA's Chief Executive Officer (CEO) serves at the pleasure of the Board and is responsible for managing the day-to-day operations of the plan. SamCERA's staff of 23 full-time employees is responsible for meeting the needs of its members and beneficiaries, participating employers, and the Board in accordance with the high standards set forth in SamCERA's Mission & Goals statements. SamCERA's staff is sworn

to carry out its fiduciary duties in accordance with governing law, SamCERA regulations and policies.

Employers participating in the retirement system include the County of San Mateo (the County), the San Mateo County Mosquito and Vector Control District (the District), and the Superior Court of the County of San Mateo (the Court). SamCERA's members include all active permanent employees of the participating employers, inactive members, retirees, and beneficiaries. More than 86% of SamCERA's members are classified as General Members while the remaining are public safety employees classified as Safety or Probation Members.

Looking Backward and Forward

For a summary of highlights for fiscal year 2016-17, I encourage you to review the following narrative introduction, as well as Management's Discussion and Analysis beginning on page 28. Details on SamCERA's investment portfolio can be found in the Chief Investment Officer's Report beginning on page 79.

Trustees

The SamCERA Board of Retirement consists of nine Trustees and two alternates. Four positions are appointed by the Board of Supervisors. Four Trustees are elected from their respective membership: two from the General Members, one from the Safety Members, and one from the Retiree

Members. The County Treasurer is a member of the Board by virtue of her publicly elected office; all other Trustees serve for a term of three years. In addition, there is one elected Safety Member Alternate and one elected Retiree Member Alternate. The officers for the Board for fiscal year 2016-17 were: Paul Hackleman, Chair; Mark Battey, Vice Chair; and Shirley Tourel, Secretary. Other members of the Board were: Sandie Arnott, Eric Tashman, Benedict J. Bowler, David Spinello, Kurt Hoefler and Al David. Alternate Trustees were Susan Lee and Alma Salas. Kurt Hoefler was appointed to the Ninth Seat by the San Mateo County Board of Supervisors and began serving his term in September of 2016. The County Elections Division conducted an election on March 13, 2017, for the Third General Member Seat. Al David was elected to fill the unexpired term of Natalie Kwan Lloyd after her resignation from County Employment.

Investments

This year's returns exceeded our long-term average assumed rate of return of 7.0%. SamCERA earned a strong positive return for fiscal year 2016-17 mainly due to the public equity and alternative portfolios. For the one-year period ended in June 2017, the fund returned 12.6% net of investment manager fees. The 12.6% return matched the fund's policy benchmark. The fiscal year return ranked in the 50th percentile (i.e., median) compared to SamCERA's peers (defined as public pension plans with

greater than \$1 billion in assets). Over the most recent five-year period ended June 2017, SamCERA's performance was in the upper quartile of its peers.

During the 2017 fiscal year SamCERA's Board updated its asset allocation policy as part of its asset liability study. The new policy reduces the reliance on US equity performance as portfolio growth driver. The new policy reduces the public equity exposure in favor of more inflation hedging, fixed income and alternatives assets. Inflation hedging assets, such as real estate, private real assets and liquid real assets will receive greater exposure. The increased allocation to fixed income will be split between opportunistic credit and core fixed income, while additional allocations to alternatives will go towards absolute return asset class.

Actuarial

SamCERA continues to be a statewide leader in funding assumptions and was pleased to be ranked the 4th most actuarially conservative among California retirement systems in a May 2017 survey from Roeder Financial. The survey ranks the funding assumptions used by California's public pension systems from "most conservative" to "most optimistic." SamCERA's high ranking was due mainly to its relatively short closed 15-year layered amortization of unfunded liabilities, and its relatively low assumed investment earnings rate, which at the time of the survey was

7.0%. Subsequent to the survey, the Board lowered the assumed rate of return to 6.75% on June 6, 2017.

Plan Funding Status

SamCERA maintains a funding goal that will fully fund the system's liabilities and contributions, as a percentage of payroll that will remain as level as possible for the plan sponsors. The independent actuarial consulting firm, Milliman, acts as the plan's actuary and conducts annual actuarial valuations, which are presented to the Board annually. The purpose of the valuation is to recommend the employer and member contribution rates for the coming fiscal year. Triennially, Milliman conducts an experience study of SamCERA members and makes recommendations to the Board on key economic and non-economic assumptions. The most recent triennial experience study was just completed for the period ended April 30, 2017.

Milliman's actuarial valuation as of June 30, 2017, determined that the funding ratio increased slightly from 83.1% to 84.3%, using approved assumptions. This increase was due primarily to returns better than expected and strong supplemental funding by the County. Two assumption changes used for this year's valuation served to detract from the funding level increase. SamCERA adopted the MP 2014 generational mortality tables for use and lowered the earnings assumption rate to 6.75%.

The Employer Normal Cost Rate increased to 10.95% for fiscal year 2018-19 from 10.24% of covered payroll for fiscal year 2017-18. The Employer Normal Cost

increased due to an increase of the number of members being part of the of the California Public Employees' Pension Reform Act of 2013 (PEPRA) plan.

The portion of the employer's statutory contribution rate that finances the unfunded actuarial accrued liability (UAAL) increased to 24.36% for fiscal year 2018-19 from 23.52% for fiscal year 2017-18. This increase was in large part due to implementing the MP 2014 generational mortality tables and lowering the assumed rate of return to 6.75%. For almost all plans, member rates and member cost of living adjustment (COLA) rates increased over the previous year as a result.

Supplemental Contributions

The County continues to make supplemental contributions to accelerate the pay down of its UAAL in accordance with a Memorandum of Understanding (MOU) between the County and SamCERA dating back to 2013. The contributions paid above the statutorily required contribution rate along with the earnings in the County's Supplemental Contribution Account (CSCA) overall have grown to \$118 million as of June 30, 2017. Furthermore, the County plans to contribute an estimated \$60 million to the CSCA over the next six years. In September of 2015, the District also entered into an MOU with SamCERA to make supplemental contributions to pay down its UAAL. The overall contributions and earnings in the District's Supplemental Contribution Account have grown to \$2 million as of June 30, 2017.

Cost of Living Adjustment

In 2017, the Bay Area continued to experience higher inflation than the rest of the country and slightly more than the prior year according to the Federal Bureau of Labor Statistics. This resulted in a COLA of 2.0% or 3.0% for most SamCERA retirees and beneficiaries, depending on the COLA limit of their plan membership. The COLA for Plan 1 and Plan 2 was 3.0%, while the COLA for Plans 4, 5, 6 and 7 was 2.0%. Plan 3 does not provide a COLA.

Information Technology

SamCERA completed its multi-year Technology Modernization Project to replace its aging pension administration system. SamCERA staff worked tirelessly with its vendor Vitech, Inc., on the design, programming, and testing of the system. SamCERA's new pension administration system, Vitech's V3, "went live" in January 2017 on time and under budget.

Strategic Planning

SamCERA's staff held their annual retreat in May of 2017 and began working through the steps in the strategic planning process as recommended by the Government Finance Officers Association (GFOA). The result of this retreat was an update of SamCERA's Strategic Plan Action Matrix. SamCERA continued the practice of formulating a two-year plan and extended the period covered for the strategic plan to include fiscal year 2018-19. This year, SamCERA focused on items that could be

undertaken by the resources that had been previously engaged with the V3 implementation project. Progress on these goals will be tracked and updated throughout fiscal year 2017-18.

Moving forward, SamCERA will continue to pursue its three major goals described below, all of which are derived from and consistent with SamCERA's mission statement:

1. ASSET MANAGEMENT GOAL

Prudently manage the assets in order to appropriately fund the actuarial liabilities of the retirement system to ensure the ability to pay all earned benefits, while minimizing the costs to employers.

Projects under this goal include: (1) analyzing whether to carve out a portion of the portfolio to specifically protect against an equity draw down event, (2) determine whether standardized reporting can be implemented with our private equity managers, (3) working with the Information Technology (IT) team to develop a streamlined tech solution to track investment manager reporting, and (4) enhancing the investment risk measurement and management of the portfolio.

2. CUSTOMER SERVICES GOAL

Provide caring, fair, accurate, timely and knowledgeable professional services and information to members and other stakeholders.

Although the implementation of Vitech's V3 is complete, staff will continue to focus on insuring the system is performing as expected. Staff will resume work on completing the member education program and developing a periodic investment performance snapshot to provide to employers.

3. OPERATIONS GOAL

Constantly improve the effectiveness of SamCERA's services and the efficiency of its operations.

Operationally, SamCERA will continue to focus on the V3 implementation in the post "Go Live" phase. Some related and supporting projects will also be undertaken such as incorporating internal control procedures, insuring consistent connectivity to the new system, undertaking a succession planning strategy and reviewing our General Ledger capabilities.

Certificate of Achievement and Acknowledgements

For the twentieth consecutive year, the Government Finance Officers Association (GFOA) has awarded SamCERA its Certificate of Achievement for Excellence in Financial Reporting. This award was in recognition of SamCERA's CAFR for the fiscal year ended June 30, 2016. The certificate is reproduced on page 18.

SamCERA is also the recipient of the GFOA Award for Outstanding Achievement in

Popular Annual Financial Reporting (PAFR) for the fourteenth year running, and has received this honor for the PAFR for the fiscal year ended June 30, 2016.

Additionally, the Public Pension Coordinating Council (the Council) presented SamCERA with its Public Pension Standards Award for 2016. This award recognizes that SamCERA has met professional standards for plan funding and administration as set forth in the Public Pension Standards of the Council. The standards judge retirement systems on their Funding Adequacy, Comprehensive Benefit Program, Actuarial Valuation, Independent Audit, Investments and Communications. The award is reproduced on page 19.

These awards recognize SamCERA's contributions to the practice of government finance exemplifying outstanding financial management and reporting; in doing so, the awards stress practical, documented work that offers leadership to the profession. The compilation of the Comprehensive Annual Financial Report, in a timely manner, reflects the combined efforts of SamCERA's management and staff under the leadership, dedication and support of the Board of Retirement.

SamCERA continues to maintain the highest financial reporting standards while providing quality services to its members. I am sincerely grateful to the Board of

Retirement and staff who always perform so diligently to ensure the successful operation and financial soundness of SamCERA. I am also appreciative for the continuing cooperation and open communication that SamCERA has with all our participating employers.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "S. Hood", is positioned above the typed name.

Scott Hood
Chief Executive Officer
October 23, 2017

GFOA CERTIFICATE OF ACHIEVEMENT



Government Finance Officers Association

Certificate of
Achievement
for Excellence
in Financial
Reporting

Presented to

**San Mateo County
Employees' Retirement System
California**

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

June 30, 2016

A handwritten signature in black ink, reading "Jeffrey R. Emer".

Executive Director/CEO

PPCC PUBLIC PENSION STANDARDS AWARD



Public Pension Coordinating Council

Public Pension Standards Award
For Funding and Administration
2016

Presented to

San Mateo County Employees' Retirement Association

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

Presented by the Public Pension Coordinating Council, a confederation of

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

A handwritten signature in cursive script, reading 'Alan H. Winkle'.

Alan H. Winkle
Program Administrator

MEMBERS OF THE BOARD OF RETIREMENT (JUNE 30, 2017)



Sandie Arnott
Ex Officio per the CERL, First Member

Sandie Arnott is the San Mateo County Treasurer/Tax Collector and is a member of the Board of Retirement by virtue of her office. She first began serving in this office in January 2011, but served as Assistant County Treasurer for many years during which she was also active on the Board of Retirement. Her current term as Treasurer/Tax Collector expires December 31, 2018.



Shirley Tourel
Elected by the General Members, Second Member, Secretary

Shirley Tourel is the Assistant Controller for San Mateo County, and has been with the Controller's Office since 2001. She was elected to the Retirement Board in 2015. Her current term expires June 30, 2018.



Al David
Elected by the General Members, Third Member

Al David is a manager with the Information Services Department of San Mateo County. He is also a retired Army Reserve Lieutenant Colonel. He was first elected to the Board in 2008 to fill a vacancy, and was reelected to a full term in 2009 and again in 2012, serving through 2015. He was elected again in March 2017 to fill an unexpired term. He has previously served as Board Chair. His current term expires June 30, 2019.



Eric Tashman
Appointed by the Board of Supervisors, Fourth Member

Eric Tashman is a finance partner in the San Francisco office of Norton Rose Fulbright. He was appointed by the Board of Supervisors in 2009 and reappointed in 2012 and 2015. His current term expires June 30, 2018.



Benedict J. Bowler
Appointed by the Board of Supervisors, Fifth Member

Benedict Bowler is the Treasurer of Matson, Inc. He was first appointed in August 2008 to fill the unexpired term of Scott Lee. He was reappointed in 2013 and 2016. His current term expires June 30, 2019.



Mark Battey
Appointed by the Board of Supervisors, Sixth Member, Vice Chair

Mark Battey is the owner of Miramar Farms, Inc. He was the managing director of Miramar Capital LLC, which provides strategic planning and investment management consulting services. He was appointed by the Board of Supervisors in September 2015. His current term expires June 30, 2018.



David Spinello
*Elected by the Safety Members,
Seventh Member*

David Spinello is a Deputy with the San Mateo County Sheriff's Office. He was elected to the Board of Retirement in 2009 and reelected in 2012 and 2015. He has previously served on the Audit Committee. His current term expires June 30, 2018.



Paul Hackleman
*Elected by the Retired Members,
Eighth Member, Chair*

Paul Hackleman served as the County Benefits Manager from 1982 through March 2008. He is also a former member of the Board of Retirement, having served from June 2005 through March 2008 while actively employed. Today he is the head of I.C. Benefits Consulting. He was elected in 2010, and reelected in 2013 and 2016. His current term expires June 30, 2019.



Kurt Hoefler
*Appointed by the Board of
Supervisors, Ninth Member*

Kurt Hoefler is a partner at Golub Group, LLC. As an investment adviser and investment banker, he has provided strategic and financial advice to institutions and individuals. He was appointed by the Board of Supervisors in September 2016. His current term expires June 30, 2019.



Alma Salas
*Elected by the Retired
Members, Retiree Alternate*

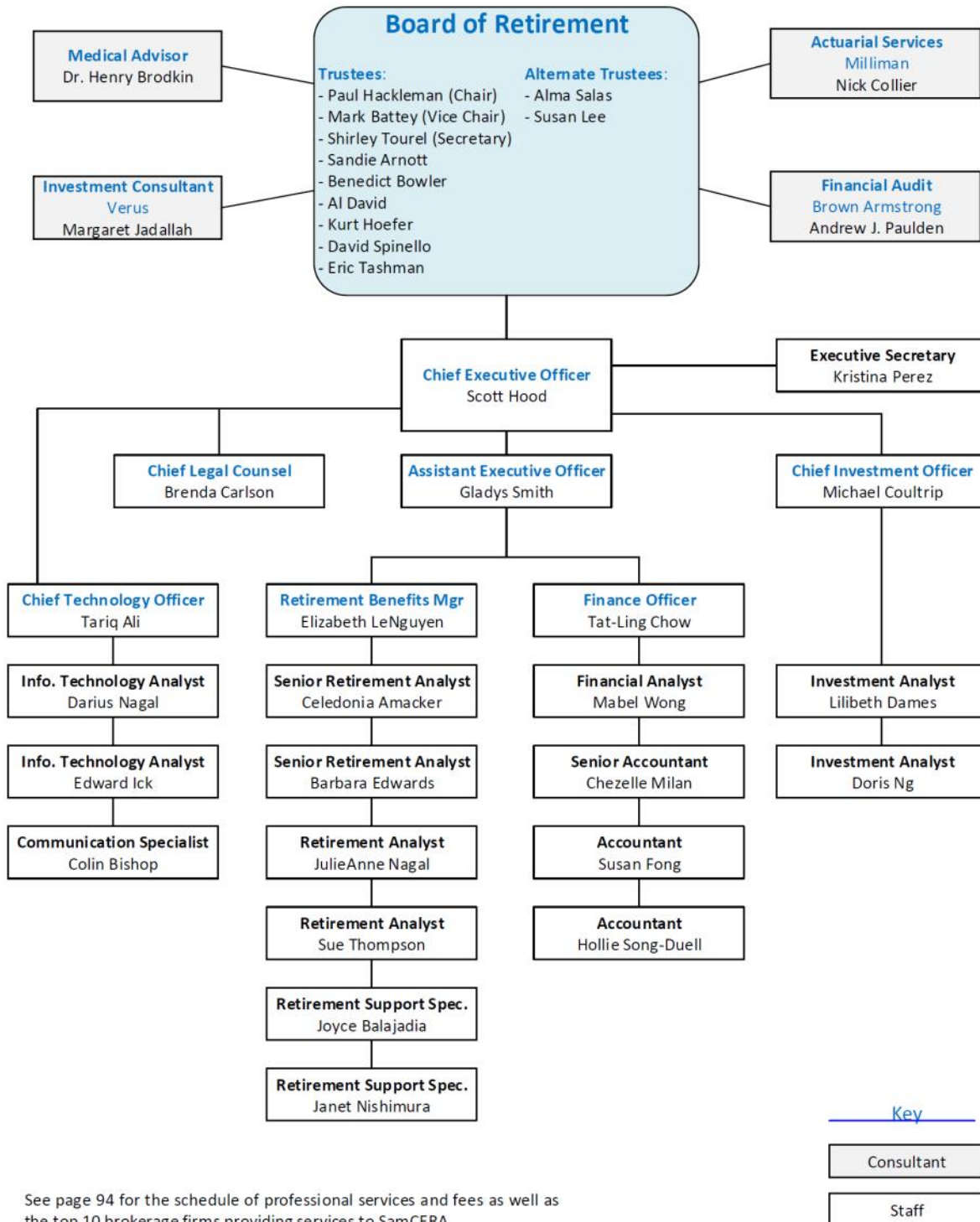
Alma Salas was a Probation Services Manager with the San Mateo County Probation Department before her retirement in May 2013. Alma first joined the Board in May of 2001, and served as Board Chair during the 2004-05 fiscal year. She was elected in 2013 to serve as the Retiree Alternate, and was reelected in 2016. In this role she substitutes in the absence of the Eighth Member. Her current term expires June 30, 2019.



Susan Lee
*Elected by the Safety
Members, Safety Alternate*

Susan Lee is a Deputy Probation Officer III, who has been with the Probation Department since 2002. She was elected to serve as the Safety Alternate in 2015. In this role, she substitutes in the absence of the Second, Third, or Seventh member. Additionally, if the Eighth member and Retiree alternate are absent, she substitutes for the Eighth member. Her current term expires June 30, 2018.

SAMCERA ORGANIZATIONAL CHART (JUNE 30, 2017)

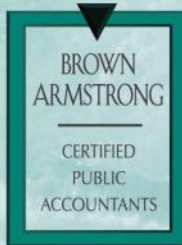


See page 94 for the schedule of professional services and fees as well as the top 10 brokerage firms providing services to SamCERA.



FINANCIAL SECTION





BROWN ARMSTRONG

Certified Public Accountants

INDEPENDENT AUDITOR'S REPORT

To the Board of Retirement of
San Mateo County Employees' Retirement Association
Redwood City, California

Report on the Financial Statements and Other Information

We have audited the accompanying Statement of Fiduciary Net Position of the San Mateo County Employees' Retirement Association (SamCERA), a pension trust fund of the County of San Mateo, as of June 30, 2017; the Statement of Changes in Fiduciary Net Position for the fiscal year then ended; and the related notes to the financial statements, which collectively comprise SamCERA's basic financial statements as listed in the table of contents. We have also audited the Schedule of Cost Sharing Employer Allocations and the Schedule of Employer Pension Amounts Allocated by Cost Sharing Plan total for all entities of the columns titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total pension expense excluding that attributable to employer-paid member contributions (specified column totals) as of and for the fiscal year ended June 30, 2017, listed as other information in the table of contents.

Management's Responsibility for the Financial Statements and Other Information

SamCERA's management is responsible for the preparation and fair presentation of these financial statements and other information 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 opinions on these financial statements and other information based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements and other information are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to SamCERA's preparation and fair presentation of the financial statements and other information 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 SamCERA's internal control. Accordingly, we express no such opinion. An audit also includes evaluating

BAKERSFIELD OFFICE (MAIN OFFICE)

4200 TRUXTUN AVENUE
SUITE 300
BAKERSFIELD, CA 93309
TEL 661.324.4971
FAX 661.324.4997
EMAIL info@bacpas.com

FRESNO OFFICE

7673 N. INGRAM AVENUE
SUITE 101
FRESNO, CA 93711
TEL 559.476.3592
FAX 559.476.3593

LAGUNA HILLS OFFICE

23272 MILL CREEK DRIVE
SUITE 255
LAGUNA HILLS, CA 92563
TEL 949.652.5422

STOCKTON OFFICE

5250 CLAREMONT AVENUE
SUITE 150
STOCKTON, CA 95207
TEL 209.451.4833

REGISTERED with the Public Company
Accounting Oversight Board and
MEMBER of the American Institute of
Certified Public Accountants

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 and other information.

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

Opinions

In our opinion, the financial statements and the other information referred to above present fairly, in all material respects, the fiduciary net position of SamCERA as of June 30, 2017; its changes in fiduciary net position for the fiscal year then ended; the Schedule of Cost Sharing Employer Allocations; and the Schedule of Employer Pension Amounts Allocated by Cost Sharing Plan total for all entities of the columns titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total pension expense excluding that attributable to employer-paid member contributions (specified column totals) as of and for the fiscal year ended June 30, 2017, in conformity with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and required supplementary information as listed in the table of contents be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the 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 audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise SamCERA's basic financial statements. The supplementary information and the introductory, investment, actuarial, statistical, and compliance sections, as listed in the table of contents, are presented for purposes of additional analysis and are not a required part of the basic financial statements.

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

Additional Information

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

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated October 23, 2017, on our consideration of SamCERA's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering SamCERA's internal control over financial reporting and compliance.

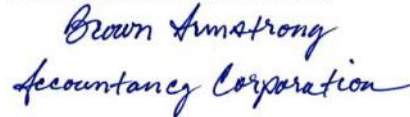
Report on Summarized Comparative Information

We have previously audited SamCERA's June 30, 2016, financial statements, and our report dated October 18, 2016, expressed an unmodified opinion on those audited financial statements. In our opinion, the summarized comparative information presented herein as of and for the fiscal year ended June 30, 2016, is consistent in all material respects, with the audited financial statements from which it has been derived.

Restrictions on Use

Our report is intended solely for the information and use of SamCERA management, the Audit Committee of SamCERA, the Board of Retirement of SamCERA, and SamCERA employers and their auditors and is not intended to be, and should not be, used by anyone other than these specified parties.

BROWN ARMSTRONG
ACCOUNTANCY CORPORATION

A handwritten signature in blue ink that reads "Brown Armstrong Accountancy Corporation". The signature is written in a cursive style.

Bakersfield, California
October 23, 2017

MANAGEMENT'S DISCUSSION AND ANALYSIS FISCAL YEAR 2016-17

As fiduciaries of the San Mateo County Employees' Retirement Association (SamCERA), we provide this overview and analysis of SamCERA's financial position as of June 30, 2017, and results of operation for the fiscal year ended June 30, 2017. The information presented here, in conjunction with the Notes to the Basic Financial Statements beginning on page 40, provides a clear picture of SamCERA's overall financial status and activities.

Financial Highlights

- SamCERA's fiduciary net position restricted for pensions as of June 30, 2017, was about \$4.0 billion, an increase of \$497 million, or 14%, over the prior fiscal year-end.
- Total assets increased \$412 million, or 11%, over the year. The increase was mainly from a \$410 million net appreciation in the fair value of investments held at year-end.
- Total liabilities decreased \$86 million, or 86%, over the year. SamCERA did not participate in securities lending activity at year-end due to changes in asset allocation. As a result, its liability from securities lending activity dropped to \$0 from \$88 million last year.
- Total additions to SamCERA's fiduciary net position increased \$421 million, or 152%, to \$697 million from \$276 million last year. The increase was primarily from investment earnings as

the market conditions continued to gain momentum throughout the year just ended. SamCERA's net return on investments amounted to 12.6% compared to 0.7% last year.

- Deductions from SamCERA's fiduciary net position increased \$11 million, or 6%, to \$200 million from \$189 million last year. The increase was triggered mainly by an increase in the number of retirees receiving pension benefits.
- The funded ratio for SamCERA as of June 30, 2017, increased to 84.3% from 83.1% over the year, based upon the most recent actuarial valuation. The improvement in funded ratio was mainly from employer contributions to amortize the unfunded actuarial accrued liability (UAAL) and investment earnings in excess of the assumed rate. The improvement was partially offset by the increase in UAAL due to assumption changes as a result of the 2017 Investigation of Experience Study.
- The net pension liability of participating employers was \$577 million as of June 30, 2017, which approximates to 113.2% of collective covered payroll based on the Governmental Accounting Standards Board (GASB) Statement No. 67.
- The overall financial position of SamCERA has improved over the year. SamCERA remains in good financial position to meet its obligations to plan participants and beneficiaries.

Overview of Financial Statements

The following discussion and analysis serve as an introduction and overview of SamCERA's basic financial statements. The basic financial statements and required disclosures are prepared in accordance with the accounting principles and reporting standards prescribed by GASB.

Basic Financial Statements

The basic financial statements are prepared using the accrual basis of accounting, which is similar to most private-sector entities.

The *Statement of Fiduciary Net Position* is a snapshot of account balances at fiscal year-end. This statement discloses the assets available for future pension benefits to retirees and their beneficiaries as well as outstanding liabilities as of June 30, 2017. The difference between assets and liabilities is reported as "Net Position Restricted for Pensions," which represents funds available to pay pension benefits.

Over time, increases and decreases in Net Position Restricted for Pensions may serve as an indicator of whether SamCERA's financial position is improving or declining. This statement can be found on page 38 of this report.

The *Statement of Changes in Fiduciary Net Position* provides information about the financial activities during the reporting period that increased or decreased the Net Position Restricted for Pensions. This statement can be found on page 39 of this report.

Member and employer contributions are recognized in the period in which

contributions are due pursuant to legal requirements. Benefits and refunds are recognized when due and payable in accordance with plan terms. Investment income is recognized when earned, and expenses are recognized when incurred. The net appreciation (or depreciation) in the fair value of investments is recorded as an increase (or a decrease) to investment income, which includes both realized and unrealized gains and losses on investments based upon investment valuations.

Notes to the Basic Financial Statements

The *Notes to the Basic Financial Statements* are an integral part of the basic financial statements and provide additional information that is essential to obtain a thorough understanding of the data provided in the basic financial statements. The notes also provide detailed information of key policies and activities during the reporting period. The Notes to Basic the Financial Statements can be found on pages 40-67 of this report.

Required Supplementary Information

Required Supplementary Information presents information that GASB requires to accompany the basic financial statements. Such information is an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. In addition to the Management's Discussion and Analysis, Required Supplementary Information consists of schedules discussed below and can be found on pages 68-70.

- Schedule of Changes in Net Pension Liability and Related Ratios of Participating Employers — displays changes in net pension liability of all participating employers.
- Schedule of Employer Contributions — helps readers determine if plan sponsors are meeting the statutory actuarially determined contributions over a period of time.
- Schedule of Investment Returns — shows the “money-weighted rate of return” for investments, net of investment manager expenses. The money-weighted rate of return is a measure of investment performance adjusted for cash flows and the changing amounts actually invested.

Supplementary Information

Supplementary Information includes several schedules detailing administrative, information technology and investment expenses, and payments to consultants (for fees paid to outside professionals other than investment advisors). Supplementary Information and the accompanying notes can be found on pages 71-73 of this report.

Other Information

Other Information consists of two schedules pertaining to GASB Statement No. 68, *Accounting and Financial Reporting for Pensions – an Amendment of GASB Statement No. 27*. The two schedules include the Schedule of Employer Pension Amounts Allocated by Cost Sharing Plan and the Schedule of Cost Sharing Employer Allocations. Under GASB Statement No. 68, plan sponsors are required to report Net

Pension Liability on their balance sheets and changes in Net Pension Liability on their operating statements as pension expenses, deferred inflows of resources, and deferred outflows of resources. Other Information can be found on pages 74-76 of this report.

Financial Analysis

Increases and decreases in fiduciary net position over time may serve as a useful indicator of whether the financial health of SamCERA is improving or declining. Other factors, such as market conditions, should be considered simultaneously in measuring SamCERA's overall financial position.

Analysis of Fiduciary Net Position

The table on the next page compares SamCERA's net position as of June 30 for the current and prior fiscal years. SamCERA's fiduciary net position restricted for pensions as of June 30, 2017, was approximately \$4 billion, which represents an increase of \$497 million, or 14%, over the reporting period. The chart on the next page compares SamCERA's net position as of June 30 for the last five fiscal years.

Assets. SamCERA's total assets increased \$412 million, or 11%, due to the following:

- \$62 million increase in cash and cash equivalents. Near year-end, SamCERA received \$33.6 million in supplemental contributions from the County of San Mateo (the County). The remaining cash came mainly from changes in asset allocation, ensuring sufficient cash was available to fund new investments in the upcoming fiscal year.

- \$88 million decrease in securities lending cash collateral. The amount of securities on loan at year-end was zero because SamCERA did not participate in securities lending activity at year-end.
- \$434 million increase in investments. SamCERA's investments performed

relatively well in fiscal year 2016-17. Net appreciation in fair value of investments amounted to \$410 million. In addition, \$24 million was put in new investments during the year across the entire portfolio.

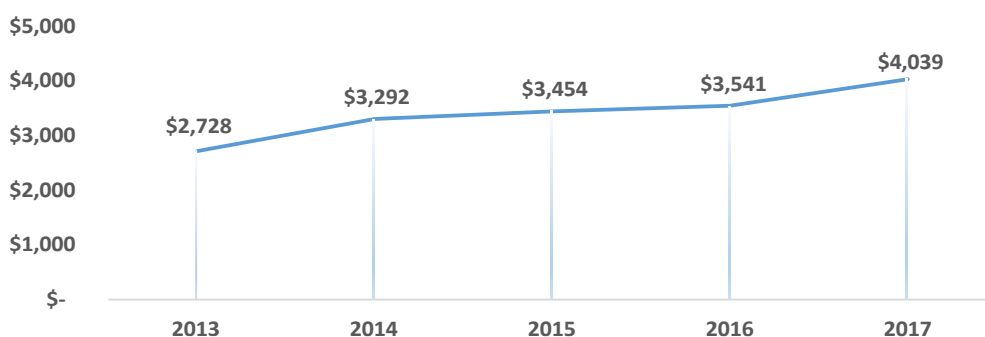
STATEMENT OF FIDUCIARY NET POSITION

June 30 (Dollars in Thousands)

	2017	2016	Increase (Decrease)	
			Amount	Percentage
Assets				
Cash and cash equivalents	\$ 192,194	\$ 130,111	\$ 62,083	48%
Cash management overlay	25,208	26,249	(1,041)	-4%
Securities lending cash collateral	-	88,363	(88,363)	-100%
Receivables	25,399	22,636	2,763	12%
Prepaid expense	8	8	-	0%
Investments at fair value	3,802,162	3,368,375	433,787	13%
Capital assets, net	7,629	5,162	2,467	48%
Total assets	4,052,600	3,640,904	411,696	11%
Liabilities				
Investment management fees	1,822	1,808	14	1%
Due to broker for investments purchased	9,417	7,582	1,835	24%
Collateral payable for securities lending	-	88,363	(88,363)	-100%
Other	2,659	1,763	896	51%
Total liabilities	13,898	99,516	(85,618)	-86%
Net position restricted for pensions	\$4,038,702	\$3,541,388	\$497,314	14%

SAMCERA'S FIDUCIARY NET POSITION

As of the Fiscal Years Ended June 30 (Dollars in Millions)



- \$2.4 million increase in capital assets, net of accumulated depreciation. During the first six months of the fiscal year, a tremendous amount of time and effort went into preparing the new pension system for implementation in January 2017.

Liabilities. SamCERA's total liabilities decreased \$86 million, or 86%. SamCERA did not engage in any securities lending activity at year-end. As a result, its liability associated with securities lending went down to \$0 from \$88 million last year.

Analysis of Changes in Fiduciary Net Position

The changes in fiduciary net position are determined by total additions less total deductions. The table on the next page shows condensed information about total additions to, and total deductions from, the fiduciary net position. SamCERA's fiduciary net position increased \$497 million, or 14%, for the fiscal year ended June 30, 2017.

Additions. Total additions to SamCERA's net position increased \$421 million, or 152%, compared to last year. The increase was attributed primarily to the following:

- \$8 million increase in employer contributions. The County increased its supplemental contributions by \$14.1 million, from \$19.5 million last year to \$33.6 million this year, to accelerate the payoff of unfunded liabilities. The increase was partly offset by a \$1.25 million reduction in supplemental contributions from the San Mateo County Mosquito and Vector Control District (\$1.5 million last year versus \$0.25 million this year). The increase was further offset by a \$5 million decline in the County's contributions to the Cost of Living Adjustment (COLA) due to the County shifting 50% of the COLA to its employees.
- \$6 million increase in member contributions. The increase was mainly from a Memorandum of Understanding (MOU) between the County and certain bargaining units. Under the MOU, a portion of the COLA contributions was shifted to County employees. Most County employees in Plans 1, 2, and 4 are required to contribute 50% of the COLA in addition to the basic and cost sharing contributions effective July 2016.
- \$412 million increase in net investment income. SamCERA's overall investment performance soared under favorable economic conditions. Its net return on investments was 12.6% compared to 0.7% last year.
- \$5 million decrease in other additions. In the prior year, one of the general partners in a Limited Partnership was in default. Its equity was distributed to the remaining general partners, including SamCERA. Consequently, SamCERA recognized an unanticipated gain of \$4.5 million.

Deductions. Total deductions increased \$11 million, or 6%, compared to last fiscal year, due mainly to the following:

- \$9 million increase in service retirement benefits due to an increase in the number of retirees.

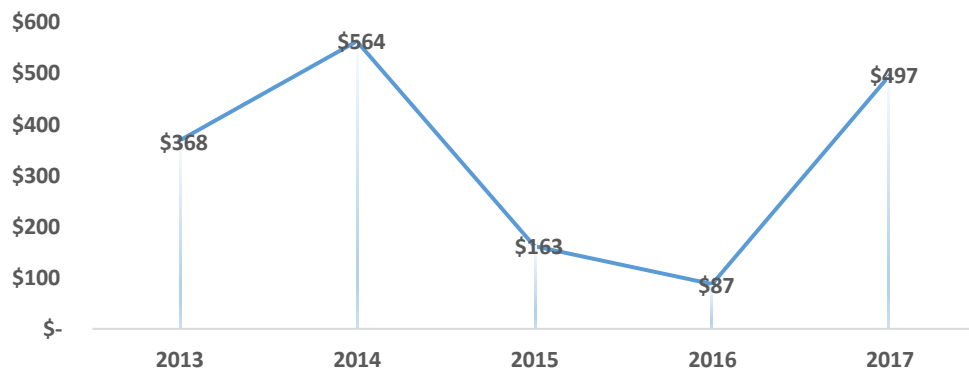
STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

For the Fiscal Years Ended June 30 (Dollars in Thousands)

	2017	2016	Increase (Decrease)	
			Amount	Percentage
Additions				
Employer contributions	\$ 198,727	\$ 191,094	\$ 7,633	4%
Member contributions	62,160	56,069	6,091	11%
Net investment income	436,603	24,112	412,491	1711%
Net securities lending income	46	278	(232)	-83%
Other	27	4,910	(4,883)	-99%
Total additions	697,563	276,463	421,100	152%
Deductions				
Service retirement benefits	166,975	157,513	9,462	6%
Disability retirement benefits	22,690	21,091	1,599	8%
Survivor, death and other benefits	699	894	(195)	-22%
Member refunds	2,876	3,366	(490)	-15%
Administrative expenses	5,983	5,962	21	0%
Information Technology expenses	996	714	282	39%
Other expenses	30	11	19	173%
Total deductions	200,249	189,551	10,698	6%
Changes in Net Position	497,314	86,912	410,402	472%
Net position restricted for pensions				
Beginning of year	3,541,388	3,454,476	86,912	3%
End of year	\$4,038,702	\$3,541,388	\$497,314	14%

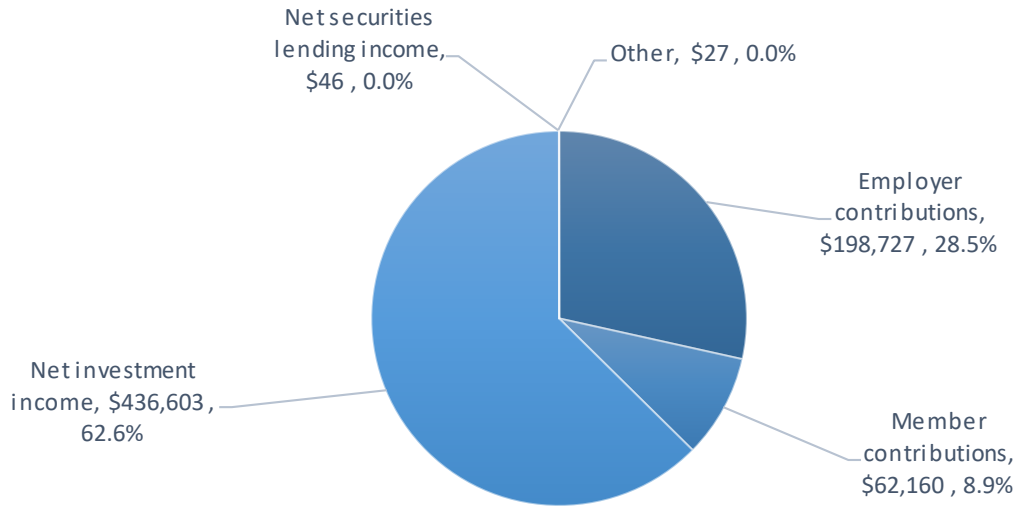
CHANGES IN SAMCERA'S NET POSITION

For the Fiscal Years Ended June 30 (Dollars in Millions)



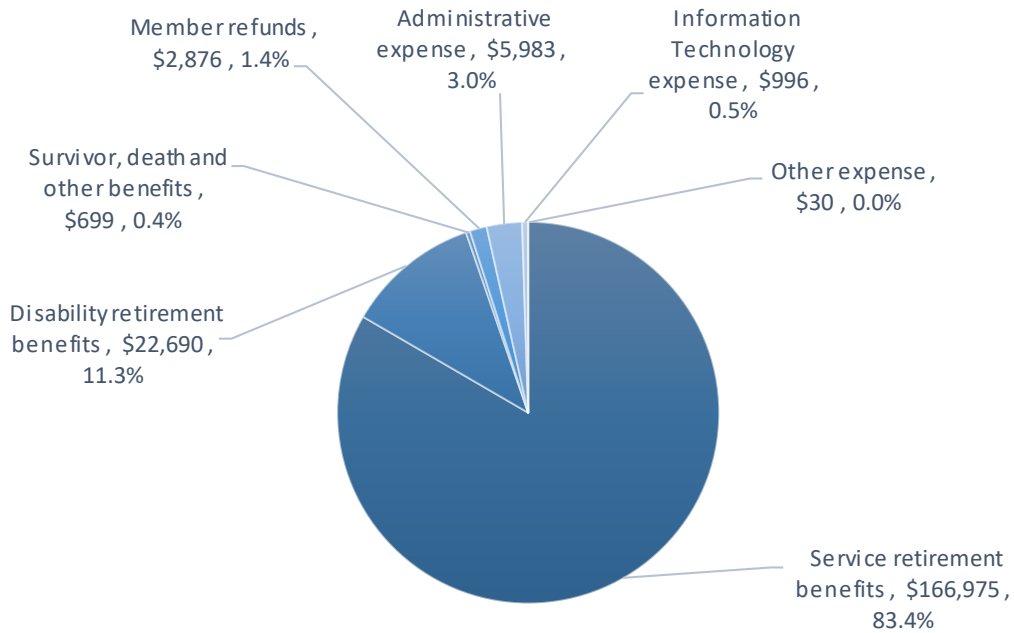
ADDITIONS TO FIDUCIARY NET PENSION

For the Fiscal Year Ended June 30, 2017 (Dollars in Thousands)



DEDUCTIONS FROM FIDUCIARY NET POSITION

For the Fiscal Year Ended June 30, 2017 (Dollars in Thousands)



- \$2 million increase in disability retirement benefits. During the year, County Counsel made a concerted effort to resolve all pending appeals for disability benefits received in the current and previous years.

Actuarial Valuation

SamCERA engages an independent actuarial firm, Milliman, to perform an annual actuarial valuation to monitor its funding status and funding integrity. The valuation reassesses the magnitude of SamCERA's benefit commitments, in comparison with the assets expected to be available to support those commitments. Valuation results will be used to determine employer and member contribution rates for funding purposes.

In the actuarial valuation, the actuary uses several assumptions with regards to SamCERA's members (such as their life expectancy, projected salary increases, and the age at which members may retire) to determine the assets, liabilities, and future contribution requirements. The actuarial economic and demographic assumptions selected are used to project as closely as possible the actuarial cost of the plan. The projection permits an orderly method for setting aside contributions today to provide benefits in the future, and maintain equity among generations of members and taxpayers.

Triennial Experience Study

Right before year-end, SamCERA's actuary performed a triennial "experience study" to reassess the reasonableness of the assumptions used in the valuation. These assumptions are critical in assisting the

Retirement Fund in pre-funding for the benefits prior to retirement.

In June 2017, based on the actuary's recommendations, the Retirement Board adopted several new economic and demographic assumptions for the valuation as of June 30, 2017.

For the economic assumptions, the investment return was adjusted from 7.00% to 6.75%, the general wage growth as well as the payroll growth from 3.25% to 3.00%, and the price inflation from 2.75% to 2.50%.

For the demographic assumptions, the Board approved several changes in alignment with the results of the recent "experience study" that are used to predict future member behavior, such as retirement, disability, and mortality.

Plan Assets, Liabilities, and Funded Ratio

One measure of the funding adequacy of the retirement system is the Funded Ratio. According to the latest actuarial valuation as of June 30, 2017, the plan's funded ratio (actuarial value of assets to actuarial accrued liabilities) increased to 84.3% as of June 30, 2017, from 83.1% as of June 30, 2016. The increase resulted primarily from employer contributions to amortize the UAAL and investment earnings in excess of the assumed rate. The increase was partially offset by the increase in UAAL due to assumption changes discussed earlier.

As of June 30, 2017, the actuarial value of plan assets was \$4.0 billion, and the actuarial accrued liability was \$4.7 billion. The difference between these two

amounts represents the UAAL (the gap between promised benefits and the funding available to meet those obligations), which amounted to \$743.1 million (or 145.7% of the collective covered payroll of participating employers, totaling \$510.1 million for the fiscal year ended June 30, 2017). The assets used in the calculation of the funded ratio include the values of the County's Supplemental Contribution Account and the San Mateo County Mosquito and Vector Control District's Supplemental Contribution Account.

SamCERA's Fiduciary Responsibilities

SamCERA's Board of Retirement and management staff are fiduciaries of the pension trust fund. Under the California Constitution and the County Employees' Retirement Law of 1937, assets of the retirement system can only be used for the exclusive benefit of plan participants and their beneficiaries.

Requests for Information

This financial report is designed to provide SamCERA's Board of Retirement, members, investment managers, and interested parties with a general overview of SamCERA's financial position and to show accountability for the funds received. Additional information is available on SamCERA's website at www.samcera.org.

Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to:

San Mateo County Employees'
Retirement Association
100 Marine Parkway, Suite 125
Redwood City, CA 94065
Telephone: (650) 599-1234
Facsimile: (650) 591-1488

This page intentionally left blank.

STATEMENT OF FIDUCIARY NET POSITION

June 30, 2017 (with comparative amounts as of June 30, 2016)

	2017	2016
ASSETS		
Cash and short-term investments:		
Cash and cash equivalents	\$ 192,194,061	\$ 130,111,362
Cash management overlay	25,207,998	26,249,148
Securities lending cash collateral	-	88,363,269
Total cash and short-term investments	<u>217,402,059</u>	<u>244,723,779</u>
Receivables:		
Contributions	8,622,173	7,812,557
Due from broker for investments sold	8,273,972	9,809,813
Investment income	8,406,749	4,886,171
Securities lending income	-	26,788
Other	95,657	100,028
Total receivables	<u>25,398,551</u>	<u>22,635,357</u>
Prepaid expense	7,669	7,669
Investments at fair value:		
Equity	1,717,793,138	1,723,373,856
Fixed Income	738,544,220	610,607,729
Alternatives	480,730,879	404,376,940
Risk Parity	291,757,142	280,336,352
Inflation Hedge	573,336,864	349,680,120
Total investments at fair value	<u>3,802,162,243</u>	<u>3,368,374,997</u>
Capital assets	8,041,551	5,162,123
Less: accumulated depreciation	(412,178)	-
	<u>7,629,373</u>	<u>5,162,123</u>
Total assets	<u>4,052,599,895</u>	<u>3,640,903,925</u>
LIABILITIES		
Payable - Investment management fees	1,822,557	1,807,507
Due to broker for investments purchased	9,416,634	7,582,018
Securities lending collateral due to borrowers	-	88,363,269
Other	2,658,714	1,762,634
Total liabilities	<u>13,897,905</u>	<u>99,515,428</u>
NET POSITION RESTRICTED FOR PENSIONS	\$ 4,038,701,990	\$ 3,541,388,497

The accompanying Notes to the Basic Financial Statements are an integral part of these financial statements.

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION*For the Fiscal Year Ended June 30, 2017**(with comparative amounts for the fiscal year ended June 30, 2016)*

	2017	2016
ADDITIONS		
Contributions:		
Employer	\$ 198,727,135	\$ 191,094,488
Member	62,160,101	56,068,706
Total contributions	<u>260,887,236</u>	<u>247,163,194</u>
Investment income:		
Interest and dividends	38,445,658	36,703,717
Net appreciation in fair value of investments	431,845,614	22,197,249
Total investment income	<u>470,291,272</u>	<u>58,900,966</u>
Less: investment expenses	<u>(33,688,058)</u>	<u>(34,789,209)</u>
Net investment income	<u>436,603,214</u>	<u>24,111,757</u>
Securities lending income:		
Earnings	68,090	423,019
Rebates	(10,072)	(78,186)
Fees	<u>(12,747)</u>	<u>(67,054)</u>
Net securities lending income	<u>45,271</u>	<u>277,779</u>
Other additions	<u>27,221</u>	<u>4,910,228</u>
Total additions	<u>697,562,942</u>	<u>276,462,958</u>
DEDUCTIONS		
Member benefits:		
Service retirement benefits	166,975,634	157,513,099
Disability retirement benefits	22,689,813	21,090,529
Survivor, death and other benefits	<u>698,946</u>	<u>893,633</u>
Total member benefits	<u>190,364,393</u>	<u>179,497,261</u>
Member refunds	2,875,887	3,366,437
Administrative expenses	5,983,356	5,961,802
Information technology expenses	995,979	714,347
Other expenses	<u>29,834</u>	<u>10,942</u>
Total deductions	<u>200,249,449</u>	<u>189,550,789</u>
Net Increase	<u>497,313,493</u>	<u>86,912,169</u>
NET POSITION RESTRICTED FOR PENSIONS		
Beginning of year	3,541,388,497	3,454,476,328
End of year	<u>\$ 4,038,701,990</u>	<u>\$ 3,541,388,497</u>

The accompanying Notes to the Basic Financial Statements are an integral part of these financial statements.

NOTES TO THE BASIC FINANCIAL STATEMENTS

Note 1: Plan Description

The San Mateo County Employees' Retirement Association (SamCERA) is governed by the California Constitution, the County Employees Retirement Law of 1937 (the CERL - a component of the California Government Code), the California Public Employees' Pension Reform Act of 2013 (PEPRA), and the regulations, procedures and policies adopted by the Board of Retirement (the Board). SamCERA is not subject to the provisions of the Employee Retirement Income Security Act of 1974 (ERISA).

General

SamCERA is a cost-sharing multiple-employer, defined benefit pension plan established to provide pension benefits for substantially all permanent employees of the County of San Mateo (the County), the San Mateo County Mosquito and Vector Control District (the District), and the Superior Court of the County of San Mateo (the Court). Because of its close relationship with the County, SamCERA is a blended component unit, fiduciary in nature, of the County and is reported as a pension trust fund of the participating employers.

Under the CERL, the management of SamCERA is vested in the Board consisting of nine members: the first member is the County Treasurer; the second and third members are general members of SamCERA elected by their peers; the fourth, fifth, sixth and ninth members are qualified electors of the County and

appointed by the County Board of Supervisors; the seventh member is elected by and a member of SamCERA's safety membership; and the eighth member is a retired member elected from the retired membership. In addition, there is one elected Safety Member Alternate and one elected Retired Member Alternate.

Subject to the following fiduciary responsibilities, the Board oversees and guides the pension plans:

- (1) solely in the interest of, and for the exclusive purpose of, providing economic benefits to participants and their beneficiaries;
- (2) with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with these matters would use in the conduct of an enterprise of a like character with like objectives; and
- (3) diversify the investments of the plan to minimize the risk of loss and to maximize the rate of return unless, under the circumstances, it is clearly prudent not to do so.

Pension Plans

SamCERA has seven pension plans, which cover members classified as general, safety (those serving in law enforcement), and probation. The table on the following two pages provides details for each of these plans.

In addition to the basic member and the cost sharing contributions, all members are required to make contributions to fund the

BENEFIT PLANS

June 30, 2017

	<u>General Member</u>	<u>Probation Member</u>	<u>Safety Member</u>
PLAN 1			
Hire Date	On or before 7/5/80	On or before 7/5/80	On or before 7/5/80
Benefit factor	2%@55.5	3%@50	3%@50
Maximum COLA	5%	3%	5%
FAC Period	Highest 1 year	Highest 1 year	Highest 1 year
Eligibility for Service Retirement	Age 50 with 10 years of service; any age with 30 years of service; or age 70 regardless of years of service.	Age 50 with 10 years of service; or any age with 20 years of service.	Age 50 with 10 years of service; or any age with 20 years of service.
PLAN 2			
Hire Date	7/6/80 - 7/12/97	7/6/80 - 7/12/97	7/6/80 - 7/12/97
Benefit factor	2%@55.5	3%@50	3%@50
Maximum COLA	3%	3%	3%
FAC Period	Highest 1 year	Highest 1 year	Highest 1 year
Eligibility for Service Retirement	Age 50 with 10 years of service; any age with 30 years of service; or age 70 regardless of years of service.	Age 50 with 10 years of service; or any age with 20 years of service.	Age 50 with 10 years of service; or any age with 20 years of service.
PLAN 3			
Hire Date	On or before 12/22/12, a non-contributory plan.	Not applicable	Not applicable
	(After five years of service, Plan 3 members can elect membership under the eligible contributory plan. Members currently working in a contributory plan with Plan 3 service may purchase an upgrade of their Plan 3 service. Plan 3 closed to new members effective December 23, 2012.)		
	(If retirement occurs prior to age 65, benefit amount will be adjusted by an actuarial equivalent factor.)		
Maximum COLA	No COLA	Not applicable	Not applicable
FAC Period	Highest 3 years (non-consecutive)	Not applicable	Not applicable
Eligibility for Service Retirement	Age 65 with 10 years of service; reduced benefit at age 55 with 10 years of service.	Not applicable	Not applicable

(Continued)

Note 1: Plans 1, 2, 3, and 4 are closed to new entrants. However, eligible general members of the San Mateo County Mosquito and Vector Control District with reciprocity may participate in Plan 4.

Note 2: FAC Period stands for "Final Average Compensation" Period.

	<u>General Member</u>	<u>Probation Member</u>	<u>Safety Member</u>	
PLAN 4	Hire Date	7/13/97 - 8/6/11 (except Plan 5 transfers discussed under Plan 5 below)	7/13/97 - 7/9/11	7/13/97 - 1/7/12
		(Note: Plan 4 closed simultaneously with the implementation of Plan 5 and Plan 6.)		
	Benefit factor	2%@55.5	3%@50	3%@50
	Maximum COLA	2%	2%	2%
	FAC Period	Highest 3 years (non-consecutive)	Highest 3 years (non-consecutive)	Highest 3 years (non-consecutive)
	Eligibility for Service Retirement	Age 50 with 10 years of service; any age with 30 years of service; or age 70 regardless of years of service.	Age 50 with 10 years of service; or any age with 20 years of service.	Age 50 with 10 years of service; or any age with 20 years of service.
PLAN 5	Hire Date	8/7/11 - 12/31/12	7/10/11 - 12/31/12	1/8/12 - 12/31/12
		(Note: General Plan 5 members after 10 years of service can elect to transfer to Plan 4 and must pay the total actuarial equivalent cost of the increase in past service benefits at the date of transfer.)		
	Benefit factor	2% @61.25	3%@55	3%@55
	Maximum COLA	2%	2%	2%
	FAC Period	Highest 3 years (non-consecutive)	Highest 3 years (non-consecutive)	Highest 3 years (non-consecutive)
	Eligibility for Service Retirement	Age 50 with 10 years of service; any age with 30 years of service; or age 70 regardless of years of service.	Age 50 with 10 years of service; or any age with 20 years of service.	Age 50 with 10 years of service; or any age with 20 years of service.
PLAN 6	Hire Date	Not applicable	7/10/11 - 12/31/12	1/8/12 - 12/31/12
	Benefit factor	Not applicable	2%@50	2%@50
	Maximum COLA	Not applicable	2%	2%
	FAC Period	Not applicable	Highest 3 years (non-consecutive)	Highest 3 years (non-consecutive)
	Eligibility for Service Retirement	Not applicable	Age 50 with 10 years of service; or any age with 20 years of service.	Age 50 with 10 years of service; or any age with 20 years of service.
	PLAN 7	Hire Date	On or after 1/1/13	On or after 1/1/13
Benefit factor		2%@62	2.7%@57	2.7%@57
Maximum COLA		2%	2%	2%
FAC Period		Highest 36 consecutive months	Highest 36 consecutive months	Highest 36 consecutive months
Eligibility for Service Retirement		Age 52 with 5 years of service.	Age 50 with 5 years of service.	Age 50 with 5 years of service.

Note 1: Plans 1, 2, 3, and 4 are closed to new entrants. However, eligible general members of the San Mateo County Mosquito and Vector Control District with reciprocity may participate in Plan 4.

Note 2: FAC Period stands for "Final Average Compensation" Period.

Cost of Living Adjustments (COLA) except those in Plan 3, those with benefits negotiated under the Board of Supervisors bargaining unit, and the District members.

Pension Plan Membership

Plan membership as of June 30, 2017, is displayed in the table below.

Benefit Provisions

SamCERA provides basic service retirement, disability, and death benefits based on defined benefit formulas, which use final average compensation, years of service, and age factors to calculate benefits payable. In addition, SamCERA

provides annual COLA upon retirement for members of Plans 1, 2, 4, 5, 6, and 7. The benefits of Plan 3 are reduced by a portion of the Social Security benefits received by the member. The CERL vests the County Board of Supervisors with the authority to initiate benefits. Each participating employer can make certain limited adjustment for their member benefits.

Active Member Benefits. Members are entitled to receive a retirement benefit based on their plan membership. The seven pension plans cover members classified as general, safety, or probation.

SAMCERA MEMBERSHIP

June 30, 2017

	Plan 1	Plan 2	Plan 3	Plan 4	Plan 5	Plan 6	Plan 7	Total
RETIREES AND BENEFICIARIES CURRENTLY RECEIVING BENEFITS								
General	1,603	1,913	130	675	1	-	-	4,322
Safety	276	194	-	59	-	-	-	529
Probation	28	54	-	23	-	-	-	105
Subtotal	1,907	2,161	130	757	1	-	-	4,956
TERMINATED MEMBERS ENTITLED TO RECEIVE BENEFITS IN THE FUTURE (DEFERRED)								
General	10	324	89	725	50	-	152	1,350
Safety	1	22	-	45	5	-	4	77
Probation	-	19	-	38	1	-	2	60
Subtotal	11	365	89	808	56	-	158	1,487
CURRENT MEMBERS, VESTED								
General	11	658	70	2,076	88	-	13	2,916
Safety	1	64	-	249	12	-	1	327
Probation	1	38	-	189	2	-	-	230
Subtotal	13	760	70	2,514	102	-	14	3,473
CURRENT MEMBERS, NON-VESTED								
General	-	-	6	33	191	-	1,414	1,644
Safety	-	-	-	1	47	-	128	176
Probation	-	-	-	-	5	1	38	44
Subtotal	-	-	6	34	243	1	1,580	1,864
Total Members	1,931	3,286	295	4,113	402	1	1,752	11,780

Note: Plans 1, 2, 3, and 4 are closed to new entrants. However, eligible general members of the San Mateo County Mosquito and Vector Control District with reciprocity may participate in Plan 4.

Deferred Member Benefits. A member is entitled to withdraw his/her member contributions plus accumulated interest upon termination of employment. If the member enters a reciprocal retirement system within 180 days, the member can elect to leave the accumulated contributions with SamCERA and receive a deferred retirement benefit when eligible. Eligible contributory members with five years of service (employees, either permanent or part-time, with the equivalent of five years of full-time service) or non-contributory members in Plan 3 with ten years of service may elect a deferred retirement when eligible by leaving the accumulated contributions with SamCERA.

Disability Benefits. A disability retirement may be service-connected or non-service-connected. Service credit requirements do not apply for members applying for service-connected disability benefits. If members are found permanently incapacitated from performing their job as a result of injury or disease arising out of or in the course of employment, the members are eligible for disability retirement benefits. Members who apply for non-service connected disability must have five or more years of eligible service credit.

Survivor Benefits. Survivor benefits are payable to eligible beneficiaries of retired members. Eligible beneficiaries may receive a percentage of a deceased member's retirement benefit based upon the retirement option selected by the member at the time of retirement.

Cost of Living Adjustments (COLA). As of April 1 of each year, the Board will adjust

the retirement benefits in accordance with an annual increase in the cost of living as of January 1 of each year to the nearest one-half of one percent.

The COLA is based on information released by the Bureau of Labor Statistics Consumer Price Index for All Urban Consumers in the San Francisco, Oakland, and San Jose Bay Area. The increase is capped at 5% for General and Safety members in Plan 1; 3% for Probation members in Plan 1 and all members in Plan 2; and 2% for members in Plans 4, 5, 6, and 7. Plan 3 has no COLA.

Note 2: Summary of Significant Accounting Policies

Basis of Accounting

The accompanying financial statements are prepared on the accrual basis of accounting and in accordance with Generally Accepted Accounting Principles (GAAP) in the United States of America. The basis of accounting indicates the timing of transactions or events for recognition in the financial statements.

Employer and member contributions are recognized in the period in which contributions are due pursuant to legal requirements. Benefits and refunds are recognized when due and payable in accordance with plan terms. Investment income is recognized as revenue when earned, and expenses are recognized when incurred. The net appreciation (or depreciation) in the fair value of investments is recorded as an increase (or decrease) to investment income, which includes both realized and unrealized gains and losses on investments, based upon investment valuations.

SamCERA is an independent public employee retirement system with its own governing board. SamCERA's management is responsible for maintaining appropriate internal controls and preparing SamCERA's financial statements. Because of its financial relationship with the County (the primary plan sponsor), SamCERA is classified as a blended component unit of the County (fiduciary in nature) and reported as a pension trust fund in the County's financial statements.

Investment Policy and Valuation

The Board has exclusive control of SamCERA's investments. Government Code Section 31595 of the CERL authorizes the Board to invest, or delegate the authority to invest, the assets of SamCERA in any investment allowed by statute and deemed prudent in the informed opinion of the Board.

The Investment Policy of SamCERA seeks to optimize long-term returns within acceptable risk parameters. The Board periodically reviews the asset allocation in response to changing market conditions that may affect forward-looking expected returns of asset classes.

In October 2016, the Board completed an in-depth asset-liability study and approved a new target asset allocation, reducing exposure to public equity and increasing allocations to alternatives, inflation hedge, and fixed income. The new policy consists of 36% in public equity, 23% in fixed income, 13% in alternatives, 8% in risk parity, and 20% in inflation hedge. Implementation of the new policy is anticipated to include multiple phases and will take more than one year to complete.

As of June 30, 2017, the target asset allocation incorporated into SamCERA's Investment Policy and detailed in the Investment Section only reflects the portion of the newly adopted allocation that has already been implemented. It does not reflect the portion of the new target asset allocation that has yet to be implemented, which will take more than one year to complete. Due to the multi-stage process, SamCERA's Investment Policy only captures the incremental changes made during the fiscal year so that the actual allocation does not significantly deviate from policy.

SamCERA records investment transactions on the trade date. Investments are reported at fair value, which represents 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.

Governmental Accounting Standards Board (GASB) establishes a fair value hierarchy based on the three distinct types of input to develop the fair value measurements.

- Level 1 reflects measurements based on quoted prices (unadjusted) for identical assets or liabilities in active markets that a government can access at the measurement date.
- Level 2 reflects measurements based on inputs, other than quoted prices, that are observable for an asset or a liability either directly or indirectly.
- Level 3 reflects measurements based on unobservable inputs for an asset or a liability.

The valuation technique for each type of investment is as follows:

Cash and cash equivalents. Cash is pooled with other funds of the County or custodians, as appropriate, to earn a higher rate of return than could be earned by investing the funds individually. In addition to the pooled cash with the County and custodians, all highly liquid investments with maturities of three months or less when purchased, are considered cash equivalents.

Short-term investments. Short-term investments are reported at cost, which approximates fair value. Short-term investments include cash held in the money market and securities that are readily convertible to cash.

Domestic and international fixed income securities and equities. Valuations for publicly traded securities, such as stocks and bonds, are provided by SamCERA's custodian, the Northern Trust Corporation, based on end-of-day prices from external pricing vendors. The fair value of public market equity and fixed income investments held in Institutional Commingled Funds or Partnerships are typically provided by a third party fund administrator, who performs this service for the fund manager.

Real estate. Real estate assets are reported at fair value utilizing an income approach to valuation. An independent appraisal is conducted every quarter to determine the fair value of the real estate assets.

Private equity and private real assets. Private equity and private real asset

partnerships are reported based on the fair value provided by the General Partner on a quarterly basis. The General Partner considers the financial conditions and operating results of the portfolio companies, the nature of the investments, marketability, and other relevant factors.

Risk parity, hedge funds, and liquid real assets pool. These investments are reported based on the fair value provided by a third party administrator, who performs this service for the fund manager.

Foreign Currency Transactions

Gains and losses from foreign currency transactions during the year (including translation of international investments at fiscal year-end rates of exchange) are recorded as investment income. Forward currency contracts are used by SamCERA's investment managers to control currency exposure and facilitate the settlement of international security purchase and sale transactions.

These contracts are agreements to exchange different currencies at specified rates and settlement dates. Differences between the contract and market exchange rates at settlement result in gains or losses, which are included in net investment income. Risks may arise from the possible inability of counterparties to meet the terms of their contracts as well as from movements in exchange and interest rates.

Securities Lending Activity

Securities lending transactions are short-term collateralized loans of SamCERA's securities for the purpose of generating additional investment income. For each

securities lending transaction, SamCERA receives either cash collateral or non-cash collateral. The underlying securities out on loan are reported on SamCERA's Statement of Fiduciary Net Position as if the lending transaction had not occurred.

In accordance with Governmental Accounting Standards Board (GASB) Statement No. 28, *Accounting and Financial Reporting for Securities Lending Transactions*, cash collateral held (or any security that can be sold or pledged without a borrower default) is separately reported on the Statement of Fiduciary Net Position among the current assets. A corresponding liability of an equal amount (the obligation to return the cash collateral) is reported simultaneously.

Non-cash collateral held that cannot be sold or pledged without a borrower default is not reported on the Statement of Fiduciary Net Position nor is there a corresponding liability reported on this statement. As of June 30, 2017, SamCERA did not participate in any securities lending activity due to changes in the portfolio's investment manager structure and lending restrictions.

Income from Investments

Interest income is recognized as it accrues. Dividend income is recognized when it is declared. Realized as well as unrealized gains and losses on investments are combined and reported as the net appreciation (depreciation) in the fair value of investments.

Receivables

Receivables consist primarily of interest,

dividends, investments in transition (traded but not yet settled), and contributions owed by participating employers.

Capital Assets

Capital assets, including intangible assets, are items with an initial unit cost greater than \$5,000 and an estimated useful life in excess of three years. Capital assets are reported at acquisition value, net of accumulated depreciation.

Acquisition value is the price that would be paid to acquire an asset with equivalent service capacity in an orderly market transaction at the acquisition date.

Depreciation is determined using the straight-line method over the estimated useful lives of the assets, ranging from three to ten years. Most capital assets are information technology related. The estimated useful life for hardware is determined to be five years, and for software is ten years.

The routine upgrade of information technology systems, hardware, software, and maintenance are deemed appropriate as expenses for the current year. As of June 30, 2017, SamCERA reported \$7.6 million in capital assets, net of accumulated depreciation of \$0.4 million.

Estimates

The preparation of financial statements in accordance with GAAP in the United States of America may require management to make estimates and assumptions that affect certain amounts and disclosures. Accordingly, actual results may differ from those estimates.

Subsequent Events

Subsequent events are those events or transactions that occur subsequent to the effective date of the financial statements, but prior to the issuance of final reports (from July 1 through October 23 of 2017), which may have a material effect on the financial statements or disclosures contained therein.

After the fiscal year-end, the Board approved a \$20 million commitment to a private real assets partnership on July 25, 2017, and a \$30 million commitment to a real estate fund on August 22, 2017.

Note 3: Funding Policy

The CERL establishes the basic contribution obligations for employers and members to the pension plan. The employer and member contribution rates adopted by the Board are based on recommendations from an independent actuary in accordance with membership type (General, Safety, and Probation) and the plan in which a member belongs.

The funding objective of the pension plan is to establish employer and member contribution rates which, over time, will remain as a level percentage of payroll. Participating employers are required by statute to contribute amounts necessary to fund the estimated benefits accruing to members not otherwise funded by expected investment earnings or member contributions.

Employer contribution rates for each plan are determined pursuant to Government Code Section 31453 of the CERL, using the entry age normal cost method based upon

a level percentage of projected payroll. These rates include an estimated amount necessary to finance benefits earned by members during the current year (normal cost) and an amount to amortize the unfunded actuarial accrued liability (UAAL).

Employee contributions are of three types: basic contributions, COLA, and cost sharing. Except for members in Plan 3, all other members are required to make contributions as described below:

- **Basic contributions** are required of all members as determined by the entry age and class of each member.
- **Cost sharing** applies to General members in Plans 1, 2, and 4 (except the District) and Safety and Probation members in Plans 1, 2, 4, and 5. The cost sharing contribution rates vary among bargaining units.
- **COLA** applies to almost all members of Plans 1, 2, 4, 5, and 6. Members of the District and the County's Board of Supervisors bargaining unit with a most recent hire date before August 7, 2011, do not contribute towards the COLA benefit. All other members in these plans are required to contribute 50% of the cost of COLA.

In determining both employer and member contribution rates, assumptions are made about future events that may affect the amount and timing of benefits to be paid and assets to be accumulated. Methods and assumptions used to determine contribution rates are discussed in the Required Supplementary Information and the Actuarial Section.

The actuarial valuation of plan assets and liabilities is normally carried out as of June 30 of each year. The contribution rates as determined at June 30, 2017, are subject to “one year” deferral. Thus, the new contribution rates in the June 2017 valuation are effective on July 1, 2018.

closed 15 year period). The member contribution rate for all plans combined for the same period was 11.92%. These contribution rates were actuarially determined. The employer statutory contributions, including the normal cost and the UAAL, are separately shown in the table below.

Note 4: Employer Contributions

For the fiscal year ended June 30, 2017, the employer statutory contribution rate for all plans combined was 31.96% of actual covered payroll (with 10.03% attributed to the normal cost and 21.93% to the amortization of the UAAL over a new

EMPLOYER CONTRIBUTION RATES AS A PERCENTAGE OF COVERED PAYROLL

	Fiscal Year		
	2017	2016	Change
Normal Cost	10.03%	10.80%	-0.77%
UAAL Amortization	21.93%	23.94%	-2.01%
Total Contribution Rate	31.96%	34.74%	-2.78%

SCHEDULE OF EMPLOYER CONTRIBUTIONS

(Dollars in Thousands)

Fiscal Year Ended June 30	(a)	(b)	(a) - (b)	Percentage of Actuarially Determined Contribution Received
	Actual Employer Contribution	Actuarially Determined Contribution	Supplemental Contribution	
2008	\$105,340	\$105,340	\$ -	100%
2009	106,123	106,123	-	100%
2010	106,265	106,265	-	100%
2011	150,475	150,475	-	100%
2012	150,950	139,407	11,543	100%
2013	144,308	131,294	13,014	100%
2014	202,877	152,877	50,000 ⁽¹⁾	100%
2015	180,704	169,814	10,890 ⁽²⁾	100%
2016	191,094	170,046	21,048 ⁽³⁾	100%
2017	198,727	164,877	33,850 ⁽⁴⁾	100%

⁽¹⁾ The County made a supplemental contribution of \$50 million to accelerate the pay down of the County's Unfunded Actuarial Accrued Liability (UAAL).

⁽²⁾ The County made a supplemental contribution of \$10.9 million to accelerate the pay down of the County's UAAL.

⁽³⁾ The County and the District contributed additional funding of \$19.5 million and \$1.5 million, respectively, to accelerate the payoff of their UAAL.

⁽⁴⁾ The County and the District contributed additional funding of \$33.6 million and \$0.25 million, respectively, to accelerate the payoff of their UAAL.

The employer normal cost rate decreased from 10.80% to 10.03% of covered payroll. The decrease was due primarily to a larger portion of the active population being members in California Public Employees' Pension Reform Act of 2013 (PEPRA) plans. In addition, negotiated increases in some members' contribution rates due to additional COLA sharing also helped reduce the contribution rates.

The employers' statutory contribution rate to finance the UAAL over 15 years decreased from 23.94% to 21.93% of covered payroll. The decrease was largely driven by two factors: (1) the recognition of investment gains from prior years under the asset smoothing method, and (2) the amortization of supplemental contributions from the County and the District over the year.

Supplemental Contributions from the County

In November 2013, the County reached an agreement with SamCERA to accelerate the pay down of the County's UAAL. Under this agreement, the County provided a supplemental contribution of \$50 million in fiscal year 2014 and will continue to contribute an additional \$10 million annually for the following nine years. A new account, known as the County Supplemental Contribution Account (CSCA), was set up to separately account for the supplemental contributions.

Deposits in the CSCA less than six months prior to the regular crediting dates of June 30 or December 31 will receive interest credit at the actual market investment return rate. Deposits for more than six

months prior to a crediting date will receive interest at the actuarially calculated return.

In fiscal year 2017, the County contributed \$33.6 million to the CSCA in addition to its annual required contribution. The CSCA had an aggregate balance of \$118.4 million at year-end.

The County paid its annual required contributions for fiscal year 2017 via two semi-annual prepayments (one in July 2016 and another in January 2017). The prepayments were based on the adopted actuarial contribution rate and the projected covered payroll by plan, discounted by the assumed actuarial rate of return.

Throughout the year, the prepayments were periodically reduced by actual contributions as determined by the adopted actuarial contribution rate and the actual covered payroll by plan. After year-end, SamCERA performed a "true-up" calculation to ensure that the County's annual statutory contribution to SamCERA was fully settled. The excess balance in the prepayment account will be applied towards the County's contribution for fiscal year 2017-18.

Supplemental Contributions from the San Mateo County Mosquito and Vector Control District

In September 2015, the District entered an agreement with SamCERA to pay down its UAAL with a single payment of \$1.5 million in addition to its statutory contribution for fiscal year 2016. This amount was remitted to SamCERA on October 29, 2015.

SamCERA established a new account, the District Supplemental Contribution Account (DSCA), to separately account for the District's supplemental contributions. Deposits in the DSCA less than six months prior to the regular crediting dates of June 30 or December 31 will receive interest credit at the actual market investment return rate. Deposits for more than six months prior to the crediting date will receive interest at the actuarially calculated return.

In fiscal year 2017, the District contributed \$0.25 million to the DSCA in addition to its annual required contribution. As of June 30, 2017, the DSCA had an aggregate balance of \$2.0 million.

Note 5: Deposits and Investments

The Board established an Investment Policy in accordance with applicable local, state, and federal laws. The CERL vests the Board with exclusive control over SamCERA's investment portfolio. Except as otherwise expressly restricted by the California Constitution and by regulation, the Board may, in its discretion, invest, or delegate the authority to invest, the assets of SamCERA in any investment allowed by statute and deemed prudent in the informed opinion of the Board.

Deposits

SamCERA has deposits with an outside financial institution, the Northern Trust Corporation, as well as with the County in an investment pool account. Deposits with Northern Trust Corporation are swept into a pooled money market fund, which invests in securities such as repurchase

agreements, commercial paper, U.S. Treasury bills and notes. Earnings and losses from the County investment pool are shared among pool participants. All deposits are reported at cost, which approximates fair value.

Custodial Credit Risk – Deposits. The custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, SamCERA will not be able to recover deposits nor be able to recover collateral securities that are in the possession of an outside party. SamCERA has no general policy on custodial credit risk for deposits.

SamCERA maintains cash deposits to support its investment activities and operational needs. As of June 30, 2017, \$162.2 million of cash was held in a pooled money market fund with Northern Trust Corporation, and \$20.7 million in the investment pool with the County Treasurer. Cash held by investment managers at year-end amounted to \$9.3 million, which is swept daily into a pooled short-term investment fund managed by the Northern Trust Corporation.

Cash held with the Northern Trust Corporation in the amount of \$475,259 is uninsured and uncollateralized. Thus, this amount is subject to custodial credit risk. SamCERA does not have a general policy addressing custodial credit risk. The fair value of SamCERA's position in the pool is the same as the value of the pool shares.

The participation in the County investment pool is voluntary. The County investment pool is not registered with the Securities

and Exchange Commission as an investment company. In accordance with Article 6 Section 27131 of the California Government Code, the County Board of Supervisors established an eight-member County Treasury Oversight Committee to oversee the management of public funds in the County investment pool.

Pool participants can withdraw no more than 12.5% of their deposits per month, based on the month-end balance of the prior month. All requests for withdrawal must be made in writing to the County Treasurer at least 24 hours in advance.

Investments

SamCERA's investments are managed by independent investment management firms in accordance with the guidelines and controls specified in the Investment Policy and contracts executed with the Board. A third party institution is used as an independent custodian, the Northern Trust Corporation.

Investment Policy. The Investment Policy is strategized to reduce risk through a prudent diversification of the investment portfolio across a broad selection of distinct asset classes. The Board undertakes an in-depth asset-liability study every three to five years. In October 2016, the Board completed its most recent asset-liability study. The Board approved a new target asset allocation which will be implemented in multiple phases and is expected to take more than one year to complete.

Target Asset Allocation. As of June 30, 2017, SamCERA's target asset allocation consists of 42% in public equity, 21% in fixed income, 13% in alternatives, 8% in risk

parity, and 16% in the inflation hedge asset class. The actual asset allocation at fiscal year end consisted of 42.7% in public equity, 18.4% in fixed income, 12.0% in alternatives, 7.3% in risk parity, 14.3% in inflation hedge and 5.3% in cash and cash equivalents.

Money-Weighted Rate of Return. The money-weighted rate of return expresses investment performance, net of pension plan investment expense, adjusted for the timing of cash flows and the changing amounts actually invested. For the fiscal year ended June 30, 2017, the annual money-weighted rate of return was 12.48% on SamCERA's investments, net of investment manager fees.

Long-Term Expected Rate of Return. The long-term expected rate of return on pension plan investments was determined using a building-block method. Under this method, a median (or expected) geometric rate of return is developed for each major asset class. The median rates are combined to produce the long-term expected rate of return by weighting the expected future rates of return by the target asset allocation percentage.

LONG-TERM EXPECTED RATE OF RETURN

June 30, 2017

Asset Class	Target Allocation	Long-Term Expected Rate of Return
Equity	42%	6.9%
Fixed Income	21%	3.9%
Alternatives	13%	7.6%
Risk Parity	8%	5.5%
Inflation Hedge	16%	6.7%
Cash	0%	2.2%
Total	100%	6.7%

As of June 30, 2017, estimates of the median geometric rates of return for each major asset class at the time the asset allocation targets were selected are shown on the preceding page.

Investment Risk

SamCERA manages investment risks under GASB Statements No. 40 and No. 53 by contractually requiring each investment manager to follow specific investment guidelines that are specifically tailored to the investment manager. The investment guidelines in most cases stipulate the investment style, performance objective, performance benchmarks, and portfolio characteristics.

Each investment manager is required to follow the “manager standard of care” to act prudently and solely in the best interest of SamCERA. The guidelines require the investment return performance of each manager be compared with the performance of a relative passive market index over specific periods. SamCERA’s

investment consultant and staff constantly monitor the performance of all investment managers for compliance with respective guidelines.

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

SamCERA has investments in nine external investment pools containing debt securities. Interest rate risk for the fixed income portfolios are displayed in the table below. SamCERA does not have a formal policy that limits investment duration as a means of managing its exposure to fair value losses arising from increasing interest rates.

COMMINGLED FIXED INCOME PORTFOLIO

June 30, 2017

Investment Portfolio	Fair Value	Weighted Average Coupon	Weighted Average Maturity (Years)	Effective Duration (Years)
Opportunistic Credit Funds ⁽¹⁾	\$ 273,467,538	6.71%	6.97	1.14
BlackRock Intermediate Government Bond	121,382,020	2.30%	4.11	3.83
Fidelity Institutional Asset Management	229,685,997	3.10%	7.95	5.64
Western Asset Management	114,008,665	2.70%	12.40	4.88
Total	\$ 738,544,220			

⁽¹⁾ Angelo Gordon Opportunistic Whole Loan Fund, Angelo Gordon Securitized Asset Recovery Fund, Beach Point Select, Brigade Capital Management, Franklin Templeton, and Tennenbaum Capital Partners

Credit Risk. Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. SamCERA's Investment Policy seeks to maintain a diversified portfolio of fixed income instruments to obtain the highest total return for the fund at an acceptable level of risk within the asset class. The quality of SamCERA's investments in bonds as of June 30, 2017, is summarized in the table on the right.

Custodial Credit Risk – Investments. The custodial credit risk is the risk that, in the event of the failure of a counterparty to a transaction, SamCERA will not be able to recover the value of investment or collateral securities that are in the possession of an outside party. Under the investment guidelines for each investment

manager, managed investments must be held in the name of SamCERA. The master custodian may rely on sub-custodians. As of June 30, 2017, SamCERA had no investments that were exposed to custodial credit risk.

QUALITY BREAKDOWN FOR SAMCERA'S INVESTMENT IN BONDS

June 30, 2017

Credit Risk	Active Management	Commingled Management
AAA	100.00%	38.73%
AA	-	3.32%
A	-	10.19%
BBB	-	1.08%
Less than BBB	-	36.07%
Not Rated	-	5.76%
Cash	-	4.85%
Total	100.00%	100.00%

FOREIGN CURRENCY RISK

June 30, 2017

Trade Country Name	Common Stock	Foreign Currency	Total
Australia	\$ 15,673,527	\$ -	\$ 15,673,527
Brazil	2,496,938	-	2,496,938
Canada	2,219,888	295,004	2,514,892
Switzerland	32,891,334	1,051,916	33,943,250
Denmark	13,812,678	-	13,812,678
Europe	85,116,925	454,534	85,571,459
United Kingdom	76,932,592	132,349	77,064,941
Hong Kong	8,411,603	-	8,411,603
India	2,191,481	15,200	2,206,681
Japan	76,507,643	(13)	76,507,630
South Korea	5,181,222	-	5,181,222
Mexico	1,497,614	-	1,497,614
Malaysia	1,545,544	-	1,545,544
Philippines	910,335	-	910,335
Sweden	22,058,263	-	22,058,263
Singapore	16,764,358	14,643	16,779,001
South Africa	8,774,119	-	8,774,119
Total	\$ 372,986,064	\$ 1,963,633	\$ 374,949,697

Foreign Currency Risk. Foreign currency risk is the risk that changes in the exchange rates will adversely affect the fair value of an investment or deposit. In its Investment Policy, SamCERA allows forward currency contracts and currency futures as defensive currency hedging to mitigate foreign currency risk on the portfolio. International equity and global bond managers are permitted to invest in authorized countries.

Foreign Currency Risk – Foreign Exchange Contracts. Foreign currency contracts are subject to foreign currency risk as the value of deposits or investments denominated in foreign currency may be adversely affected by changes in foreign exchange rates.

Foreign currency contracts include forward contracts and spot contracts. *Currency forward contracts* are derivatives and generally serve to hedge or offset the impact of foreign currency exchange rate fluctuations. On the other hand, *Spot contracts* are agreements to buy or sell a certain amount of foreign currency at the current market rate for settlement in two business days. Spot contracts are generally used when SamCERA is required to make or receive payments in a foreign currency. SamCERA does not have a formal policy on foreign currency risk.

The table on page 54 indicates the magnitude of risk for each foreign currency denominated in U.S. dollars.

Concentration of Credit Risk. This risk is the risk of loss attributed to the magnitude of SamCERA’s investment in a single issuer of securities. Investments issued or explicitly guaranteed by the U.S. Government and pooled investments are excluded from the concentration of credit risk analysis. As of June 30, 2017, SamCERA does not have investments in a single issuer with five percent or more of SamCERA’s fiduciary net position.

Derivatives

Derivatives are financial instruments that are connected to a specific financial instrument, indicator or commodity, and through which specific financial risks can be traded in financial markets in their own right. The value of a derivative derives from the price of an underlying item, such as an asset or index. Derivatives are used for a number of purposes (such as risk management, hedging, and arbitrage between markets), and are usually settled by net payments of cash.

The derivatives that SamCERA held at fiscal year-end are shown below. Compared to SamCERA’s total investments at fair value,

INVESTMENT DERIVATIVES

June 30, 2017

Type of Derivatives	Notional Value	Fair Value
Interest Rate Contracts - Short	\$ (14,433,992)	\$ -
Interest Rate Contracts - Long	(129,534,344)	-
Foreign Exchange Contracts - Long	926,880	-
Foreign Exchange Contracts - Forwards	1,433	1,433
Equity Contracts - Long	32,145,283	-
Total	\$ (110,894,740)	\$ 1,433

the fair value of SamCERA's derivatives as of June 30, 2017, is not material.

SamCERA's investments contain various derivatives, primarily in swaps and foreign currency forward positions.

- The fair values of credit rate swaps, interest rate swaps, warrants, and To Be Announced (TBA) transactions are determined using the custodian pricing vehicles.
- The fair values of currency forward contracts are determined using a proprietary pricing service, which uses published foreign exchange rates as the primary source.
- The fair values of other derivatives are determined using a pricing service and validated by SamCERA's custodian.

All derivatives held are investment derivatives, and none of them are hedging derivatives. As of June 30, 2017, the derivatives held had an aggregate negative notional amount of \$111 million. The fair value of derivatives totaling \$1,433 is reported in the Statement of Fiduciary Net Position as part of the cash management overlay and inflation hedge. Changes in fair value during fiscal year 2017 are reported in the Statement of Changes in Fiduciary Net Position as a component of investment income.

Custodial Credit Risk – Derivatives. As of June 30, 2017, SamCERA's derivatives were not subject to custodial credit risk. However, they are subject to other risks.

Credit Risk – Derivatives. SamCERA is exposed to credit risk on investment derivatives that are traded over the

counter and are reported in asset positions. Derivatives exposed to credit risk include credit default and interest rate swaps, currency forward contracts, rights, warrants, and TBA transactions.

To minimize credit risk exposure, SamCERA's investment managers continuously monitor credit ratings of counterparties. Should there be a counterparty failure, SamCERA would be exposed to the loss of the fair value of derivatives that are in asset positions and any collateral provided to the counterparty, net of the effect of applicable netting arrangements. SamCERA does not have general policy with respect to netting arrangements or collateral requirements. In the event of bankruptcy or default by the counterparty, netting arrangements legally provide SamCERA with a right of offset.

Fair Value Measurement

GASB Statement No. 72, *Fair Value Measurement and Application*, establishes a fair value hierarchy based on three types of input to develop the fair value measurements for investment.

- Level 1 — reflects prices quoted in active markets.
- Level 2 — reflects prices that are based on a similar observable asset either directly or indirectly, which may include inputs in markets that are not considered to be active.
- Level 3 — reflects prices based upon unobservable sources.

The categorization of investments within the fair value hierarchy (see pages 57-58) is based upon the pricing transparency of the instrument and should not be perceived as the particular investment's risk.

FAIR VALUE MEASUREMENT

June 30, 2017

Investments by Fair Value Level	6/30/2017	Fair Value Measurements Using	
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)
DEBT SECURITIES			
U.S. Government Securities	\$ 65,178,532		\$ 65,178,532
EQUITY SECURITIES			
Foreign Stocks	372,986,064	\$ 372,986,064	
U.S. Common & Preferred Stock	49,678,887	49,678,887	
Total Equity Securities	422,664,951	422,664,951	
COMMINGLED FUNDS			
Domestic Bond Funds	235,390,686		235,390,686
Domestic Equity Funds	808,786,486		808,786,486
International Equity Funds	235,460,594		235,460,594
Liquid Pool Funds	190,503,104		190,503,104
Total Commingled Funds	1,470,140,870		1,470,140,870
Total Investments by Fair Value Level	1,957,984,353	\$ 422,664,951	\$ 1,535,319,402
Investments Measured at the Net Asset Value (NAV)			
Domestic Bond Funds	392,289,603		
Global Bond Funds	110,863,931		
Domestic Equity Funds	144,744,988		
International Equity Funds	106,136,119		
Real Estate Funds	267,102,074		
Risk Parity Funds	291,757,142		
Absolute Return/Hedge Funds	227,287,982		
Private Equity Funds	253,442,897		
Private Real Asset Funds	50,553,154		
Total Investments Measured at NAV	1,844,177,890		
Total Investments	\$ 3,802,162,243		

Derivatives ⁽¹⁾

Currency Exchange Contracts - Forwards	\$ 1,433	\$ 1,433
--	----------	----------

(1) Derivatives are reported under "cash management outlay" and "inflation hedge" on the Statement of Fiduciary Net Position.

INVESTMENTS MEASURED AT NET ASSET VALUE (NAV)

June 30, 2017

<u>Investments Measured at NAV</u>	<u>6/30/2017</u>	<u>Unfunded Commitments</u>	<u>Redemption Frequency (if currently eligible)</u>	<u>Redemption Notice Period</u>
Domestic Bond Funds ⁽¹⁾	\$ 392,289,603	\$ -	Daily, Quarterly	15-90 days
Global Bond Funds ⁽¹⁾	110,863,931	-	Monthly	15 days
Domestic Equity Funds ⁽¹⁾	144,744,988	-	Daily	1-5 days
International Equity Funds ⁽¹⁾	106,136,119	-	Daily	1-10 days
Real Estate Funds ⁽²⁾	267,102,074	83,104,579	Quarterly, Not Eligible	45 days
Risk Parity Funds ⁽³⁾	291,757,142	-	Monthly	15 days
Hedge Funds/Absolute Return ⁽⁴⁾	227,287,982	-	Semi-Monthly, Monthly	5-75 days
Private Equity Funds ⁽⁵⁾	253,442,897	139,300,000	Not Eligible	Not applicable
Private Real Asset Funds ⁽⁵⁾	50,553,154	55,900,000	Not Eligible	Not applicable
Total Investments Measured at NAV	\$ 1,844,177,890	\$ 278,304,579		

⁽¹⁾ **Bond and Equity Funds.** This type includes six domestic bond funds, one global bond fund, one domestic equity fund, and two international equity funds that are considered to be commingled in nature. Each is valued at the net asset value (NAV) of units held at the end of the period based upon the fair value of the underlying investments.

⁽²⁾ **Real Estate Funds.** This type includes three real estate funds that invest primarily in a diversified portfolio of institutional quality multi-family, industrial, retail and office assets in the United States. The fair values of the investments in this type have been determined using the NAV (or its equivalent) of the plan's ownership interest in partners' capital. One investment has quarterly liquidity while the other is ineligible for redemption.

⁽³⁾ **Risk Parity Funds.** This type includes two risk parity funds that seek to generate returns from a risk diversified portfolio of asset exposures. The fair values of the investments in this type have been determined using the NAV (or its equivalent) of the plan's ownership interest in partners' capital. The funds can be redeemed on a monthly basis.

⁽⁴⁾ **Hedge Funds/Absolute Return.** This strategy consists of two multi-strategy hedge funds/absolute return. One fund delivers efficient exposure to a well-diversified portfolio of hedge fund strategies, and the other builds a broad range of return-seeking positions (i.e., multi-strategy) with high underlying liquidity that incorporates multiple risk views.

⁽⁵⁾ **Private Equity and Private Real Asset Funds.** SamCERA's private equity portfolio consists of twenty-one funds, investing primarily in Buyout Funds, Venture Capital and Debt/Special Situations. The Private Real Asset portfolio comprises seven funds, investing in infrastructure and natural resources. The fair values of these funds have been determined using net asset values one quarter in arrears plus current quarter cash flows. These funds are not eligible for redemption. Distributions are received as underlying investments with the funds are liquidated, which on average can occur over the span of 5 to 10 years.

As of June 30, 2017, SamCERA did not hold any investments classified in Level 3. Debt and equity securities classified in Level 1 are valued using prices quoted in active markets for those securities. Debt and equity securities classified in Level 2 of the fair value hierarchy are valued using the following approaches:

- *U.S. Treasuries, U.S. Agencies, and Commercial Paper*: quoted prices for identical securities in markets that are not active;
- *Corporate and Municipal Bonds*: quoted prices for similar securities in active markets;
- *Repurchase Agreements, Negotiable Certificates of Deposit, and Collateralized Debt Obligations*: matrix pricing based on the securities' relationship to benchmark quoted prices; and
- *Money Market, Bond, and Equity Mutual Funds*: published fair value per share (unit) for each fund.
- *Commingled and high-yield equity investments*: valued using matrix pricing techniques or quoted prices for similar securities in active markets

Note 6: Pension Disclosures

Employer Net Pension Liability

GASB Statement No. 67, *Financial Reporting for Pension Plans – an Amendment of GASB Statement No. 25*, requires public pension plans to disclose the employer net pension liability information. The net pension liability of all participating employers was determined based upon plan assets as of the measurement date at June 30, 2017. The

schedule of employer net pension liability at June 30, 2017, is presented on page 60.

For financial reporting purposes, the net pension liability is measured as the total pension liability less the amount of the pension fiduciary net position. The total pension liability represents the present value of projected benefit payments (using the discount rate of 6.92% discussed below) to be provided through the pension plan to active, inactive, and retired members (or their beneficiaries) that is attributed to those members' past periods of services.

Actuarial Assumptions

Each year SamCERA engages an independent actuarial firm to perform an annual actuarial valuation in accordance with requirements under GASB Statement No. 67. In the valuation, the actuary employs generally accepted actuarial methods and assumptions to determine the total pension liability, the fiduciary net position, and the employers' net pension liability.

Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events far into the future. The actuarially determined amounts are subject to continual revision as results are compared to past expectations and new estimates are made about the future. Calculations, which reflect a long-term perspective, are based on the benefits provided under the terms of the substantive plan in effect at the time of each valuation and on the pattern of sharing of costs between the employer and plan members to that point.

SCHEDULE OF EMPLOYER NET PENSION LIABILITY

June 30, 2017

This schedule displays the total pension liability, the plan fiduciary net position, and the net pension liability of all participating employers, which were determined in conformity with the requirements prescribed by GASB Statement No. 67.

Net Pension Liability	June 30, 2017
Total pension liability	\$ 4,616,094,476
Less: Plan fiduciary net position	<u>(4,038,701,990)</u>
Employers' net pension liability	<u>\$ 577,392,486</u>
Plan fiduciary net position as a % of total pension liability	87.49%
Covered payroll	\$ 510,132,014
Net employers' pension liability as a % of covered payroll	113.18%

Note: The total pension liability was determined by an actuarial valuation as of the valuation date, calculated based on the discount rate and actuarial assumptions and methods shown below.

Discount rate 6.92%

Long-term expected rate of return, net of expenses 6.75%

The plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active employees, inactive members, retirees, and beneficiaries. Therefore, the discount rate for calculating the total pension liability is equal to the long-term expected rate of return, gross of administrative expenses.

Valuation date June 30, 2017

Measurement date June 30, 2017

Key assumptions

Investment rate of return ⁽¹⁾	6.92%
General wage increases	3.00%
Inflation	2.50%
Mortality	Various rates based on mortality tables described in the June 30, 2017, actuarial valuation.

Actuarial experience study July 1, 2014 to April 30, 2017

Actuarial cost method Individual Entry Age Normal

Asset Valuation Method Fair market value

Smoothing period 5 years

Recognition method Non-asymptotic

Corridor 80% to 120% of fair value

Amortization of Unfunded Actuarial Accrued Liability (UAAL) ⁽²⁾ UAAL as of June 30, 2008, is amortized over a closed 15-year period ending June 30, 2013. Subsequent changes in the UAAL are amortized over separate closed 15-year layers that are determined annually ("layer" amortization).

⁽¹⁾ Differs from actuarial valuation for funding purposes due to addition of administrative load of 0.17%.

⁽²⁾ Contribution "credits" are applied to the County of San Mateo (the County) and San Mateo County Mosquito & Vector Control District (the District) contribution rates. These rates reflect supplemental contributions by the County and the District, which are tracked separately in the County and District Supplemental Contribution Accounts. Contributions in a given year are amortized as a level percentage of pay over a 15-year closed period.

Discount Rate

The discount rate used to measure the total pension liability was 6.92% as of June 30, 2017. The projection of cash flows used to determine the discount rate assumed both employer and member contributions will be made at rates equal to the actuarially determined contribution rates.

SamCERA’s fiduciary net position is projected to be available to make all projected future benefit payments of current active employees, inactive members, retirees, and beneficiaries. Therefore, the discount rate for calculating the total pension liability is equal to the long-term expected rate of return, gross of administrative expenses.

Sensitivity Analysis

The employers’ net pension liability changes with adjustments to the discount rate. The table below presents the net pension liability of participating employers at year-end, using the current discount rate of 6.92%, and what the net pension liability would be using a discount rate that is one percent lower or one percent higher than the current discount rate.

Note 7: Plan Reserves

SamCERA uses three different types of accounts to record the plan reserves: the valuation reserves, the non-valuation reserves, and the market stabilization account. The plan reserves as of June 30, 2017, are presented in the table below.

SCHEDULE OF SENSITIVITY ANALYSIS

June 30, 2017 (Dollars in Millions)

	1% Decrease (5.92%)	Current Discount Rate (6.92%)	1% Increase (7.92%)
Total pension liability	\$5,283	\$4,616	\$4,073
Less: Fiduciary net position	(4,039)	(4,039)	(4,039)
Net pension liability	\$1,244	\$ 577	\$ 34

RESERVES REQUIRED FOR REPORTING PURPOSES BY THE CERL

June 30, 2017

Valuation Reserves

Member Deposit Reserve	\$ 735,102,254
Employer Advance Reserve	855,356,336
Retired Member Reserve	1,019,849,399
Cost of Living Adjustment Reserve	1,295,487,509
County Supplemental Contribution Account Reserve	118,435,431
District Supplemental Contribution Account Reserve	1,956,796
Subtotal - Valuation Reserves	<u>4,026,187,725</u>

Non-Valuation Reserves

Contingency Reserve	40,168,859
Unallocated Earnings/Losses Reserve	(49,355,495)
Subtotal - Non-Valuation Reserves	<u>(9,186,636)</u>

Market Stabilization Account

21,700,901

Total Reserves

\$ 4,038,701,990

Plan reserves (components of net position) are established to account for resources accumulated from employer contributions, member contributions, and investment income after satisfying all expenses. The plan reserves do not represent the present value of assets needed, as determined by the actuarial valuation, to satisfy retirement as well as other benefits when they become due.

Valuation Reserves

The valuation reserves generally receive interest at the assumed actuarial interest rate semi-annually. The valuation reserves are made up of the following:

Member Deposit Reserve represents funding provided by active and inactive (deferred) members. Additions include member contributions and interest credited. Deductions include refunds to members and transfers to the Retired Member Reserve at the time a member retires.

Employer Advance Reserve represents funding provided by employers for future retirement payments to active and inactive (deferred) members.

Additions include employer contributions and interest credited. Deductions include lump-sum death benefit payments to members' survivors, supplementary disability payments, and transfers to the Retired Member Reserve at the time a member retires. If a member elects to receive a refund of member contributions upon termination, the balance in this reserve account will not be affected since the employers' contribution rates are

based on an actuarial assumption that takes into account the expected termination rate for members.

Retired Member Reserve represents funding set aside for retirement benefits. Additions include transfers from the Member Deposit Reserve and the Employer Advance Reserve (both made at the time a member retires) as well as interest credited. Deductions include benefit payments to retired members, beneficiaries, and survivors.

Cost of Living Adjustment Reserve represents employer contributions accumulated for future cost of living adjustments under provisions of the CERL. Additions include contributions from employers and interest credited. Deductions include payments to retired members, beneficiaries, and survivors.

County Supplemental Contribution Account captures all the supplemental contributions made by the County in excess of the statutory contributions plus interest credited since fiscal year 2014.

District Supplemental Contribution Account captures all the supplemental contributions made by the District in excess of the statutory contributions plus interest credited since fiscal year 2016.

Non-Valuation Reserves

The Board established two non-valuation reserve accounts: Contingency Reserve and Unallocated Earnings/Losses Reserve. The balances in these non-valuation reserve accounts are not used to determine employers' statutory contribution rates.

Contingency Reserve is established to meet the reserve requirement under Section 31592 of the CERL that at least one percent of the fund's actuarial value of assets be kept as reserves against future earning deficiencies, investment losses, and other contingencies. Additions to the reserve include investment income and other revenues. Deductions from the reserve include investment and administrative expenses as well as interest allocated to other reserves.

The Board adopted an *Interest Crediting Policy* stipulating how earnings should be allocated among different valuation reserves. When there are insufficient allocable earnings to cover interest credited to the reserves specified in the interest crediting policy, the funding in the Contingency Reserve may be used to cover the shortage. However, in no event may the Contingency Reserve be allowed to drop below one percent of the actuarial value of assets.

Under the CERL, excess earnings exceeding one percent of SamCERA's total assets may be transferred from the Contingency Reserve into the Employers' Advance Reserve for payment of benefits. Whenever possible, SamCERA strives to keep the Contingency Reserve at 3% of the actuarial value of assets as described in its Interest Crediting Policy.

SamCERA semi-annually updates its reserve balances as of December 31 and as of June 30 to incorporate interest credit as specified in Article 5 of the CERL (Semi-Annual Interest Crediting). The amount of interest (or net earnings) to be distributed for each semi-annual period is based on

the actuarial smoothing process described later. To the extent that net earnings are available, interest is credited to all components of valuation reserve (except the Member Deposit Reserve, the CSCA, and the DSCA) at a rate of one-half of the assumed investment earnings rate. Earnings from the five-year smoothing process were mostly sufficient to provide interest credits to the valuation reserves .

The Member Deposit Reserve accounts are credited semi-annually in amounts that are equal to the lesser of one half of the assumed investment earnings rate, or the actuarial earnings rate for the prior six-month period (but the rate credited shall not be less than zero). The actuarial assumed interest rate in effect for the members' interest credit during the year was 3.625% semi-annually. The actuarial smoothed rates of return were 3.684% and 3.952% at December 31, 2016, and June 30, 2017, respectively.

The CSCA and the DSCA are credited semi-annually in accordance with provisions on the "Memorandum of Understanding" between SamCERA and the employers.

Unallocated Earnings/Losses Reserve is established to account for periods when actual earnings do not equal the actuarial assumed interest rate. The Board adopted a *Five-year Actuarial Smoothing Policy* to value actuarial assets and calculate the UAAL.

The smoothing process operates semi-annually (with calculation periods ended December 31 and June 30) to spread the difference between actual and expected market return over five years (or ten

successive semi-annual periods). This smoothing process affects the net investment income reported on the Statement of Changes in Fiduciary Net Position.

For the fiscal year ended June 30, 2017, smoothed earnings of \$23 million were distributed to the Unallocated Earnings/Losses Reserve, bringing the year-end balance in this account to a negative \$49 million from a negative \$72 million last year.

Market Stabilization Account

The Market Stabilization Account is designed to minimize the impact of short-term volatility in the fair value of the retirement fund on employer and member contribution rates by smoothing market returns over a five-year period. The Board adopted a Market Stabilization Account policy to limit the actuarial value of assets not to exceed $\pm 20\%$ of the fair value.

The balance in this account, arising from a *Five-year Actuarial Smoothing Policy*, represents the difference between (1) the aggregate amount initially deferred (or smoothed) from the ten most recent semi-annual periods and (2) the aggregate amount subsequently recognized for semi-annual interest crediting from the same ten periods.

Deferred investment earnings/losses are amortized over five years in accordance with a schedule established by the actuary. At June 30, 2017, the balance in the Market Stabilization Account amounted to \$22 million.

Note 8: Administrative Expenses

The Board annually adopts an operating budget for the administration of SamCERA. Administrative expenses are charged against earnings of the retirement fund and cannot exceed twenty-one hundredth of one percent (0.21%) of the accrued actuarial liabilities as set forth under Government Code Section 31580.2 of the CERL.

SamCERA has a policy in place to monitor compliance with the Government Code. SamCERA's administrative expenses for the reporting period amounted to 0.15% of accrued actuarial liability at June 30, 2015, (the latest information available when preparing the administrative budget for fiscal year 2017). Information technology expense is excluded from this limit.

The table on the next page presents the budget-to-actual analysis of administrative expenses for the fiscal year ended June 30, 2017.

The overall salaries and expenses for the fiscal year 2017 were 10% below the budget, primarily due to a vacant position not being filled.

The overall expenses for services and supplies were 18% below the budget. Major reasons include the following:

- County services expenses consisted of fixed fees for basic services and variable fees for non-basic services. The need for non-basic services was less than projected.

- The budget set aside monies for hiring a tax attorney to assist with the tax determination process. In August 2016, Internal Revenue Service issued a favorable tax determination letter to SamCERA. As a result, the tax determination process was complete without incurring additional charges.
- Education, conference, transportation, as well as lodging expenses were significantly lower than expected. During the first half of the fiscal year, staff concentrated on implementing the new pension system. After the system went live in January 2017, staff shifted their focus to assessing the final

deliverables produced. Most plans for training, conferences, and traveling were either canceled or deferred.

Note 9: Information Technology Expenses

Pursuant to Government Code Section 31580.2 of the CERL, expenses for computer software, computer hardware, and computer technology consulting services in support of these computer products are not subject to the mandated limit of 0.21% discussed earlier. As a result, SamCERA prepares a separate information technology budget since this Government Code was implemented in fiscal year 2012.

ADMINISTRATIVE EXPENSES FOR THE FISCAL YEAR ENDED JUNE 30, 2017, COMPARED TO ACTUARIAL ACCRUED LIABILITY AS OF JUNE 30, 2015

(Dollars in Thousands)

Actuarial Accrued Liability (AAL) as of 6/30/15	\$	4,045,786	(a)
Maximum Allowed for Administrative Expenses (AAL*0.21%)	\$	8,496	(b)
Operating Budget for Administrative Expenses	\$	6,822	(c)
Actual Administrative Expenses	\$	5,983	(d)
Excess of Allowed over Actual Administrative Expenses	\$	2,513	=(b) - (d)
Excess of Budgeted over Actual Administrative Expenses	\$	839	=(c) - (d)
Actual Administrative Expenses as a Percentage of Actuarial Accrued Liability as of 6/30/15			0.15% = (d)/(a)

SAMCERA’S ADMINISTRATIVE EXPENSES, BUDGET VS. ACTUAL

For the Fiscal Year Ended June 30, 2017

	Budget	Actual	Under Budget	% of Budget Remaining
Salaries and benefits	\$ 5,039,523	\$ 4,516,629	\$ 522,894	10%
Services and supplies	1,782,200	1,466,727	315,473	18%
Total expenses	\$ 6,821,723	\$ 5,983,356	\$ 838,367	12%

The table below presents the budget-to-actual analysis of technology expenses for the fiscal year ended June 30, 2017. The overall Information Technology (IT) expenses were significantly below the budget, due primarily to the following:

- Staff gave priority to new pension system implementation and post-implementation review over many IT projects. Plans for acquiring new equipment and software, managing documents electronically, improving the capacities of the existing infrastructure, and capitalizing on new technologies via research and development were deferred.
- The IT budget provided funding for enhancements to the old pension system (Pension Gold). Management subsequently decided to suspend further improvement as Pension Gold was slated to discontinue in January 2017.

Note 10: Risk Management

SamCERA is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; injuries to employees; and natural disasters. Such risks are managed by SamCERA through its participation with the County's self-insurance program and commercial insurance policies.

SamCERA is covered by the County's self-insurance program for general liability and workers' compensation with coverage up to \$1 million per occurrence. Additional coverage for various types of risks are provided through the County's commercial insurance carriers in accordance with the terms set forth in individual insurance policies. Pursuant to a Memorandum of Understanding between SamCERA and the County, SamCERA pays a pro-rata share of total insurance cost incurred by the County based on the employee count. Settled claims have not exceeded the insurance coverage in the past three fiscal years.

SAMCERA'S INFORMATION TECHNOLOGY EXPENSES, BUDGET VS. ACTUAL

For the Fiscal Year Ended June 30, 2017

	Budget	Actual	Under Budget	% of Budget Remaining
Property and equipment	\$ 200,000	\$ 20,415	\$ 179,585	90%
Information technology infrastructure	1,603,340	563,386	1,039,954	65%
Research and development	104,000	-	104,000	100%
Capital asset	4,000,000	-	4,000,000	(1)
Total expenses	\$ 5,907,340	\$ 583,801	\$ 5,323,539	(1)

(1) In fiscal year 2017, SamCERA incurred a total capital expense of \$2,879,428. This amount was capitalized and reported as capital assets on the Statement of Fiduciary Net Position for financial reporting purposes. SamCERA also reported a total depreciation expense of \$412,178 on its basic financial statements. Since depreciation is a non-cash expense and not included in the adopted budget for fiscal year 2017, it was excluded from the above schedule.

The Retirement Board members and senior staff purchase separate Fiduciary Liability coverage for actual or alleged breach of fiduciary duties through a policy provided by AIG Nation Union Fire Insurance Company of Pittsburgh, Pennsylvania. The coverage is limited to \$10 million in the aggregate for all loss combined (including defense costs).

Note 11: Related Party Transactions

SamCERA has business transactions with various County offices: County Counsel, Treasurer, Controller, Procurement, Human Resources, Information Services, Health System, Sheriff, and Elections. Payments for the services provided were on a cost-reimbursement basis.

Note 12: Commitments

At June 30, 2017, SamCERA had a total “uncalled capital” of \$278.3 million, with \$139.3 million in private equity investments, \$55.9 million in private real asset investments, and \$83.1 million in real estate investments. SamCERA is still in the process of building out its private equity and private real asset portfolios and intends to make additional capital commitments over the next three to five years.

Note 13: Contingent Liability

SamCERA is subject to legal proceedings and claims arising from the normal course of its business. Currently, no such actions are adjudicated or reported.

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS OF PARTICIPATING EMPLOYERS

For the Fiscal Years Ended June 30

This schedule displays the components of the total pension liability, the fiduciary net position, and the net pension liability of all participating employers, which were determined in conformity with the requirements prescribed by GASB Statement No. 67.

	2017	2016	2015	2014
Total Pension Liability				
Service cost	\$ 96,411,681	\$ 96,308,679	\$ 90,955,831	\$ 87,512,515
Interest on total pension liability	306,404,154	290,843,506	272,953,777	265,430,896
Effect of plan changes	-	-	-	-
Effect of assumption changes or inputs	147,541,839	85,538,873	-	37,853,852
Effect of economic/demographic gains or (losses)	4,834,605	17,875,272	50,655,233	(31,415,241)
Benefit payments and refund of contributions	(193,240,280)	(182,863,698)	(171,466,218)	(162,556,107)
Net change in total pension liability	361,951,999	307,702,632	243,098,623	196,825,915
Total pension liability, beginning	4,254,142,477	3,946,439,845	3,703,341,222	3,506,515,307
Total pension liability, ending (a)	\$ 4,616,094,476	\$ 4,254,142,477	\$ 3,946,439,845	\$ 3,703,341,222
Fiduciary Net Position				
Employer contributions	\$ 198,727,135	\$ 191,094,488	\$ 180,704,280	\$ 202,877,362
Member contributions	62,160,101	56,068,706	48,011,698	46,593,698
Investment income net of investment expenses	436,675,706	29,299,764	111,630,036	482,663,965
Benefit payments and refund of contributions	(193,240,280)	(182,863,698)	(171,466,218)	(162,556,107)
Administrative and other non-investment expenses	(7,009,169)	(6,687,091)	(6,097,422)	(5,710,296)
Net change in plan fiduciary net position	497,313,493	86,912,169	162,782,374	563,868,622
Fiduciary net position, beginning	3,541,388,497	3,454,476,328	3,291,693,954	2,727,825,332
Fiduciary net position, ending (b)	\$ 4,038,701,990	\$ 3,541,388,497	\$ 3,454,476,328	\$ 3,291,693,954
Net pension liability, ending = (a) - (b)	\$ 577,392,486	\$ 712,753,980	\$ 491,963,517	\$ 411,647,268
Fiduciary net position as a % of total pension liability	87.49%	83.25%	87.53%	88.88%
Covered payroll	\$ 510,132,014	\$ 472,384,955	\$ 439,017,764	\$ 416,273,731
Net pension liability as a % of covered payroll	113.18%	150.88%	112.06%	98.89%

Note 1: This schedule will ultimately show information for ten years. Additional years will be displayed as they become available.

Note 2: In accordance with Statement No. 82 of the Governmental Accounting Standards Board, covered payroll is the payroll on which contributions are based.

SCHEDULE OF EMPLOYER CONTRIBUTIONS

Last Ten Fiscal Years

This schedule provides information about the statutory contributions of all participating employers and the percentage of the statutory contributions recognized by the plan.

Fiscal Year Ended June 30	Actuarially Determined Contribution	Actual Employer Contribution	Contribution Deficiency (Excess)	Covered Payroll	As a % of Covered Payroll	
					Actuarially Determined Contribution	Actual Employer Contribution
2008	\$ 105,339,570	\$ 105,339,570	\$ -	\$ 411,293,295	25.61%	25.61%
2009	106,123,055	106,123,055	-	433,668,170	24.47%	24.47%
2010	106,265,329	106,265,329	-	434,295,179	24.47%	24.47%
2011	150,474,872	150,474,872	-	427,041,368	35.24%	35.24%
2012	139,406,807	150,949,791	(11,542,984)	418,915,989	33.28%	36.03%
2013	131,293,846	144,308,171	(13,014,325)	404,360,891	32.47%	35.69%
2014	152,877,362	202,877,362	(50,000,000)	416,273,731	36.73%	48.74%
2015	169,814,170	180,704,280	(10,890,110)	439,017,764	38.68%	41.16%
2016	170,046,059	191,094,488	(21,048,429)	472,384,955	36.00%	40.45%
2017	164,877,135	198,727,135	(33,850,000)	510,132,014	32.32%	38.96%

¹ Employers contributed at a higher rate than the Actuarially Determined Contribution rate in order to maintain more stable contributions.

² In 2014, the San Mateo County (the County) Board of Supervisors implemented a policy to eliminate the County's unfunded actuarial accrued liability (UAAL) by 2023. Contributions in excess of the Actuarially Determined Contribution are related to that policy unless noted otherwise.

³ In fiscal years 2015-16 and 2016-17, the San Mateo County Mosquito & Vector Control District contributed \$1.5 million and \$0.25 million more than actuarially determined contributions, respectively.

SCHEDULE OF INVESTMENT RETURNS

For the Fiscal Years Ended June 30

The money-weighted rate of return measures investment performance, net of investment manager expenses, adjusted for the changing amounts actually invested. This schedule will ultimately show information for ten years. Additional years will be displayed as they become available prospectively.

	2017	2016	2015	2014
Money-weighted rate of return, net of investment manager expenses ¹	12.48% ³	0.49% ²	3.37%	17.22%

¹ The calculation was provided by SamCERA's investment consultant, Verus Investments. Data prior to fiscal year 2013-14 is not available.

² Investment return (which was revised to reflect the most updated information) was much lower than the prior year since the market conditions were shadowed by numerous global concerns such as the economic slowdown in China.

³ Investment return was much higher than the prior year due to strong performance under favorable economic conditions.

NOTES TO THE REQUIRED SUPPLEMENTARY INFORMATION

Actuarial Valuation Methods and Assumptions

The employer statutory contribution rates for the fiscal year ended June 30, 2017, are those calculated in the actuarial valuation as of June 30, 2015. Details of actuarial methods and assumptions selected for the June 30, 2015 actuarial valuation, are summarized in the table below.

Changes in Assumptions

In July 2017, the Retirement Board adopted the assumptions developed from the latest triennial Investigation of Experience Study for use in the 2017

valuation. These changes include lowering the assumed investment return, modifying the mortality assumption, and adding a projection scale to reflect gradual year-to-year increase in mortality that is expected to occur in the future.

The investment return rate was changed from 7.00% to 6.75%, the CPI from 2.75% to 2.50%, and the general wage increase from 3.25% to 3.00%. The new mortality assumption resulted in an increase in assumed life expectancy compared to the prior assumption. The effect of these assumption changes caused a \$147.5 million increase in total pension liability.

ACTUARIAL VALUATION AS OF JUNE 30, 2015 (FOR FUNDING PURPOSES)

VALUATION DATE	June 30, 2015
ACTUARIAL COST METHOD	Entry Age Normal
AMORTIZATION METHOD	Level Percent of Payroll
AMORTIZATION PERIOD	UAAL as of June 30, 2008, is amortized over a closed 15-year period ending June 30, 2023. Subsequent changes in the UAAL are amortized over separate closed 15-year layers which are determined annually.
ASSET VALUATION METHOD	5-year smoothed recognition of asset gains and losses (determined as the difference of the actual fair value to the expected fair value), which cannot vary more than 20% from the fair value.
ACTUARIAL ASSUMPTIONS:	
INVESTMENT RATE OF RETURN	7.25%, net of pension plan investment and administrative expenses
INFLATION RATE (CPI)	3.00%
GENERAL WAGE INCREASE	3.50%
DEMOGRAPHIC ASSUMPTIONS:	
SALARY INCREASE DUE TO SERVICE	See June 30, 2015 actuarial valuation report for details.
RETIREMENT	See June 30, 2015 actuarial valuation report for details.
DISABILITY	See June 30, 2015 actuarial valuation report for details.
MORTALITY	See June 30, 2015 actuarial valuation report for details.

SUPPLEMENTARY INFORMATION

SCHEDULE OF ADMINISTRATIVE EXPENSES

For the Fiscal Year Ended June 30, 2017

The schedule below depicts the administrative expenses incurred by San Mateo County Employees’ Retirement Association (SamCERA) in the normal course of business.

Salaries & Benefits

Salaries	\$ 3,013,494
Benefits	<u>1,503,135</u>
Total Salaries & Benefits	<u>4,516,629</u>

Services & Supplies

Board Expenses	6,300
Insurance	65,275
Medical Evaluation	66,325
Member Education	58,649
Education & Conference	106,361
Transportation & Lodging	71,100
Property & Equipment	14,973
General Office Supplies	34,666
Postage, Printing & Copying	64,844
Leased Facilities	555,712
County Services	344,016
Audit Services	51,918
Other Administration	<u>26,588</u>
Total Services & Supplies	<u>1,466,727</u>

Total Administrative Expenses	\$ 5,983,356
--------------------------------------	---------------------

SCHEDULE OF INFORMATION TECHNOLOGY EXPENSES

For the Fiscal Year Ended June 30, 2017

The schedule below depicts the information technology expenses incurred by SamCERA in the normal course of business.

Property and Equipment	\$ 20,415
Information Technology Infrastructure	563,386
Depreciation Expense	412,178
Total Information Technology Expenses	\$ 995,979

SCHEDULE OF INVESTMENT EXPENSES*For the Fiscal Year Ended June 30, 2017*

The schedule below shows the investment expenses for the generation of investment income during the reporting period.

Investment Management Fees (by Asset Class)

Equity	\$ 5,114,666
Fixed Income	4,998,196
Alternatives	6,948,227
Risk Parity	1,058,181
Inflation Hedge	2,997,405
Cash	193,557
Total Investment Management Fees	21,310,232

Other Investment Expenses

Investment Consultant	450,596
Actuarial Consulting	169,000
Master Custodian	241,875
Other Professional Services	69,900
Total Other Investment Expenses	931,371

Other Investment Related Expense	8,689,470
----------------------------------	-----------

Interest Paid on Prepaid Contribution	2,756,985
---------------------------------------	-----------

Total Investment Expenses	\$ 33,688,058
----------------------------------	----------------------

SCHEDULE OF PAYMENTS TO CONSULTANTS (OTHER THAN INVESTMENT ADVISORS)*For the Fiscal Year Ended June 30, 2017*

The schedule of payments to consultants provides information on fees paid to outside professionals other than investment advisors (itemized by individual or firm). Fees paid to investment professionals can be found in the Investment Section of this report.

CUSTODIAN SERVICES

Northern Trust Corporation	\$ 241,875
----------------------------	------------

ACTUARIAL CONSULTANT EXPENSE

Milliman Inc. and Segal Consulting	169,000
------------------------------------	---------

AUDIT SERVICES ⁽¹⁾

Brown Armstrong Accountancy Corporation	51,918
---	--------

OTHER PROFESSIONAL FEES

eVestment, Faith Global, Zeno	69,900
-------------------------------	--------

Total Payments to Consultants	\$ 532,693
--------------------------------------	-------------------

(1) Audit fees were included in administrative expenses whereas remaining items were reported under investment expenses.

NOTES TO THE SUPPLEMENTARY INFORMATION

Administrative Services Budget

The passage of Assembly Bill 609 in October 2010 changed the County Employees' Retirement Law of 1937's (the CERL) system administration expense limit from 23 basis points of total assets to 21 basis points of Accrued Actuarial Liabilities.

Information Technology Budget

Pursuant to the CERL, expenses for computer software, computer hardware, and computer technology consulting services in support of these computer products shall not be considered a cost of administration of the retirement system. SamCERA's information technology expenses are separately accounted for since fiscal year 2011-12.

Professional Services Budget

SamCERA's professional services budget is funded by investment earnings or SamCERA's assets as prescribed by Government Code §31596.1 below.

Government Code §31596.1 states that "The expenses of investing its moneys shall be borne solely by the system. The following types of expenses shall not be considered a cost of administration of the retirement system, but shall be considered a reduction in earnings from those investments or a charge against the assets of the retirement system as determined by the board:

- (a) The costs, as approved by the board, of actuarial valuations and services rendered pursuant to §31453.
- (b) The compensation of any bank or trust company performing custodial services.
- (c) When an investment is made in deeds of trust and mortgages, the fees stipulated in any agreement entered into with a bank or mortgage service company to service such deeds of trust and mortgages.
- (d) Any fees stipulated in an agreement entered into with investment counsel for consulting or management services in connection with the administration of the board's investment program, including the system's participation in any form of investment pools managed by a third party or parties.
- (e) The compensation to an attorney for services rendered pursuant to §31607 or legal representation rendered pursuant to §31529.1."

OTHER INFORMATION

SCHEDULE OF EMPLOYER PENSION AMOUNTS ALLOCATED BY COST SHARING PLAN (GASB STATEMENT NO. 68)

Employer	Deferred Outflow of Resources				Deferred Inflow of Resources				Pension Expense Excluding That Attributable to Employer-Paid Member Contributions			
	Differences Between Expected and Actual Economic Experience	Changes of Assumptions	Proportionate Share of Contributions	Total Outflows of Resources	Differences Between Expected and Actual Economic Experience	Investments on Pension Plan Share of Contributions	Net Differences Between Projected and Actual Investment Earnings	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Proportionate Share of Total Deferred Resources	Proportionate Share of Pension Expense	Amortization of Deferred amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Pension Expense Excluding That Attributable to Employer-Paid Member Contributions
County of San Mateo	\$ 33,551,366	\$ 170,310,476	\$ 2,365,074	\$ 206,226,916	\$ 6,048,063	\$ 5,332,014	\$ 399,155	\$ 11,779,232	\$ 131,055,176	\$ 1,136,557	\$ 132,191,733	
San Mateo Superior Court	1,181,582	5,997,844	-	7,179,426	212,995	187,778	3,100,520	3,501,293	4,615,386	(1,511,126)	3,104,260	
San Mateo County Mosquito & Vector Control District	121,992	619,246	1,134,601	1,875,839	21,991	19,387	-	41,378	476,515	374,569	851,084	
Total	\$ 34,854,940	\$ 176,927,566	\$ 3,499,675	\$ 215,282,181	\$ 6,283,049	\$ 5,539,179	\$ 3,499,675	\$ 15,321,903	\$ 136,147,077	\$ -	\$ 136,147,077	

SCHEDULE OF COST SHARING EMPLOYER ALLOCATIONS (GASB STATEMENT NO. 68)

Employer	Fiscal Year Ended June 30, 2017			
	Actual Employer Contributions	Actuarially Determined Contributions	Employer Allocation Percentage	Net Pension Liability
County of San Mateo	\$ 192,310,012	\$ 158,710,012	96.26%	\$ 555,798,007
San Mateo Superior Court	5,592,003	5,592,003	3.39%	19,573,605
San Mateo County Mosquito & Vector Control District	825,120	575,120	0.35%	2,020,874
Total	\$ 198,727,135	\$ 164,877,135	100.00%	\$ 577,392,486

Note: Employer allocation percentage is based on actuarially determined contributions.

NOTES TO THE OTHER INFORMATION

Basis of Presentation and Basis of Accounting

Employers participating in SamCERA are required to report pension information in their financial statements for fiscal periods beginning on or after June 15, 2014, in accordance with Governmental Accounting Standards Board (GASB) Statement No. 68, *Accounting and Financial Reporting for Pensions — an Amendment of GASB Statement No. 27*.

SamCERA's actuary prepared the following documents: (1) the Schedule of Employer Pension Amounts Allocated by Cost Sharing Plan, (2) the Schedule of Cost Sharing Employer Allocations, (3) the GASB Statement No. 67 Actuarial Valuation as of June 30, 2017, and (4) the GASB Statement No. 68 Actuarial Valuation based on a June 30, 2017 Measurement Date for Employer Reporting as of June 30, 2018; in accordance with accounting principles generally accepted in the United States of America as applicable to governmental organizations based on information provided by SamCERA. These documents

provide the required information for financial reporting related to SamCERA that employers may use in their financial statements.

Use of Estimates in the Preparation of the Documents

The preparation of these documents in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect certain amounts and disclosures. However, actual results could differ from those estimates.

Amortization of Deferred Outflows and Deferred Inflows of Resources

The difference between projected and actual investment earnings on pension plan investments is amortized over five years on a straight-line basis. One-fifth was recognized in pension expense during the measurement period, and the remaining difference between projected and actual investment earnings on pension plan investments at June 30, 2017, is to be amortized over the remaining periods.

The changes in assumptions and differences between expected and actual experience are recognized over the average of the expected remaining service lives of all employees that are provided with pensions through SamCERA (active and inactive employees) determined as of June 30, 2016 (the beginning of the measurement period ended June 30, 2017) and is five years. Prior period changes of assumptions and differences between expected and actual experience are continued to be recognized based on the expected remaining service lives of all employees calculated as of those prior measurement dates.

The net effect of the change in the employer's proportionate share of the collective net pension liability and collective deferred outflows of resources and deferred inflows of resources is recognized over the average expected remaining service lives of all employees that are provided with pensions through the pension plan determined as of the beginning of the measurement period.

The difference between the actual employer contributions and the proportionate share of the employer contributions during the measurement period ended on June 30, 2017, is recognized over the average expected remaining service lives of all employees that are provided with pensions through the pension plan determined as of the beginning of the measurement period.

The Schedule of Pension Amounts by Employer does not reflect contributions made to SamCERA subsequent to the measurement date as defined in GASB

Statement No. 68 Paragraphs 54, 55, and 57. Appropriate treatment of such amounts is the responsibility of the employers.



INVESTMENT SECTION



CHIEF INVESTMENT OFFICER'S REPORT



100 Marine Parkway, Suite 125
 Redwood City, CA 94065
 Phone: 650-599-1234
 Toll Free: 1-800-339-0761
 Fax: 650-591-1488
 Web: www.samcera.org
 Email: samcera@samcera.org



Michael Coultrip
 SamCERA
 Chief Investment Officer

Board of Retirement
 San Mateo County Employees' Retirement Association

Dear Trustees:

On behalf of SamCERA's investment team, I am pleased to report on the pension fund's investments and portfolio performance for the period ended June 30, 2017. This data was compiled by SamCERA's investment staff, its investment consultant Verus Advisory, and its custodian bank Northern Trust. All return figures are presented net of investment manager fees and time-weighted, and are calculated by SamCERA's investment consultant, Verus.

Portfolio Performance

SamCERA's portfolio market value increased to \$4.0 billion as of June 30, 2017, as the net combination of portfolio appreciation (primarily) and contributions (secondarily), less total deductions (i.e., benefits paid, administrative expense, etc.), added approximately \$497.3 million to the fund.

SamCERA's portfolio returned 12.6% net of investment manager fees for the fiscal year ended June 30, 2017, matching SamCERA's policy benchmark return. This fiscal year performance resulted in median performance relative to SamCERA's peers, as defined by large (greater than \$1 billion in assets) public plans.

All five of SamCERA's asset class composites provided positive returns on the year. Public equity was the highest performing composite and returned 18.6%. Alternatives, driven mostly by strong private equity returns, was up 17.1%. Fixed income was next at 7.2% on the year, while the Inflation Hedge category returned 5.9%. Risk parity (up 4.1%) was the lowest returning composite on the year.

Market Review

Global equities and other risk assets (i.e., investment grade credit, high yield fixed income, emerging market equity) provided strong returns during the fiscal year, as easy money policies from the developed world central banks, combined with steady (if unspectacular) global economic growth resulted in higher asset prices for risk assets. This strong performance came in spite of a number of events through the year, including elevated geopolitical risks, the fall-out from the Brexit vote in the U.K., and the impact of the U.S. election.

The broad U.S. equity market, as measured by the Russell 3000 Index, a broad basket of U.S. stocks, returned 18.5% during the year. Large-capitalization stocks in the U.S. (as measured by the Russell 1000 Index) were higher by 18.0%, while smaller-capitalization stocks (as measured by the Russell 2000 Index) performed even better, returning 24.6% for the year. In a reversal from last fiscal year, more cyclical sectors, such as financials, technology, industrials, and materials, outperformed defensive and high dividend sectors like telecommunications, consumer staples, and utilities. Financials and technology

were up over 30%, while the telecommunications sector was down almost 12%.

The broad international equity market also had a strong result during the fiscal year. The developed international market, as measured by the MSCI EAFE (Morgan Stanley Capital Investment Europe, Australasia, and Far East Index), was up 20.3%, while emerging market equity, as measured by the MSCI Emerging Markets Index, had an even better year, returning 24.2%.

The U.S. Federal Reserve (the Fed) raised short-term interest rates three times during the fiscal year as the U.S. economy continued its steady growth. The target Fed Funds Rate range is now at 1.00% to 1.25%, up from 0.25% to 0.50% at the beginning of the fiscal year. Performance across fixed income sectors varied, with credit-centric (i.e., tied to the general economy) fixed income providing strong positive returns, while more interest-rate sensitive fixed income providing flat to modest negative returns on the year. The broad U.S. bond market (as measured by the Bloomberg Barclays Aggregate Index) returned -0.3% on the year.

Portfolio Changes

During the 2017 fiscal year SamCERA's Board approved an updated asset allocation policy as part of its asset-liability study. The table below shows both the old and new target policy portfolio by asset class. Exposures to public equity are reduced in the new policy, with additions to inflation hedge assets (real estate, private real assets, and liquid real assets),

fixed income (opportunistic credit and core fixed income), and alternatives (absolute return). SamCERA is reducing its reliance on U.S. equities by allocating more assets to inflation hedge strategies and other diversifying assets. SamCERA will continue to thoughtfully balance the return potential of equity investments versus the potential risks they bring to the portfolio in order to produce the most efficient risk-adjusted return stream for the portfolio as possible.

Asset Allocation Policy: Asset Class View

	Old Policy	New Policy	Change
Public Equity	47%	36%	-11%
Fixed Income	19%	23%	4%
Alternatives	12%	13%	1%
Risk Parity	8%	8%	0%
Inflation Hedge	14%	20%	6%

In addition to the current practice of grouping investments into traditional asset classes as shown above, during the 2017 fiscal year SamCERA also began grouping its investments by what drives the underlying performance of each asset class composite. As part of this process, SamCERA classifies its portfolio into three main drivers of performance: 1) Growth, 2) Diversifying, and 3) Inflation Hedge.

The Growth category includes assets in which their primary driver of returns is tied to the general strength of economic output. These assets will generally do well when economic conditions are favorable, but generally struggle in times of economic weakness and recession. Examples of assets classified in Growth include U.S. Equity, International Equity, Private Equity in Alternatives, and Opportunistic Credit in Fixed Income.

Diversifying assets provide protection from equity risk and are either more defensive in helping provide stability if markets fall, or are more absolute-return oriented in that performance is not as dependent on the overall strength of equity markets. Examples of Diversifying assets are our core fixed income assets and absolute return strategies.

Lastly, Inflation Hedge assets provide additional diversification from equity risk and provide a potential hedge against unexpected inflation. Examples of assets in this category include real estate, commodities, Treasury Inflation Protected Securities (TIPS), and private real assets.

The new policy has a 9% reduction in Growth assets, with a corresponding increase to Diversifying (3%) and Inflation Hedge (6%). These changes are expected to further decrease equity risk while slightly rebalancing towards yield and absolute return.

Asset Allocation Policy: Performance Driver View

	Old Policy	New Policy	Change
Growth	63%	54%	-9%
Diversifying	15%	18%	3%
Inflation Hedge	14%	20%	6%
Risk Parity	8%	8%	0%

In other portfolio activities, SamCERA simplified its domestic equity program by reducing the number of strategies in half (from six to three). In addition, the allocation to lower-cost passive was increased to 75% of total domestic equity from 50%, and the overweight to small-capitalization equities was reduced to a

weight more aligned with the Russell 3000 Index weight (approximately 10%). During the year, two style-specific large-capitalization equity managers were closed and their assets transitioned to a lower-cost passive strategy. At the same time, SamCERA converted its passive exposure from the S&P 500 Index to the Russell 1000 Index to better align the program with the updated domestic equity policy benchmark (Russell 3000 Index). Lastly, SamCERA combined the assets from its two existing style-specific small capitalization equity managers into a new core small-capitalization strategy.

SamCERA also simplified its international equity manager structure by removing the dedicated international small-cap strategy and repositioning the proceeds so that the allocation across the three existing developed markets strategies are similar. This change reduced the number of managers from five to four in the composite.

SamCERA's Board also approved a new liquid real asset pool strategy as part of the Inflation Hedge category, which is a passive allocation to commodities, natural resource listed equities, and infrastructure listed equities.

For the year, SamCERA made commitments to three new private equity partnerships, totaling \$37 million. This brought the total commitments for the private equity program to \$350.5 million across venture capital, buyouts, and special situations.

SamCERA also made commitments worth \$10 million to one new partnership in its private real asset category, bringing the

total commitments to \$110 million. Subsequent to the end of the fiscal year, SamCERA committed \$20 million to a new partnership in its private real asset category.

Even though the current fiscal year exhibited strong returns, SamCERA continues to be mindful of higher potential future return volatility, and the increased likelihood of this resulting in lower returns in the future. We continue to actively rebalance the portfolio to its long-term policy asset allocation weights in order to keep a balanced risk posture without relying too much on any single asset, strategy, or return stream.

Respectfully Submitted,



Michael Coultrip
Chief Investment Officer
September 13, 2017

INVESTMENT CONSULTANT'S REPORT ON INVESTMENT ACTIVITIES



September 7, 2017

Board of Retirement
 San Mateo County Employees' Retirement Association
 100 Marine Parkway, Suite 125
 Redwood City, CA 94065

Dear Board Members:

A coordinated uptick in global economic and earnings growth amid low market volatility were central themes during the 2017 fiscal year. For the first time in the recovery, Gross Domestic Product (GDP) growth accelerated across regions, especially in the Eurozone and emerging markets. At the same time, corporate earnings growth experienced substantial improvements in the latter half of the fiscal year. This backdrop led to strong gains in global equities and other risk assets, led by emerging market equities in Asia. A shift in the U.S. political administration also played an important role in asset price movements. After the initial shock of President Trump's victory, U.S. equities rallied to end the calendar year, particularly in small cap stocks. Consumer and business sentiment measures improved significantly post-election. The increase in optimism was centered around promises of corporate tax reform, deregulation, and infrastructure spending. Much of this optimism faded, however, after the new administration ran into resistance on healthcare reform, which delayed progress on other important agenda items. In the fixed income market, U.S. rates rose modestly and the Treasury curve steepened. The Federal Reserve (Fed) continued on the path of rate normalization, raising the federal funds rate by 25 basis points (bps) in December, March, and June. Even with the three rate hikes, yields remain low relative to history. The Fed has indicated confidence in the economic environment, and based on its own forecasts, a continued gradual pace of monetary tightening appears likely over the short-term. However, inflation is still below the Fed's 2% target, which has been noted as a concern. Developed central banks outside of the U.S remain accommodative, although improving economic conditions in the Eurozone have led to discussions about the possibility of monetary tightening. In currencies, the U.S dollar appreciated significantly in the first half of the fiscal year, but reversed course during the second half to end little changed over the period. Improving international economic conditions and political uncertainty in the U.S. may have been influential factors in the recent weakness.

The U.S. equity market experienced strong returns of 18.5% (Russell 3000) over the fiscal year. Small cap equities delivered especially good performance of 24.6% (Russell 2000) relative to large caps equities that returned 18.0% (Russell 1000) for the fiscal year. International equities outperformed U.S. markets as the MSCI ACWI ex U.S. (Morgan Stanley Capital International All Country World Index excluding U.S.) Index returned 20.5% for the period, driven by emerging markets. Performance was negative in the broad U.S. fixed income market with the Aggregate

SEATTLE | LOS ANGELES | SAN FRANCISCO | VERUSINVESTMENTS.COM



Bond Index returning -0.3%. U.S. high yield, however, delivered strong performance as spreads continued to tighten (12.7%).

PLAN INVESTMENT RESULTS

The San Mateo County Employees' Retirement Association total Plan returned 12.6% net of fees for the fiscal year ended June 30, 2017. SamCERA was in line with its policy index which returned 12.6% for this time period. For the fiscal year, the total Plan ranked in the 50th percentile for Public Fund Defined Benefit Plans greater than \$1 billion.

The U.S. Equity portfolio underperformed its U.S. equity policy benchmark by 50 basis points during the fiscal year net of fees (18.3% versus 18.8% respectively), which placed it in the 60th percentile of the universe. Within the U.S. Equity asset class, the active large cap manager outperformed the Russell 1000 Index by 140 basis points. The Small Cap composite returned 21.8% versus the Russell 2000 Index at 24.6%. Two active large cap managers and two active small cap managers were terminated during the fiscal year. A low tracking error quantitative manager was hired to replace the small cap managers.

During the fiscal year, the International Equity Composite had a strong absolute return, but trailed its benchmark on a relative basis by 2.7%, returning 18.3% net of fees compared to 21.0% for the MSCI ACWI ex-US IMI Index. This result ranked in the 84th percentile of the peer universe. All of the Plan's active international managers underperformed their respective benchmarks on a relative basis during the fiscal year, but performed in line with expectations for their strategies. It was a tough year for active management as the benchmark beat the peer median for all of the international strategies in the SamCERA portfolio.

During fiscal year 2017, the Plan's Total Fixed Income Composite net return of 7.2% beat its Blended Fixed Income benchmark return of 2.2% and ranked in the top decile of its peer group. The opportunistic credit and global fixed income components of the portfolio were the biggest contributors to returns in the fixed income portfolio. All managers beat their respective benchmarks and had strong peer rankings for their respective strategies. Over the past fiscal year, SamCERA funded two private credit managers for additional alpha potential and to generate returns from the contractual cash yield of underlying loans which are less directly correlated with interest rate changes.

The Risk Parity composite trailed the 60% MSCI World/40% BB Global Aggregate index with a return of 4.1% versus 10.7% for the benchmark. In strong equity markets, risk parity will trail an equity-centric benchmark. SamCERA's risk parity managers are adhering to their risk-balanced strategies and are performing within expectations.

SamCERA's Alternatives portfolio, comprised of Private Equity and Absolute Return strategies, outperformed its blended benchmark (17.1% vs. 14.0% for the blended alternatives index). Private Equity provided the highest absolute return to the Plan of 29.1% for the fiscal year, beating the Russell 3000 +3% index by 7.6%. Absolute return strategies were in line during the period with the composite gaining 4.5% versus the index of one month Libor +4% (4.8%).

The Inflation Hedge composite (comprised of real estate, private real assets, a liquid pool, and TIPS) gained 5.9%, beating its blended benchmark (4.2%). SamCERA's Real Estate component



provided a return of 8.2%, slightly above of the NCREIF ODCE (National Council of Real Estate Investment Fiduciaries Open-end Diversified Core Equity) Index (7.9%) and in the top quartile of its peer group. Private Real Assets lagged its blended index by 2.1% (2.9% v. 5.0% for the blended real assets benchmark). The Plan's TIPS manager gained 1.1%, beating the Bloomberg Barclays US TIPS index (-0.6%). During the fiscal year, SamCERA funded a real assets liquid pool, which consists of commodity, natural resources and infrastructure exposure and is used as a liquid proxy for private real assets. The Plan also continued to build out its real estate portfolio over the period, adding a real estate debt strategy.

ASSET ALLOCATION AND MANAGER STRUCTURE

During the 2017 fiscal year, SamCERA concluded its Asset-Liability Study which was started in fiscal year 2016. As part of the Asset-Liability Study, the Board reviewed what risks were most critical to the Plan, and altered the asset allocation of the plan with those risks in mind. Functional labels (Growth, Diversifying, and Inflation Hedge) were used to better diversify across risk factors and exposure to economic environments. At the conclusion of the study, a new asset allocation was adopted in which growth assets as a whole declined with the majority of the reduction coming from U.S. equities. Diversifying assets increased slightly through additions to core fixed income and absolute return. Inflation assets increased moderately across multiple subcategories – real estate, private real assets and SamCERA's liquid pool.

	Old Asset Allocation	New Asset Allocation	Change
Growth	63%	54%	-9%
Diversifying	15%	18%	3%
Inflation Hedge	14%	20%	6%
Risk Parity	8%	8%	0%

Following the Asset-Liability Study, SamCERA then began a review of its asset class structures. Within US Equity, the allocation to passive large cap was increased to 75%. The passive manager changed benchmarks from the S&P 500 to Russell 1000 to better replicate market exposure. International structure was also reviewed with an emphasis on simplifying the portfolio while maintaining the integrity of the asset class structure. In the coming fiscal year, SamCERA will continue to review its asset class structures across the Plan.

Verus believes that SamCERA has constructed a diversified portfolio that serves its participants well. We will continue to assist the Plan in creating a portfolio that will provide alpha with appropriate risk controls in evolving market conditions.

Sincerely,

Margaret S. Jadallah
Margaret S. Jadallah

NOTE: Returns for periods greater than one year are annualized. Monthly return calculations are time-weighted, and market value based. The performance calculation methodology is consistent with the Chartered Financial Analyst Institute (CFAI) Global Investment Performance Standards®.

INVESTMENT PHILOSOPHY, OBJECTIVES, POLICY, AND ALLOCATION

San Mateo County Employees' Retirement Association's (SamCERA) Investment Policy sets forth the Board of Retirement's (the Board) investment philosophy, from which the following extracts have been drawn. The full policy may be viewed on SamCERA's website at www.samcera.org.

Investment Beliefs

The following summarizes the Board's investment beliefs that have guided it in the development of the Investment Policy and will guide the Board in the oversight of the plan assets.

- Strategic asset allocation is the primary driver of portfolio risk and return.
- SamCERA should have a long-term horizon and not be tempted to deviate from its long-term plan in response to short-term volatility.
- Everything else being equal, simplicity is preferred over complexity.
- For those asset classes evidencing market efficiencies, the manager structure may favor the employment of passive strategies.
- Diversification is fundamental.
- There is no single definition of risk. There are various measures of 'risk' that can be used for various purposes.
- The portfolio should be diversified across many risk dimensions/ timeframes.
- SamCERA should not pursue investments that will not adequately compensate it for the risks that those investments bring.
- Costs matter.

Investment Objectives

The Board shall develop an investment program, consistent with the Investment Beliefs and General Investment Policies in order to meet the following objectives:

- A. Generate risk-adjusted returns that exceed the Asset Allocation Policy Benchmark (as defined in Section 6.0 of the Investment Policy) on a net-of-fee basis over five-year rolling periods.
- B. Move toward full actuarial funding of the Pension Benefit Obligation based on Governmental Accounting Standards Board (GASB) Statement No. 25 and the Board's policy of layered fifteen-year unfunded actuarial accrued liability (UAAL) amortization periods.
- C. Achieve a fund return that meets or exceeds the long-term forecast of capital market returns for the asset allocation portfolio benchmark over multiple economic cycles (e.g., 15-20 years).
- D. Provide a more consistent return stream than a traditional 60% Equity / 40% Fixed Income portfolio as measured by lower portfolio drawdowns over a full market cycle.

Investment Policy

The Investment Policy of the Board of Retirement pursues an investment strategy which reduces risk through the prudent diversification of the portfolio across a broad selection of distinct asset classes.

Consistent with the Investment Beliefs, the Board's investment policy is to:

- A. Achieve long-term risk-adjusted returns consistent with its fiduciary duty.
- B. Pursue an investment strategy that reduces the volatility of returns through prudent diversification of the investment portfolio across a broad selection of distinct asset classes, as provided for in Section 6.0 of the Investment Policy.
- C. Further diversify other risks, including extreme events, liquidity, and leverage by looking beyond traditional asset class definitions by utilizing multiple lenses on portfolio risks.
- D. Adopt an asset allocation target to guide the structure of the investment portfolio, as provided for in Section 6.0 of the Investment Policy, and reevaluate on an annual basis.
- E. Reevaluate the asset-liability study every three to five years.
- F. Delegate full discretion, including whether to include environmental, social, and governance factors, if such factors have a direct relationship to the economic and financial value of an investment, when analyzing the financial merits of competing investment choices on behalf of SamCERA, to each investment manager to the extent authorized in their Investment Management Agreement.
- G. Adopt objectives that encourage investment managers to maximize their performance, within acceptable risk parameters, relative to their individual investment style benchmark.
- H. Refrain from drastically shifting asset class allocations over short time spans, unless it is in the fund's best interest to do so.
- I. Rebalance the portfolio in accordance to the Rebalancing Policy set forth in Section 7.0 of the Investment Policy.

ASSET ALLOCATION

In October 2016, the Board completed an in-depth asset-liability study and approved a new target asset allocation, reducing exposure to public equity and increasing allocations to alternatives, inflation hedge, and fixed income. The new policy consists of 36% in public equity, 23% in fixed income, 13% in alternatives, 8% in risk parity, and 20% in inflation hedge. Implementation of the new policy is anticipated to consist of multiple phases and will take more than one year to complete.

As of June 30, 2017, the target asset allocation incorporated into SamCERA's Investment Policy and detailed in this Investment Section only reflects the portion of the newly adopted allocation that has already been implemented. It does not reflect the portion of the new target asset allocation that has yet to be implemented, which will take more than one year to complete. Due to the multi-stage process, SamCERA's Investment Policy only captures the incremental changes made during the fiscal year so that our actual allocation does not significantly deviate from policy.

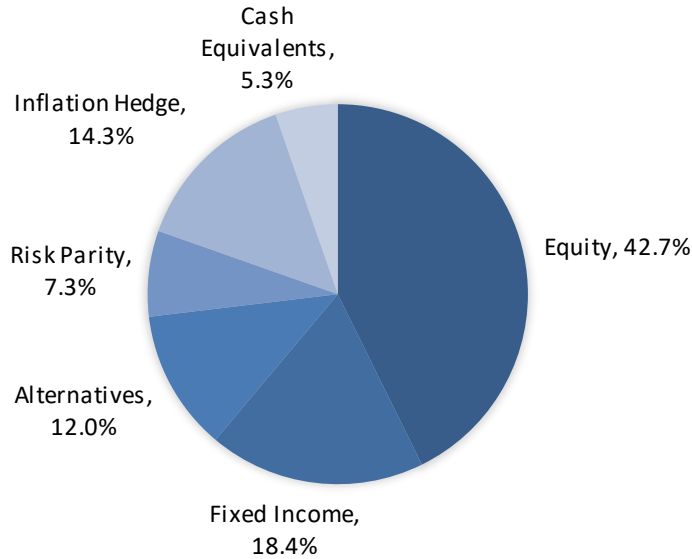
ASSETS ALLOCATION AS A PERCENTAGE OF FAIR VALUE

June 30, 2017

Asset Class	Target	Actual
Equity	42.0%	42.7%
Fixed Income	21.0%	18.4%
Alternatives	13.0%	12.0%
Risk Parity	8.0%	7.3%
Inflation Hedge	16.0%	14.3%
Cash Equivalents	0.0%	5.3%
Total	100.0%	100.0%

ACTUAL ASSET ALLOCATION

June 30, 2017



ASSETS UNDER MANAGEMENT

June 30, 2017

ASSET CLASS

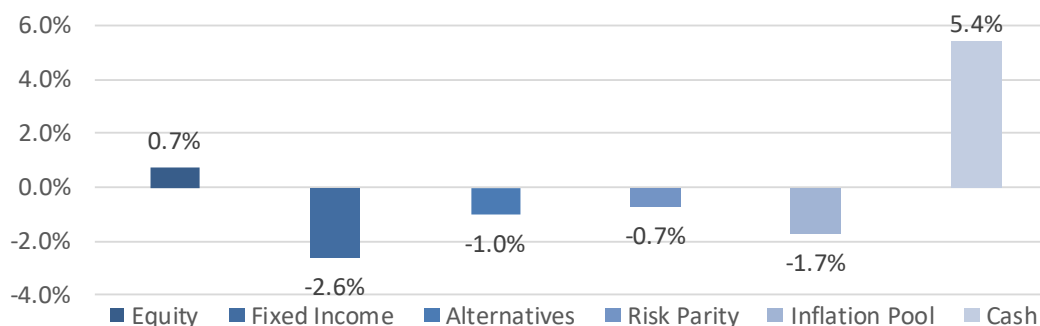
Equity	\$ 1,717,793,138
Fixed Income	738,544,220
Alternatives	480,730,879
Risk Parity	291,757,142
Inflation Hedge	573,336,864
Total Net Portfolio Value	<u>\$ 3,802,162,243</u>

RECONCILIATION TO STATEMENT OF FIDUCIARY NET POSITION

Total Net Portfolio Value	\$ 3,802,162,243
Cash Equivalents	217,402,059
Investments Receivable	25,398,551
Prepaid Expense	7,669
Capital Assets (Net of Depreciation)	7,629,373
Investments Payable	<u>(13,897,905)</u>
Fiduciary Net Position as of June 30, 2017	<u>\$ 4,038,701,990</u>

PERCENT OF DEVIATION FROM ASSET ALLOCATION

June 30, 2017



BENCHMARKS (JUNE 30, 2017)

Asset Class	Policy Benchmark
EQUITY BENCHMARK	54.8% Russell 3000, 45.2% Morgan Stanley Capital International ex-United States Investable Market Indexes (MSCI ex-US IMI)
Domestic Equity Benchmark	Russell 3000
International Equity Benchmark	Morgan Stanley Capital International ex-United States Investable Market Indexes (MSCI ex-US IMI)
FIXED INCOME BENCHMARK	57.1% Bloomberg Barclays Aggregate (BBgBarc), 28.6% BBgBarc Intermediate High Yield (HY), 14.3% BBgBarc Multiverse
Domestic Fixed Income Benchmark	66.7% Bloomberg Barclays Aggregate (BBgBarc), 33.3% BBgBarc Intermediate High Yield (HY)
Global Fixed Income Benchmark	BBgBarc Multiverse
ALTERNATIVES BENCHMARK	53.8% Russell 3000 + 3%, 46.2% London Interbank Offered Rate (LIBOR) + 4%
Private Equity Benchmark	Russell 3000 + 3%
Hedge Funds/Absolute Return Benchmark	LIBOR + 4%
RISK PARITY BENCHMARK	60% Morgan Stanley Capital International World, 40% BBgBarc Aggregate
INFLATION HEDGE BENCHMARK	43.75% National Council of Real Estate Investment Fiduciaries Open-End Diversified Core Equity (NCREIF ODCE), 14.87% Bloomberg Roll Select Commodity, 14.4% Standard & Poor (S&P) Global Large-MidCap Commodity and Resource, 14.4% S&P Global Infrastructure, 12.5% Barclays Treasury Inflation Protected Securities (TIPS)
Real Estate Benchmark	NCREIF ODCE
Private Real Asset Benchmark	34 % Bloomberg Roll Select Commodity, 33% S&P Global Large-MidCap Commodity and Resource, 33% S&P Global Infrastructure
Liquid Pool Benchmark	34 % Bloomberg Roll Select Commodity, 33% S&P Global Large-MidCap Commodity and Resource, 33% S&P Global Infrastructure
CASH EQUIVALENTS BENCHMARK	91-day Treasury-Bills

SCHEDULE OF PORTFOLIO RETURNS

Performance as of June 30, 2017, Net of Fees

Asset Class	Total Time-Weighted Rate of Return ⁽⁵⁾		
	One Year	Three Years	Five Years
EQUITY	18.60%	6.10%	12.00%
Equity Benchmark	20.00%	6.00%	12.00%
Domestic Equity	18.30%	8.50%	14.10%
Domestic Equity Benchmark	18.50%	8.80%	14.40%
International Equity	18.30%	1.80%	8.00%
International Equity Benchmark	21.00%	1.60%	7.90%
FIXED INCOME	7.20%	3.50%	4.50%
Fixed Income Benchmark	2.20%	2.70%	2.50%
Domestic Fixed Income	6.50%	3.80%	4.30%
Domestic Fixed Income Benchmark	3.00%	3.20%	2.70%
Global Fixed Income	10.90%	1.50%	4.80%
Global Fixed Income Benchmark	-1.40%	-0.20%	1.10%
ALTERNATIVES	17.10%	7.80%	7.20%
Alternatives Benchmark	13.60%	3.80%	6.70%
Private Equity	29.10%	19.00%	15.20%
Private Equity Benchmark	21.50%	12.10%	17.60%
Hedge Funds/Absolute Return	4.50%	7.10%	6.30%
Hedge Funds/Absolute Return Benchmark	4.80%	4.40%	4.30%
RISK PARITY	4.10%	2.80%	5.80%
Risk Parity Benchmark	10.70%	6.60%	9.60%
INFLATION HEDGE ⁽¹⁾	5.90%	*	*
Inflation Hedge Benchmark	4.20%	*	*
Real Estate ⁽²⁾	8.20%	11.70%	11.70%
Real Estate Benchmark	7.90%	11.30%	11.80%
Private Real Asset ⁽³⁾	2.90%	*	*
Private Real Asset Benchmark	5.00%	*	*
Liquid Pool ⁽⁴⁾	*	*	*
Liquid Pool Benchmark	*	*	*
CASH EQUIVALENTS	0.80%	1.00%	0.70%
Cash Equivalents Benchmark	0.50%	0.20%	0.20%
TOTAL	12.60%	5.50%	9.40%
Policy Benchmark	12.60%	5.30%	9.20%

(1) The creation of a dedicated Inflation Hedge asset class was effective April 1, 2016.

(2) Prior to April 1, 2016, Real Estate assets were allocated to SamCERA's allocation to a dedicated Real Estate asset class.

(3) Prior to April 1, 2016, Private Real assets were allocated as part SamCERA's allocation to Alternatives.

(4) The dedicated Liquid Pool was funded October 2016.

(5) Return calculations were prepared using a time-weighted rate of return, net of fees, in accordance with the Global Investment Performance Standards.

* Return information is not available.

SCHEDULE OF TOP TEN EQUITIES AND FIXED INCOME SECURITIES

June 30, 2017

Top Ten Equity Securities ⁽¹⁾

Shares	Company Name	Ticker	Stock Exchange	Fair Value
584,365	United Overseas Bank Limited	UOB	Singapore	\$ 9,812,629
83,417	Nestle	NESNE	Swiss	7,268,990
67,870	Sanofi	SNY	Paris	6,483,788
177,272	Taiwan Semiconductor	TSM	New York	6,197,429
780,790	Iberdrola	IBE	Madrid	6,174,045
30,747	Naspers	NPN	Johannesburg	5,972,228
206,700	Honda Motor Company	HMC	Tokyo	5,636,604
259,277	Glaxosmithkline	GSK	London	5,508,165
1,181,680	Telia Company	TELIA	Stockholm	5,434,477
216,955	ABB Group	ABB	Swiss	5,364,689
Total Top 10 Equities				\$ 63,853,044

⁽¹⁾ Securities owned in commingled vehicles are not included in this schedule. A complete list of portfolio holdings in SamCERA separately held accounts is available upon request.

Top Ten Fixed Income Securities ⁽¹⁾

Security	Coupon	S&P Rating	Maturity	Fair Value
United States Treasury Note	0.125	AA+	7/15/2022	\$ 10,176,454
United States Treasury Note	1.250	AA+	7/15/2020	9,520,184
United States Treasury Bond	1.750	AA+	1/15/2028	7,982,574
United States Treasury Note	0.375	AA+	7/15/2023	7,523,633
United States Treasury Bond	1.375	AA+	2/15/2044	6,573,356
United States Treasury Note	0.125	AA+	4/15/2019	5,716,762
United States Treasury Bond	2.375	AA+	1/15/2025	4,655,468
United States Treasury Bond	3.375	AA+	4/15/2032	4,361,436
United States Treasury Note	0.250	AA+	1/15/2025	3,357,935
United States Treasury Bond	0.875	AA+	2/15/2047	2,512,019
Total Top 10 Fixed Income				\$ 62,379,821

⁽¹⁾ Securities owned in commingled vehicles are not included in this schedule. A complete list of portfolio holdings in SamCERA separately held accounts is available upon request.

LIST OF INVESTMENT MANAGERS

June 30, 2017

GROWTH**Domestic Equity**

BlackRock
DE Shaw
Quantitative Management Associates

International Equity

Baillie Gifford
BlackRock
Fidelity Institutional Asset Management
Mondrian Investment Partners
Parametric Portfolio Associates

Private Equity

ABRY Partners
Angeles Equity Partners
Catalyst Fund
Cevian Capital
Emergence Capital Partners
General Catalyst Partners
JLL Partners
New Enterprise Associates
Oak Hill Advisors
Sycamore Partners
TCW
Third Rock Ventures
Warburg Pincus

Opportunistic Credit

Angelo Gordon
Beach Point Capital Management
Brigade Capital Management
Franklin Templeton
Tennenbaum Capital Partners
White Oak

DIVERSIFYING**Fixed Income**

BlackRock
Fidelity Institutional Asset Management
Western Asset Management

Absolute Return

Aberdeen Standard Investments
AQR Capital Management

INFLATION HEDGE**Liquid Pool**

State Street Global Advisors

Real Estate

Invesco
PGIM

Private Real Assets

Blue Road Capital
CIM Group
EnCap Investments
EverStream Energy Capital Management
Sheridan Production Partners
Taurus Funds Management

TIPS

Brown Brothers Harriman

RISK PARITY

AQR Capital Management
PanAgora Asset Management

CASH OVERLAY

Parametric Portfolio Associates

SCHEDULE OF PROFESSIONAL SERVICES AND FEES*For the Fiscal Year Ended June 30, 2017*

	Management Fees	Fair Value of Investments
ASSETS UNDER MANAGEMENT		
Equity	\$ 5,114,666	\$1,717,793,138
Fixed Income	4,998,196	738,544,220
Alternatives	6,948,227	480,730,879
Risk Parity	1,058,181	291,757,142
Inflation Hedge	2,997,405	573,336,864
Cash	193,557	25,207,998
Total	\$ 21,310,232	\$3,827,370,241

OTHER INVESTMENT EXPENSES

Investment Consultant	\$ 450,596
Actuarial Consulting	169,000
Master Custodian	241,875
Other Professional Services	69,900
Total	\$ 931,371

TOP 10 BROKER COMMISSIONS*Commission per Share Traded, For the Fiscal Year Ended June 30, 2017*

Brokerage Firm	Commission	Number of Shares Traded	Commission per share
Penserra Securities	\$ 96,287	10,698,627	\$0.009
Deutsche Bank Securities	31,380	15,363,202	0.002
Liquidnet	21,116	644,552	0.033
Morgan Stanley & Co	16,609	17,641,726	0.001
Citigroup Global Markets	15,104	29,780,049	0.001
Goldman Sachs	14,768	878,713	0.017
Stifel, Nicolaus & Company	4,788	126,884	0.038
Instinet Europe	3,815	351,485	0.011
Wells Fargo	3,668	95,646	0.038
UBS AG London	3,216	361,939	0.009
All Other Brokerage Firms	119,072	445,719,388	0.000
Total	\$ 329,823	521,662,211	\$0.001



ACTUARIAL SECTION

ACTUARY'S CERTIFICATION



1301 Fifth Avenue
 Suite 3800
 Seattle, WA 98101-2805
 USA
 Tel +1 206 824 7940
 Fax +1 206 823 3485
 milliman.com

October 11, 2017

Board of Retirement
 San Mateo County Employees' Retirement Association
 100 Marine Parkway, Suite 125
 Redwood Shores, CA 94065-5208

Dear Members of the Board:

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

SamCERA measures its funded status as the ratio of the actuarial value of valuation assets over the actuarial accrued liabilities. The funded status based on the past three actuarial valuations is shown below:

Valuation Date	Funded Ratio
June 30, 2015	82.6%
June 30, 2016	83.1%
June 30, 2017	84.3%

The funded ratio increased in the last year primarily due to contributions in excess of the value of benefits and investment earnings in excess of the assumed rate. It was offset somewhat due to assumptions adopted as a result of the 2017 Investigation of Experience study effective June 30, 2017.

It is our opinion that SamCERA continues in sound financial condition as of June 30, 2017 and will continue to remain in sound financial condition provided that employer contributions are made based on the current funding policy and the valuation is based on reasonable assumptions. To be in a "sound financial condition," we believe the plan should be projected to reach or exceed a 100% funded ratio in 30 years or less. SamCERA meets this criteria. Under SamCERA's funding policy, the employer's contributions are set equal to the net employer normal cost rate plus the amortization payment of any Unfunded Actuarial Accrued Liability (UAAL). The amortization of the initial UAAL as of June 30, 2008 is funded over a closed 15-year period ending June 30, 2023. The amortization of any subsequent changes in the UAAL is funded over separate closed 15-year layers which are determined annually. It should be noted that the 2017 valuation results defer a net market gain on assets. Thus, the funded ratio is expected to be higher once those market gains are reflected in the 2018 and later valuations, assuming future investment earnings are equal to the assumed rate. Additionally, it is the County's intent to make contributions in excess of those required under the funding policy. This, combined with SamCERA's short amortization period, is expected to increase the funded status in the future.

The June 30, 2017 valuation results are based on the membership data and the asset information provided by SamCERA. In our examination of these data, we have found them to be reasonably consistent and comparable with data used for other purposes, although we have not audited the data at the source. Since the valuation results are dependent on the integrity of the data supplied, the results can be expected to differ if the underlying data is incomplete or missing. It should be noted that if any data or other information is found to be materially inaccurate or incomplete, our calculations will need to be revised.

The valuation is also based on our understanding of SamCERA's current benefit provisions and the actuarial assumptions which were reviewed and adopted by the Board. The actuarial assumptions were last reviewed and adopted by the Board in 2017. The economic and demographic assumptions were adopted in July 2017, based on the triennial investigation of experience study report as of April 30, 2017. The assumptions and methods used for financial reporting under GASB 67 are the same as the funding assumptions and methods with the following exceptions:

This work product was prepared solely for SamCERA for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

Offices in Principal Cities Worldwide



Board of Retirement
October 11, 2017
Page 2

1. The discount rate and investment return assumption of 6.92% differs from the funding valuation due to the addition of an administrative expense load of 0.17%.
2. The asset valuation method is fair market value.

The actuarial computations presented in the valuation report are for purposes of determining the recommended funding amounts for SamCERA consistent with our understanding of its funding requirements and goals. The liabilities are determined by using the entry age normal funding method. The actuarial assets are determined using a modified five-year smoothed recognition method of asset gains and losses, determined as the difference of the actual market value to the expected market value for each of the prior 10 six-month periods. The actuarial assets are restricted to not vary more than 20% from the market value. We believe the actuarial assumptions and methods are internally consistent, reasonable and meet the parameters of Governmental Accounting Standards Board Statement No. 67 and No. 68 for fulfilling financial accounting requirements. Nevertheless, the emerging costs will vary from those presented in our report to the extent that actual experience differs from that projected by the actuarial assumptions. Future actuarial measurements may differ significantly from the current measurements as presented in the valuation report due to many factors. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements.

Our valuation report and this letter have been prepared exclusively for SamCERA for a specific and limited purpose. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. It is a complex, technical analysis that assumes a high level of knowledge concerning SamCERA's operations, and uses SamCERA's data, which Milliman has not audited. Any third party recipient of Milliman's work product who desires professional guidance should not rely upon Milliman's work product, but should engage qualified professionals for advice appropriate to its own specific needs.

Milliman provided the following schedules and exhibits for use in the actuarial section:

1. Rate of separation from actuarial service
2. Employer contribution rates as a percentage of covered payroll
3. Summary of significant actuarial statistics and measures
4. Solvency test
5. Schedule of funding progress
6. History of employer Statutory Contribution Rates
7. Demographic activity of retirees and beneficiaries
8. Actuarial analysis of financial experience
9. Summary of active member valuation data
10. Schedule of average monthly salary of active members
11. Participating employers and active members
12. Summary of retired and inactive member benefits

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

We certify that the June 30, 2017 valuation was performed in accordance with the Actuarial Standards Board (ASB) standards of practice and by qualified actuaries. We are members of the American Academy of Actuaries and have experience in performing valuations for public retirement systems.

Sincerely,

Nick J. Collier, ASA, EA, MAAA
Consulting Actuary
NJC/CJG/nlo

Craig J. Glyde, ASA, EA, MAAA
Consulting Actuary

This work product was prepared solely for SamCERA for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.



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

September 20, 2017

Board of Retirement
San Mateo County Employees' Retirement Association
100 Marine Parkway, Suite 125
Redwood Shores, California 94065-5208

Re: Audit of June 30, 2017 Actuarial Valuation

Dear Members of the Board:

We are pleased to present the results of our audit of the June 30, 2017 Actuarial Valuation for the San Mateo County Employees' Retirement Association (SamCERA). The purpose of this audit was to verify the calculations completed by Milliman and to offer comments on the methodology and the results of their actuarial valuation.

Our audit confirms that the results of the actuarial calculations as of June 30, 2017 are reasonable, and that those calculations are based on generally accepted actuarial principles and practices.

This review was conducted by Paul Angelo, a Fellow of the Society of Actuaries, Member of the American Academy of Actuaries, and an Enrolled Actuary under ERISA, and Andy Yeung, an Associate of the Society of Actuaries, Member of the American Academy of Actuaries, and an Enrolled Actuary under ERISA. This review was conducted in accordance with the standards of practice prescribed by the Actuarial Standards Board.

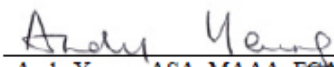
The assistance of Milliman and SamCERA is gratefully acknowledged. We appreciate the opportunity to be of service to SamCERA's Board of Retirement, and we are available to answer any questions you may have on this report.

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.

Sincerely,



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



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

TJH/bbf

cc: Nick Collier, ASA, MAAA, EA
Craig Glyde, ASA, MAAA, EA

5505425v9/13476.104

Benefits, Compensation and HR Consulting. Member of The Segal Group. Offices throughout the United States and Canada

ACTUARIAL VALUATION

Introduction

San Mateo County Employees' Retirement Association (SamCERA) provides basic retirement, disability, and death benefits based on a defined formula using final average compensation, years of service, and age of the member to calculate pension benefits. Details of the pension and plan provisions are provided in the Financial Section under the Notes to the Basic Financial Statements (Note 1).

The County Employees' Retirement Law of 1937 establishes the basic obligations for employers and members to the pension plan. The Board of Retirement (the Board) is responsible for establishing and maintaining the funding policy by adopting contribution rates recommended by its actuary in accordance with the membership type and the plan in which a member belongs.

Fund Objective

The funding objective is to establish contribution rates which, over time, will remain as a level percentage of payroll. Details for the 10 year schedule of actuarially determined and actual contributions can be found in the Financial Section under the Required Supplementary Information.

Valuation Policy

SamCERA engages an independent actuarial firm to perform an annual actuarial valuation as of June 30. The actuarial valuation is used to calculate the value of

future benefits, assess the funded status, and determine contribution rates for participating employers and employees. The contribution rates calculated at each year-end as of June 30 are subject to a "one year" deferral. Thus, the new contribution rates calculated in the valuation at June 30, 2017, will be effective on July 1, 2018. In the actuarial valuation, the actuary applies specific actuarial methods and assumptions to project as closely as possible present contributions to meet future benefit obligations.

Contributions

The participating employers and members are responsible for contributing to the cost of benefits each year (commonly known as normal cost contributions). The portion not funded by member contributions is the responsibility of the employers (commonly known as the employer normal cost).

The employers are also responsible for funding shortfalls related to accrued liability for past services arising from changes in the economic and demographic assumptions. The employers' contribution towards the funding shortfalls is commonly known as the Unfunded Actuarial Accrued Liability (UAAL) contribution.

Actuarial Cost Method

The entry age normal cost method is selected by the actuary for the annual actuarial valuation. Under this method, the actuarial present value of the projected benefits of each individual included in the valuation is allocated as a level percentage of the individual projected compensation between entry age and assumed

ACTUARIAL METHODS AND ASSUMPTIONS (FOR FUNDING PURPOSES)

VALUATION DATE	June 30, 2017
ACTUARIAL COST METHOD	Entry Age Normal
ACTUARIAL EXPERIENCE STUDY	July 1, 2014 to April 30, 2017
AMORTIZATION METHOD	Level percentage of projected payroll
AMORTIZATION PERIOD	UAAL as of June 30, 2008, is amortized over a closed 15-year period ending June 30, 2023. Subsequent changes in the UAAL are amortized over separate closed 15-year layers that are determined annually.
ASSET VALUATION METHOD	5-year smoothed recognition of asset gains and losses (determined as the difference of the actual fair value to the expected fair value), which cannot vary more than 20% from the fair value.
ACTUARIAL ASSUMPTIONS	
Economic assumptions:	
Investment rate of return	6.75%
Inflation rate (CPI)	2.50%
General wage increases	3.00%
Demographic assumptions:	
Salary increases due to service	The total expected increase in salary represents the increase due to promotions and longevity, adjusted for an assumed 3.00% per annum increase in the general wage. The total result is compounded rather than additive.
Mortality	Rates are based on RP-2014 Healthy Annuitant Mortality Table for respective genders with MP-2014 Ultimate Projection Scale. See the valuation report as of June 30, 2017, for details.
Retirement	See the valuation report as of June 30, 2017, for details.
Disability	See the valuation report as of June 30, 2017, for details.
Other terminations of employment	See the valuation report as of June 30, 2017, for details.
Refund of contributions on vested termination	See the valuation report as of June 30, 2017, for details.

Note: The actuarial methods and assumptions were selected by the Retirement Board with the recommendation of the actuary.

retirement age. The portion of this actuarial present value allocated to the valuation year is commonly called the normal cost (the actuarial value of benefits accruing for the present year). The portion not provided for at the valuation date represents the UAAL.

The entry age normal cost method is used for both funding and financial reporting purposes. This method was selected for funding purposes because it provides a relatively level normal cost rate as a percentage of pay (assuming no changes in assumptions or benefits) from year to year. In addition, Governmental Accounting Standards Board (GASB) Statement No. 67 requires that this method be used for financial reporting purposes.

Between the funding and financial reporting valuations, the only difference in assumptions is the investment return assumption. The assumed investment return for funding is 6.75%, net of both investment and administrative expenses; whereas the assumed investment return for financial reporting is 6.92%, net of investment expenses only. For financial reporting purposes, GASB Statements No. 67 and No. 68 require that the investment return assumption be gross of administrative expenses.

Amortization Method

Contributions are initially applied toward the normal cost. If the plan is less than 100% funded, the remainder is applied toward the UAAL. The UAAL represents the difference between the actuarial accrued liability (AAL) and the actuarial value of assets (AVA). The UAAL is amortized using

the “Level Percent of Payroll” amortization method.

The UAAL as of June 30, 2008, is amortized over a closed 15-year period as a level percentage of the projected salaries of present and future members of SamCERA over the remaining period from the valuation date. This is commonly referred to as a closed amortization method. Actuarial gains and losses after the June 30, 2008 valuation are amortized over new closed 15-year periods from their respective valuation dates (commonly known as 15-year layered amortization).

Beginning with the June 30, 2010 actuarial valuation, the San Mateo County Mosquito and Vector Control District (the District) adopted the same “enhanced” benefit formula that applies to Plans 1, 2, and 4 of the County of San Mateo (the County) General members and the same member rates currently being paid by County members from those plans. Because the District does not participate in cost sharing on the member rates, the District has a separate normal cost rate and expected member contribution rate from the County General Group.

Actuarial Asset Valuation Method

The actuarial asset valuation method used is a 5-year smoothed recognition method with a 20% corridor. This method takes into account appreciation (or depreciation) in investments to smooth asset values by averaging the excess of the actual over the expected income, on a fair value basis, over a five year period. The smoothed asset value is subject to a 20% corridor, or within 20% of the actual asset value.

Actuarial Assumptions

Economic and demographic assumptions are used to determine future contribution requirements from employers and members. The demographic assumptions utilize the information from the latest Experience Study from July 1, 2014, to April 30, 2017. The assumptions selected are used to estimate the actuarial cost of the pension plan and determine the present contributions necessary to meet the pension benefits in the future.

The actuarial assumptions used in the valuation are intended to estimate the future experience of SamCERA's members and SamCERA's earnings in areas that may affect the projected benefit flow and anticipated investment earning. Any variations in future experience from these assumptions will result in corresponding changes in the estimated costs of SamCERA's benefits. The assumptions will next be reviewed in detail in 2020 as part of the triennial investigation of experience.

Key Economic Assumptions

Investment Rate of Return. The future investment earnings of SamCERA's assets are accrued at an annual rate of 6.75%, compounded annually (3.375% per six-month period), net of both investment and administrative expenses. The annual rate of 6.75% was 0.25% lower than the previous assumption and was effective June 30, 2017.

Inflation Rate. The assumed rate of inflation for the 2017 valuation is 2.50%, which is 0.25% lower than the previous assumption.

Projected General Wage Increase. The assumed rate of annual wage increase for the 2017 valuation is 3.00%, which is 0.25% lower than the previous assumption.

Cost of Living Adjustment (COLA). The COLA adjustments depend upon the plan in which a member is enrolled and the Consumer Price Index (CPI) for the San Francisco Bay Area. The COLA is limited to 5% for General and Safety members in Plan 1; 3% for Probation members in Plan 1 and all members in Plan 2; and 2% for members in Plans 4, 5, 6, and 7. Plan 3 members do not receive a COLA.

Key Demographic Assumptions

Salary Increases due to Service. The expected annual increase in salary assumption includes an expected annual increase of 3.00% due to increases in the general wage level of membership, and expected annual increases due to promotion and longevity, which vary depending on a member's years of service.

Retirement. The retirement rates vary by age. All General members at age 75 and all Safety members at 65 are assumed to retire immediately. Additionally, when a member's benefit is equal to or greater than the 100% of compensation limit, the member is also assumed to retire immediately.

Retiree Mortality—Other Than Disabled Members. The same postretirement mortality rates are used in the valuation for active members, members retired for service, and beneficiaries. These rates were adopted June 30, 2017.

- General and Safety Males: RP-2014 Healthy Annuitant Mortality Table for Males multiplied by 95%, with MP-2014 Ultimate Projection Scale.
- General and Safety Females: RP-2014 Healthy Annuitant Mortality Table for Females multiplied by 95%, with MP-2014 Ultimate Projection Scale.

Retiree Mortality – Disabled Members.

- General Males: Average of RP-2014 Healthy Annuitant (multiplied by 95%) and Disabled Mortality (multiplied by 105%) Tables for Males, with MP-2014 Ultimate Projection Scale (minimum is 1.0%).
- Safety Males: RP-2014 Healthy Annuitant Mortality Table for Males multiplied by 105%, with MP-2014 Ultimate Projection Scale (minimum is 1.0%).
- General Females: Average of RP-2014 Healthy Annuitant (multiplied by 95%) and Disabled Mortality (multiplied by 105%) Tables for Females, with MP-2014 Ultimate Projection Scale (minimum is 0.5%).
- Safety Females: RP-2014 Healthy Annuitant Mortality Table for Females multiplied by 105%, with MP-2014 Ultimate Projection Scale (minimum is 0.5%).

Separation from Active Status. The probabilities of termination of employment due to the causes stated below are presented on page 112. Each rate represents the probability that a member will separate from service at each age due to the particular reason. For example, a

rate of 0.0300 for a member's service retirement at age 50 assumes that 30 out of 1,000 members who are age 50 will retire at that age.

Separation from active status can be due to one of the following reasons:

- Service retirement: Member retires after meeting age and service requirements for reasons other than disability.
- Contribution withdrawal: Member terminates and elects a refund of member contributions, or a deferred vested retirement benefit.
- Service disability: Member receives disability retirement; disability is service related.
- Ordinary disability: Member receives disability retirement; disability is not service related.
- Service death: Member dies before retirement; death is service related.
- Ordinary death: Member dies before retirement; death is not service related.

SUMMARY OF SIGNIFICANT ACTUARIAL STATISTICS AND MEASURES

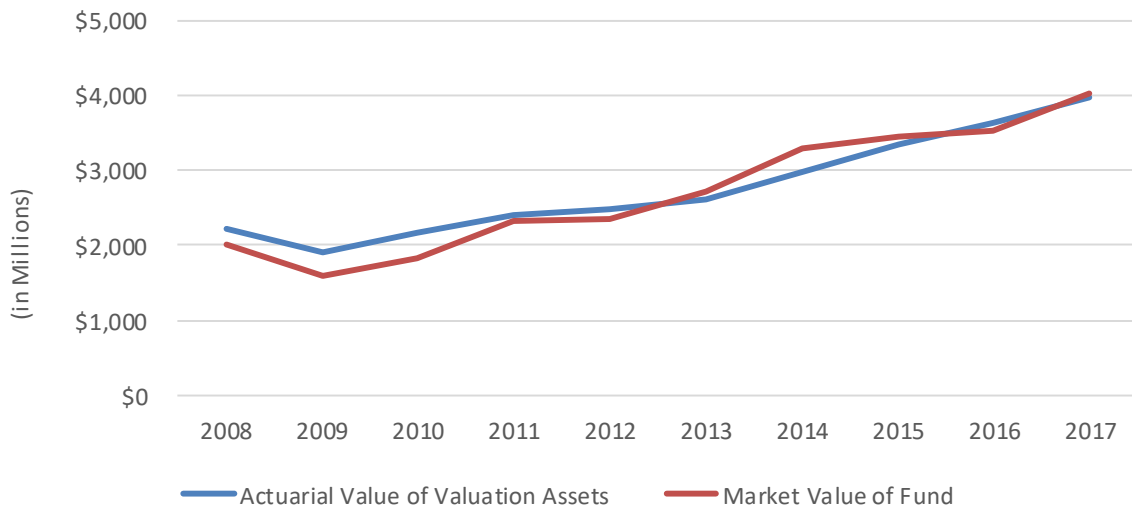
	June 30, 2017	June 30, 2016	Relative Change
ACTIVE MEMBERS			
Number of Members	5,337	5,187	2.9%
Average Age	44.2	45.4	(2.6)%
Average Credited Service	10.5	10.8	(2.8)%
Total Active Payroll (In Thousands)	\$510,132	\$472,385	8.0%
Average Monthly Salary	\$8,154	\$7,933	2.8%
RETIRED MEMBERS			
Number of Members			
Service Retirement	3,869	3,749	3.2%
Disability Retirement	469	454	3.3%
Beneficiaries	618	545	13.4%
Average Age	71.2	71.0	0.3%
Actual Retiree Benefits Paid (In Thousands)	\$190,364	\$179,497	6.1%
Average Monthly Pension	\$3,347	\$3,268	2.4%
NUMBER OF INACTIVE MEMBERS	1,487	1,486	0.1%
ASSETS			
Market Value of Fund (In Thousands)	\$4,038,702	\$3,541,388	14.0%
Return on Market Value	12.6%	0.7%	
Valuation Assets (In Thousands)	\$3,976,717	\$3,624,726	9.7%
Return on Valuation Assets	7.8%	6.4%	
LIABILITY VALUES (IN THOUSANDS)			
Actuarial Accrued Liability	\$4,719,850	\$4,362,296	8.2%
Unfunded Actuarial Accrued Liability	\$743,133	\$737,570	0.8%
Deferred Asset (Gains) / Losses	(\$21,816)	\$119,951	
FUNDED RATIO			
Based on valuation assets	84.3%	83.1%	1.4%

Valuation Assets

Valuation Assets are the actuarial value of the fund, less the value of any reserves which have been set aside for current liabilities and special benefits (if any) to be funded outside of the actuarially determined contribution rates.

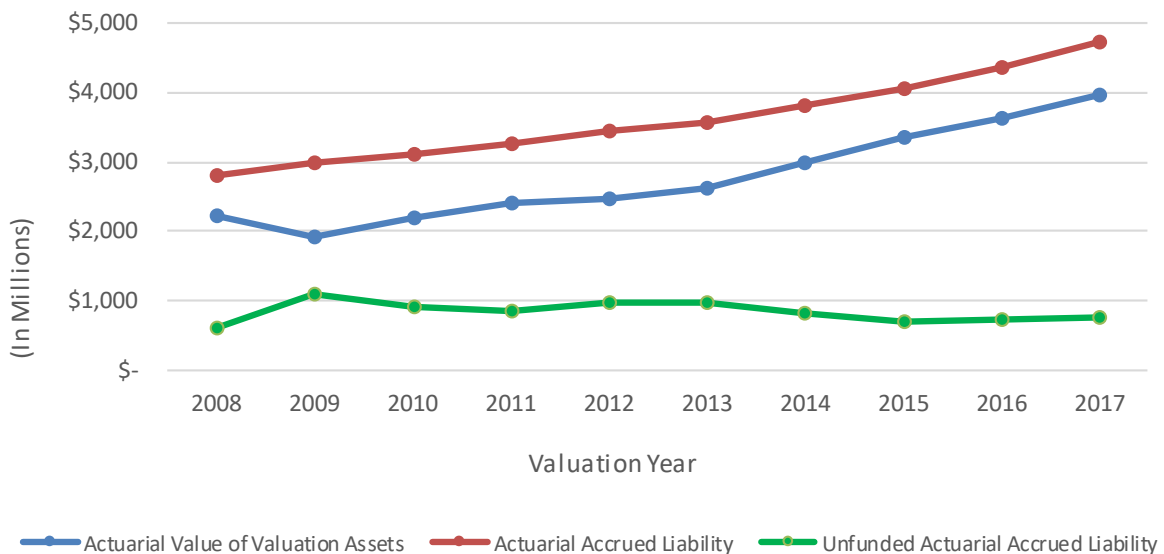
APPLICABLE VALUATION ASSETS

June 30



ACTUARIAL VALUATION

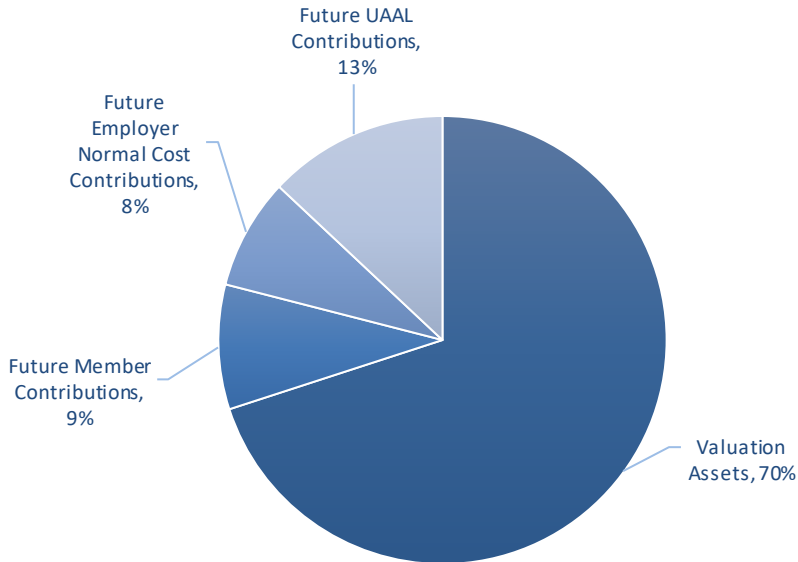
June 30



ACTUARIAL VALUATION—SAMCERA'S RESOURCES

June 30, 2017

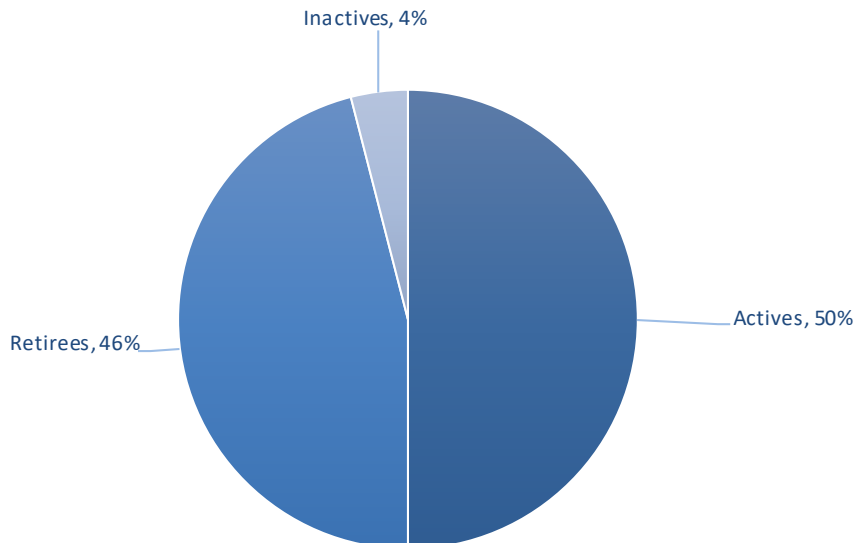
SamCERA's resources equal the actuarial assets plus the expected future contributions by both the employers and members.



ACTUARIAL VALUATION—SAMCERA'S LIABILITIES

June 30, 2017

SamCERA's liabilities reflect benefits already earned in the past and those expected to be earned in the future by current members.



SOLVENCY TEST

(Dollars in Thousands)

Actuarial Valuation Date as of June 30,	Valuation Assets	Actuarial Accrued Liabilities			Portion of Actuarial Accrued Liabilities Covered by Assets		
		Active Member Contributions (A)	Retirees and Beneficiaries ⁽¹⁾ (B)	Active Members (Employer Financed Portion) (C)	(A)	(B)	(C)
2008	\$2,218,937	\$385,300	\$1,550,875	\$870,047	100%	100%	32%
2009	1,909,679	412,147	1,670,547	905,018	100%	90%	0%
2010	2,179,076	449,355	1,745,146	903,952	100%	99%	0%
2011	2,405,140	485,126	1,866,219	895,382	100%	100%	6%
2012	2,480,271	498,569	2,022,791	921,193	100%	98%	0%
2013	2,618,639	534,276	2,157,590	880,884	100%	97%	0%
2014	2,993,187	584,080	2,285,328	927,634	100%	100%	13%
2015	3,343,550	628,287	2,451,544	965,955	100%	100%	27%
2016	3,624,726	679,246	2,635,409	1,047,641	100%	100%	30%
2017	3,976,717	735,102	2,811,651	1,173,097	100%	100%	37%

⁽¹⁾ Includes inactive members

SCHEDULE OF FUNDING PROGRESS

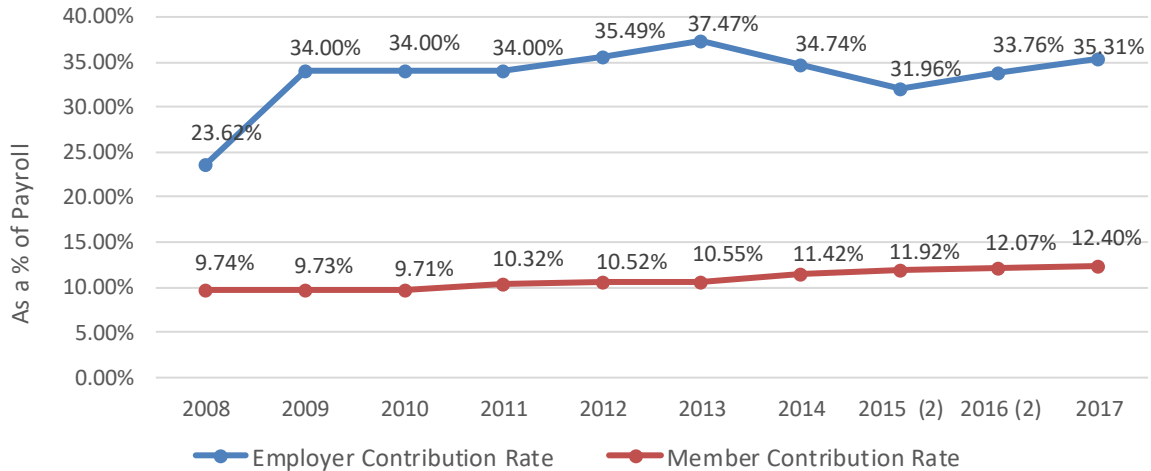
(Dollars in Thousands)

Actuarial Valuation Date as of June 30,	(a) Actuarial Value of Valuation Assets	(b) Actuarial Accrued Liability	(b-a) Unfunded Actuarial Accrued Liability (UAAL)	(a/b) Funded Ratio	(c) Covered Payroll	[(b-a)/c] UAAL as a Percentage of Covered Payroll
2008	\$2,218,937	\$2,806,222	\$587,285	79.1%	\$411,293	142.79%
2009	1,909,679	2,987,712	1,078,033	63.9%	433,668	248.58%
2010	2,179,076	3,098,453	919,377	70.3%	434,295	211.69%
2011	2,405,140	3,246,727	841,587	74.1%	427,041	197.07%
2012	2,480,271	3,442,553	962,282	72.0%	418,916	229.71%
2013	2,618,639	3,572,750	954,111	73.3%	404,361	235.96%
2014	2,993,187	3,797,042	803,855	78.8%	416,274	193.11%
2015	3,343,550	4,045,786	702,236	82.6%	439,018	159.96%
2016	3,624,726	4,362,296	737,570	83.1%	472,385	156.14%
2017	3,976,717	4,719,850	743,133	84.3%	510,132	145.67%

Note: The ten-year schedule of actuarially determined and actual contributions can be found in the Financial Section Under the Required Supplementary Information.

EMPLOYER AND MEMBER CONTRIBUTION RATES ⁽¹⁾

Determined at June 30



⁽¹⁾ The contribution rates determined as of the valuation date will become effective a year later. For example, the contribution rates determined as of June 30, 2017, will become effective on July 1, 2018.

⁽²⁾ The Statutory Contribution Rates reflect changes in member rates negotiated subsequent to the 2015 and the 2016 valuations.

EMPLOYER CONTRIBUTION RATES FOR ALL PLANS COMBINED AS A PERCENTAGE OF COVERED PAYROLL

	Fiscal Year Beginning		
	July 1, 2017 ⁽²⁾	July 1, 2016 ⁽¹⁾	Change
Gross Normal Cost	22.31%	21.95%	0.36%
Less: Member Contributions	(12.07)%	(11.92)%	(0.15)%
Employer Normal Cost	10.24%	10.03%	0.21%
UAAL Amortization	23.52%	21.93%	1.59%
Total Employer Contribution Rate	33.76%	31.96%	1.80%

⁽¹⁾ Contribution rates for fiscal year beginning July 1, 2016, reflects all valuation addendums subsequent to the 2015 valuation.

⁽²⁾ The total employer rate of 33.76% (which reflects all valuation addendums subsequent to the 2016 valuation) is the aggregate rate for all employers. For the fiscal year beginning July 1, 2017, employer rates by employer are as follows:

- a) The County contribution rate is 33.91% of pay.
- b) The Court contribution rate is 30.44% of pay.
- c) The District contribution rate is 24.52% of pay.

HISTORY OF EMPLOYER STATUTORY CONTRIBUTION RATES⁽¹⁾ - GENERAL

Valuation Year (June 30)	General Members (County & Courts)			General Members (Nurses & UAPD) ^{(3) (4) (5)}			General Members (SMCM&VCD) ⁽²⁾		
	Normal	UAAL	Total	Normal	UAAL	Total	Normal	UAAL	Total
2008	10.16%	9.81%	19.97%	Same as County General			8.55%	8.04%	16.59%
2009	10.11%	18.40%	28.51%	Same as County General			8.25%	15.09%	23.34%
2010	10.05%	16.35%	26.40%	Same as County General			11.70%	16.35%	28.05%
2011	9.71%	16.41%	26.12%	8.70%	16.41%	25.11%	11.97%	16.41%	28.38%
2012	9.98%	20.17%	30.15%	8.96%	20.17%	29.13%	11.68%	20.17%	31.85%
2013	9.74%	22.35%	32.09%	8.92%	22.35%	31.27%	11.70%	22.35%	34.05%
2014	10.12%	20.27%	30.39%	9.14%	20.21%	29.35%	11.72%	21.16%	32.88%

Valuation Year (June 30)	General Members (County)			General Members (Courts)			General Members (SMCM&VCD) ⁽²⁾		
	Normal	UAAL	Total	Normal	UAAL	Total	Normal	UAAL	Total
2015 ⁽⁶⁾	8.67%	18.37%	27.04%	9.04%	19.54%	28.58%	11.75%	19.54%	31.29%
2016 ⁽⁷⁾	8.91%	19.81%	28.72%	9.09%	21.30%	30.39%	12.02%	12.50%	24.52%
2017	9.58%	20.55%	30.13%	9.65%	22.58%	32.23%	12.32%	12.37%	24.69%

- (1) Contribution rates shown are those calculated in the corresponding actuarial valuation. In some cases, actual contributions were higher.
- (2) Beginning with the 2010 actuarial valuation, the Mosquito and Vector Control District (SMCM&VCD) adopted the same benefit formula and member contribution rates as Plans 1, 2 & 4 General County members (excluding cost sharing and COLA sharing on member rates).
- (3) Beginning with the 2011 actuarial valuation, Plans 1, 2, and 4 members of the California Nurses Association (CNA) contribute 25% of the cost of COLA, in addition to current member rates and cost sharing.
- (4) Beginning with the 2013 actuarial valuation, Plans 1, 2, and 4 members of the Union of American Physicians and Dentists (UAPD) contribute 25% of the cost of COLA, in addition to current member rates and cost sharing. In 2011 and 2012, these members contributed the same as County General members.
- (5) Beginning with the 2015 actuarial valuation, Plans 1, 2, and 4 members of the UAPD and the CNA contribute 50% of the cost of COLA, in addition to current member rates and cost sharing.
- (6) Effective with the first pay period after June 30, 2016, all members (except those with benefits negotiated under Court Interpreters and Board of Supervisors bargaining units, and SMCM&VCD members) contribute 50% of the cost of COLA, in addition to current member rates and cost sharing. Additionally, pick-up contributions are discontinued for members with benefits negotiated under the Probation and Detention Association bargaining unit.
- (7) Effective October 2016, all members (except those with benefits negotiated under Board of Supervisors bargaining unit, and SMCM&VCD members) contribute 50% of the cost of COLA, in addition to current member rates and cost sharing. This is reflected in 2016 values.

HISTORY OF EMPLOYER STATUTORY CONTRIBUTION RATES⁽¹⁾ - SAFETY AND PROBATION

Valuation Year (June 30)	Safety Member			Probation Members (excluding Managers) ⁽²⁾			Probation Members (Managers) ⁽³⁾		
	Normal	UAAL	Total	Normal	UAAL	Total	Normal	UAAL	Total
2008	19.32%	27.31%	46.63%	20.05%	12.81%	32.86%	Same as Probation (exclude Managers)		
2009	19.21%	51.83%	71.04%	19.92%	23.84%	43.76%	Same as Probation (exclude Managers)		
2010	19.01%	44.50%	63.51%	19.85%	21.62%	41.47%	Same as Probation (exclude Managers)		
2011	18.87%	41.75%	60.62%	19.50%	22.30%	41.80%	Same as Probation (exclude Managers)		
2012	19.05%	48.51%	67.56%	19.99%	26.71%	46.70%	Same as Probation (exclude Managers)		
2013	18.51%	50.33%	68.84%	18.33%	29.32%	47.65%	17.85%	29.32%	47.17%
2014	18.99%	46.48%	65.47%	18.92%	28.09%	47.01%	18.79%	28.09%	46.88%
2015 ⁽⁴⁾	15.14%	43.58%	58.72%	15.31%	26.77%	42.08%	17.23%	26.77%	44.00%
2016 ⁽⁵⁾	16.31%	44.25%	60.56%	15.94%	31.72%	47.66%	Same as Probation (exclude Managers)		
2017	17.28%	45.57%	62.85%	17.42%	32.87%	50.29%	Same as Probation (exclude Managers)		

- (1) Contribution rates shown are those calculated in the corresponding actuarial valuation. In some cases, actual contributions were higher.
- (2) Beginning with the 2012 actuarial valuation, Probation members (excluding Managers) contribute 25% of the cost of COLA, in addition to current member rates and cost sharing.
- (3) Beginning with the 2015 actuarial valuation, Probation members (Managers) contribute 50% of the cost of COLA, in addition to current member rates and cost sharing.
- (4) Effective with the first pay period after June 30, 2016, all members (except those with benefits negotiated under Court Interpreters and Board of Supervisors bargaining units, and SMCM&VCD members) contribute 50% of the cost of COLA, in addition to current member rates and cost sharing. Additionally, pick-up contributions are discontinued for members with benefits negotiated under the Probation and Detention Association bargaining unit.
- (5) Effective October 2016, all members (except those with benefits negotiated under Board of Supervisors bargaining unit, and SMCM&VCD members) contribute 50% of the cost of COLA, in addition to current member rates and cost sharing. This is reflected in 2016 values.

RATE OF SEPARATION FROM ACTIVE SERVICE

Years of Service	Other Terminations		Age	Disability		Death while Active		Service Retirement
	Ordinary	Vested		Ordinary	Service	Ordinary	Service	
General Plans 1, 2 & 4 Male Members								
0	0.1300	0.0000	20	0.0002	0.0004	0.0004	0.0000	0.0000
5	0.0222	0.0411	30	0.0003	0.0006	0.0005	0.0000	0.0000
10	0.0136	0.0274	40	0.0007	0.0012	0.0006	0.0000	0.0000
15	0.0086	0.0204	50	0.0011	0.0021	0.0017	0.0000	0.0300
20	0.0038	0.0152	60	0.0016	0.0029	0.0047	0.0000	0.1500
30 & Above	0.0000	0.0000	75	0.0000	0.0000	0.0000	0.0000	1.0000
General Plans 1, 2 & 4 Female Members								
0	0.1300	0.0000	20	0.0003	0.0005	0.0002	0.0000	0.0000
5	0.0245	0.0455	30	0.0003	0.0006	0.0002	0.0000	0.0000
10	0.0149	0.0301	40	0.0007	0.0014	0.0004	0.0000	0.0000
15	0.0095	0.0225	50	0.0016	0.0030	0.0011	0.0000	0.0300
20	0.0042	0.0168	60	0.0026	0.0048	0.0024	0.0000	0.1500
30 & Above	0.0000	0.0000	75	0.0000	0.0000	0.0000	0.0000	1.0000
General Plans 3 Male Members								
0	0.1300	0.0000	20	0.0000	0.0000	0.0004	0.0000	0.0000
5	0.0222	0.0411	30	0.0000	0.0000	0.0005	0.0000	0.0000
10	0.0136	0.0274	40	0.0000	0.0000	0.0006	0.0000	0.0000
15	0.0086	0.0204	50	0.0000	0.0000	0.0017	0.0000	0.0000
20	0.0038	0.0152	60	0.0000	0.0000	0.0047	0.0000	0.0300
30 & Above	0.0000	0.0000	75	0.0000	0.0000	0.0000	0.0000	1.0000
General Plans 3 Female Members								
0	0.1300	0.0000	20	0.0000	0.0000	0.0002	0.0000	0.0000
5	0.0245	0.0455	30	0.0000	0.0000	0.0002	0.0000	0.0000
10	0.0149	0.0301	40	0.0000	0.0000	0.0004	0.0000	0.0000
15	0.0095	0.0225	50	0.0000	0.0000	0.0011	0.0000	0.0000
20	0.0042	0.0168	60	0.0000	0.0000	0.0024	0.0000	0.0400
30 & Above	0.0000	0.0000	75	0.0000	0.0000	0.0000	0.0000	1.0000
General Plans 5 & 7 Male Members								
0	0.1300	0.0000	20	0.0002	0.0004	0.0004	0.0000	0.0000
5	0.0222	0.0411	30	0.0003	0.0006	0.0005	0.0000	0.0000
10	0.0136	0.0274	40	0.0007	0.0012	0.0006	0.0000	0.0000
15	0.0086	0.0204	50	0.0011	0.0021	0.0017	0.0000	0.0270
20	0.0038	0.0152	60	0.0016	0.0029	0.0047	0.0000	0.1350
30 & Above	0.0000	0.0000	75	0.0000	0.0000	0.0000	0.0000	1.0000
General Plans 5 & 7 Female Members								
0	0.1300	0.0000	20	0.0003	0.0005	0.0002	0.0000	0.0000
5	0.0245	0.0455	30	0.0003	0.0006	0.0002	0.0000	0.0000
10	0.0149	0.0301	40	0.0007	0.0014	0.0004	0.0000	0.0000
15	0.0095	0.0225	50	0.0016	0.0030	0.0011	0.0000	0.0270
20	0.0042	0.0168	60	0.0026	0.0048	0.0024	0.0000	0.1350
30 & Above	0.0000	0.0000	75	0.0000	0.0000	0.0000	0.0000	1.0000
Safety and Probation Plans 1, 2 & 4 Male Members								
0	0.0700	0.0000	20	0.0000	0.0015	0.0004	0.0010	0.0000
5	0.0084	0.0156	30	0.0000	0.0018	0.0005	0.0010	0.0000
10	0.0047	0.0116	40	0.0000	0.0028	0.0006	0.0010	0.0000
15	0.0018	0.0092	50	0.0000	0.0077	0.0017	0.0010	0.1500
20 & Above	0.0000	0.0000	65	0.0000	0.0000	0.0000	0.0000	1.0000
Safety and Probation Plans 1, 2 & 4 Female Members								
0	0.0700	0.0000	20	0.0000	0.0015	0.0002	0.0010	0.0000
5	0.0084	0.0156	30	0.0000	0.0018	0.0002	0.0010	0.0000
10	0.0047	0.0116	40	0.0000	0.0028	0.0004	0.0010	0.0000
15	0.0018	0.0092	50	0.0000	0.0077	0.0011	0.0010	0.1500
20 & Above	0.0000	0.0000	65	0.0000	0.0000	0.0000	0.0000	1.0000
Safety and Probation Plans 5, 6 & 7 Male Members								
0	0.0700	0.0000	20	0.0000	0.0015	0.0004	0.0010	0.0000
5	0.0084	0.0156	30	0.0000	0.0018	0.0005	0.0010	0.0000
10	0.0047	0.0116	40	0.0000	0.0028	0.0006	0.0010	0.0000
15	0.0018	0.0092	50	0.0000	0.0077	0.0017	0.0010	0.0500
20 & Above	0.0000	0.0000	65	0.0000	0.0000	0.0000	0.0000	1.0000
Safety and Probation Plans 5, 6 & 7 Female Members								
0	0.0700	0.0000	20	0.0000	0.0015	0.0002	0.0010	0.0000
5	0.0084	0.0156	30	0.0000	0.0018	0.0002	0.0010	0.0000
10	0.0047	0.0116	40	0.0000	0.0028	0.0004	0.0010	0.0000
15	0.0018	0.0092	50	0.0000	0.0077	0.0011	0.0010	0.0500
20 & Above	0.0000	0.0000	65	0.0000	0.0000	0.0000	0.0000	1.0000

DEMOGRAPHIC ACTIVITY OF RETIREES AND BENEFICIARIES

Fiscal Year Ended June 30,	Added to Rolls ⁽¹⁾		Removed from Rolls		Rolls end of year			
	No.	Annual Benefits (in Thousands)	No.	Annual Benefits (in Thousands)	No.	Total Retiree Payroll (in Thousands)	% Increase in Payroll	Average Monthly Benefits
2008	218	N/A	70	N/A	3,842	\$109,616	11.0	\$2,378
2009	159	\$12,717	66	\$3,281	3,935	119,052	8.6	2,521
2010	163	9,076	96	3,240	4,002	124,888	4.9	2,601
2011 ⁽²⁾	209	12,703	64	2,916	4,147	134,675	7.8	2,706
2012	218	14,379	90	4,209	4,275	144,845	7.6	2,823
2013	186	13,024	63	3,095	4,398	154,774	6.9	2,933
2014	203	12,474	83	3,479	4,518	163,769	5.8	3,021
2015	213	16,290	93	4,179	4,638	175,880	7.4	3,160
2016	233	15,347	123	5,030	4,748	186,197	5.9	3,268
2017	310	16,738	102	3,867	4,956	199,068	6.9	3,347

N/A - not applicable

⁽¹⁾ Amount added to rolls includes COLAs granted in year to continuing retirees and beneficiaries.

⁽²⁾ Revised figures from the June 30, 2011 valuation.

ACTUARIAL ANALYSIS OF FINANCIAL EXPERIENCE

(Dollars in Thousands)

Summary of (Gains) / Losses	Change In Liability				
	2017	2016	2015	2014	2013
Unfunded Liability as of July 1	\$737,570	\$702,236	\$803,855	\$954,111	\$962,282
Expected Change in Unfunded Actuarial Accrued Liability	(110,404)	(96,454)	(76,018)	(88,525)	(34,535)
Salary (Gain) / Loss	27,685	24,707	39,129	(15,884)	(59,411)
Retiree COLA more / (less) than Expected	7,050	(6,275)	3,648	(15,603)	(8,606)
Asset (Gain) / Loss	(28,286)	27,821	(74,068)	(88,035)	93,999
Change due to Assumption Changes	133,221	89,364	-	59,345	-
Miscellaneous Experience	(23,703)	(3,829)	5,690	(1,554)	382
Unfunded Liability as of June 30	\$743,133	\$737,570	\$702,236	\$803,855	\$954,111

SUMMARY OF ACTIVE MEMBER VALUATION DATA

Valuation Date As of June 30,	No. of Members	Annual Salary	Average Annual Salary	% Change Average Salary	
2008	General	4,743	\$353,518,525	\$74,535	2.6%
	Safety	432	46,326,906	107,238	4.7%
	Probation	325	24,741,003	76,126	2.8%
	Total	5,500	\$424,586,434	\$77,198	2.8%
2009	General	4,777	\$370,760,830	\$77,614	4.1%
	Safety	436	48,120,081	110,367	2.9%
	Probation	330	26,270,802	79,608	4.6%
	Total	5,543	\$445,151,713	\$80,309	4.0%
2010	General	4,609	\$363,305,740	\$78,825	1.6%
	Safety	425	48,576,912	114,299	3.6%
	Probation	313	25,247,595	80,663	1.3%
	Total	5,347	\$437,130,247	\$81,752	1.8%
2011	General	4,494	\$355,876,715	\$79,189	0.5%
	Safety	446	52,073,940	116,758	2.2%
	Probation	305	24,591,392	80,628	0.0%
	Total	5,245	\$432,542,047	\$82,468	0.9%
2012	General	4,361	\$351,965,689	\$80,708	1.9%
	Safety	435	51,129,267	117,539	0.7%
	Probation	299	24,554,583	82,122	1.9%
	Total	5,095	\$427,649,539	\$83,935	1.8%
2013	General	4,173	\$338,595,633	\$81,140	0.5%
	Safety	452	52,233,510	115,561	-1.7%
	Probation	292	23,722,165	81,240	-1.1%
	Total	4,917	\$414,551,308	\$84,310	0.4%
2014	General	4,272	\$352,918,558	\$82,612	1.8%
	Safety	452	52,974,475	117,200	1.4%
	Probation	280	23,514,343	83,980	3.4%
	Total	5,004	\$429,407,376	\$85,813	1.8%
2015	General	4,334	\$382,303,295	\$88,210	6.8%
	Safety	479	55,917,864	116,739	-0.4%
	Probation	282	24,418,977	86,592	3.1%
	Total	5,095	\$462,640,136	\$90,803	5.8%
2016	General	4,421	\$408,191,518	\$92,330	4.7%
	Safety	495	61,564,028	124,372	6.5%
	Probation	271	24,034,819	88,689	2.4%
	Total	5,187	\$493,790,365	\$95,198	4.8%
2017	General	4,560	\$430,613,886	\$94,433	2.3%
	Safety	503	65,105,116	129,434	4.1%
	Probation	274	26,503,623	96,729	9.1%
	Total	5,337	\$522,222,625	\$97,849	2.8%

SCHEDULE OF AVERAGE MONTHLY SALARY OF ACTIVE MEMBERS

(By Plan and Membership Type)

		Fiscal Year				
		2017	2016	2015	2014	2013
GENERAL	Plan 1	\$11,305	\$9,945	\$9,235	\$8,617	\$8,104
	Plan 2	8,994	8,636	8,186	7,584	7,355
	Plan 3	7,484	7,173	6,747	6,300	6,254
	Plan 4	8,134	7,807	7,386	6,873	6,662
	Plan 5	8,980	8,485	7,735	6,912	6,418
	Plan 7	6,737	6,714	6,315	5,721	5,433
	Average Monthly Salary	7,869	7,694	7,351	6,884	6,762
SAFETY	Plan 1	14,434	15,810	14,712	14,091	13,185
	Plan 2	13,528	12,505	11,545	11,191	10,935
	Plan 4	11,381	10,729	9,919	9,581	9,402
	Plan 5	10,544	9,940	9,145	8,958	8,699
	Plan 6	0	16,793	16,010	14,381	12,374
	Plan 7	8,356	7,538	6,701	7,011	6,695
	Average Monthly Salary	10,786	10,364	9,728	9,767	9,630
PROBATION	Plan 1	7,722	7,261	7,038	6,874	6,618
	Plan 2	9,069	8,349	8,012	7,699	7,445
	Plan 4	8,270	7,454	7,267	6,922	6,622
	Plan 5	7,612	6,429	6,106	5,916	5,242
	Plan 6	7,347	6,259	5,739	5,216	4,808
	Plan 7	6,121	5,962	5,684	5,807	7,742
	Average Monthly Salary	8,061	7,391	7,216	6,998	6,770
Average Monthly Salary (All Plans)		\$8,154	\$7,933	\$7,567	\$7,151	\$7,026

PARTICIPATING EMPLOYERS AND ACTIVE MEMBERS

June 30, 2017

	2017	2016	2015	2014	2013
COUNTY OF SAN MATEO					
General Members	4,303	4,170	4,092	4,014	3,906
Safety Members	503	495	479	452	452
Probation Members	274	271	282	280	292
Subtotal	5,080	4,936	4,853	4,746	4,650
SAN MATEO COUNTY MOSQUITO AND VECTOR CONTROL DISTRICT					
General Members	20	20	20	19	18
SAN MATEO COUNTY SUPERIOR COURT					
General Members	237	231	222	239	249
Total Active Membership	5,337	5,187	5,095	5,004	4,917

SUMMARY OF RETIRED AND INACTIVE BENEFITS

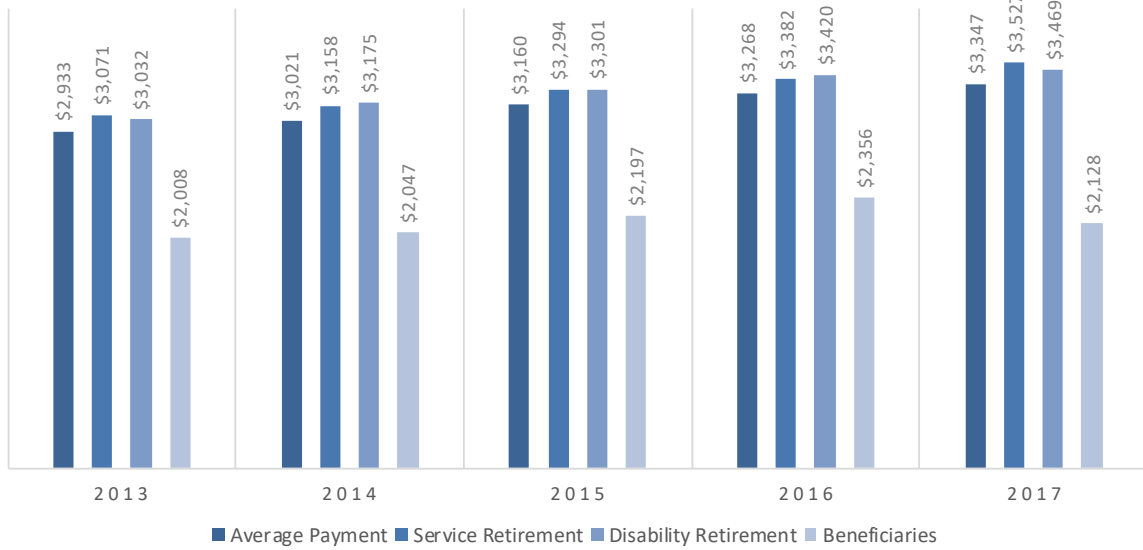
Last Five Fiscal Years

RETIRED MEMBERS	2017	2016	2015	2014	2013
Service Retirement					
Number (as of June 30)	3,869	3,749	3,628	3,525	3,446
Annual Allowance:					
Basic Only	\$ 122,893,000	\$ 119,212,000	\$ 112,557,000	\$ 105,556,000	\$ 100,411,000
COLA	33,352,000	32,949,000	30,835,000	28,027,000	26,594,000
Total	\$ 156,245,000	\$ 152,161,000	\$ 143,392,000	\$ 133,583,000	\$ 127,005,000
Average Monthly Payment	\$3,527	\$3,382	\$3,294	\$3,158	\$3,071
Disability Retirement					
Number (as of June 30)	469	454	442	428	393
Annual Allowance:					
Basic Only	\$ 14,634,000	\$ 14,040,000	\$ 13,303,000	\$ 12,508,000	\$ 10,733,000
COLA	4,657,000	4,590,000	4,208,000	3,800,000	3,564,000
Total	\$ 19,291,000	\$ 18,630,000	\$ 17,511,000	\$ 16,308,000	\$ 14,297,000
Average Monthly Payment	\$3,469	\$3,420	\$3,301	\$3,175	\$3,032
Beneficiaries					
Number (as of June 30)	618	545	568	565	559
Annual Allowance:					
Basic Only	\$ 8,669,000	\$ 8,944,000	\$ 8,610,000	\$ 7,986,000	\$ 7,668,000
COLA	6,245,000	6,462,000	6,367,000	5,892,000	5,804,000
Total	\$ 14,914,000	\$ 15,406,000	\$ 14,977,000	\$ 13,878,000	\$ 13,472,000
Average Monthly Payment	\$2,128	\$2,356	\$2,197	\$2,047	\$2,008
TOTAL RETIRED MEMBERS					
Number (as of June 30)	4,956	4,748	4,638	4,518	4,398
Annual Allowance:					
Basic Only	\$ 146,196,000	\$ 142,196,000	\$ 134,470,000	\$ 126,050,000	\$ 118,812,000
COLA	44,254,000	44,001,000	41,410,000	37,719,000	35,962,000
Total	\$ 190,450,000	\$ 186,197,000	\$ 175,880,000	\$ 163,769,000	\$ 154,774,000
Average Monthly Payment	\$3,347	\$3,268	\$3,160	\$3,021	\$2,933
INACTIVE MEMBERS (as of June 30)	1,487	1,486	1,384	1,304	1,306

Note: Beginning in 2017, the annual benefit amounts shown above are provided by SamCERA and reflect actual benefit payments made during the year. The number of retired members and average payment amounts are calculated by Milliman as of the valuation date.

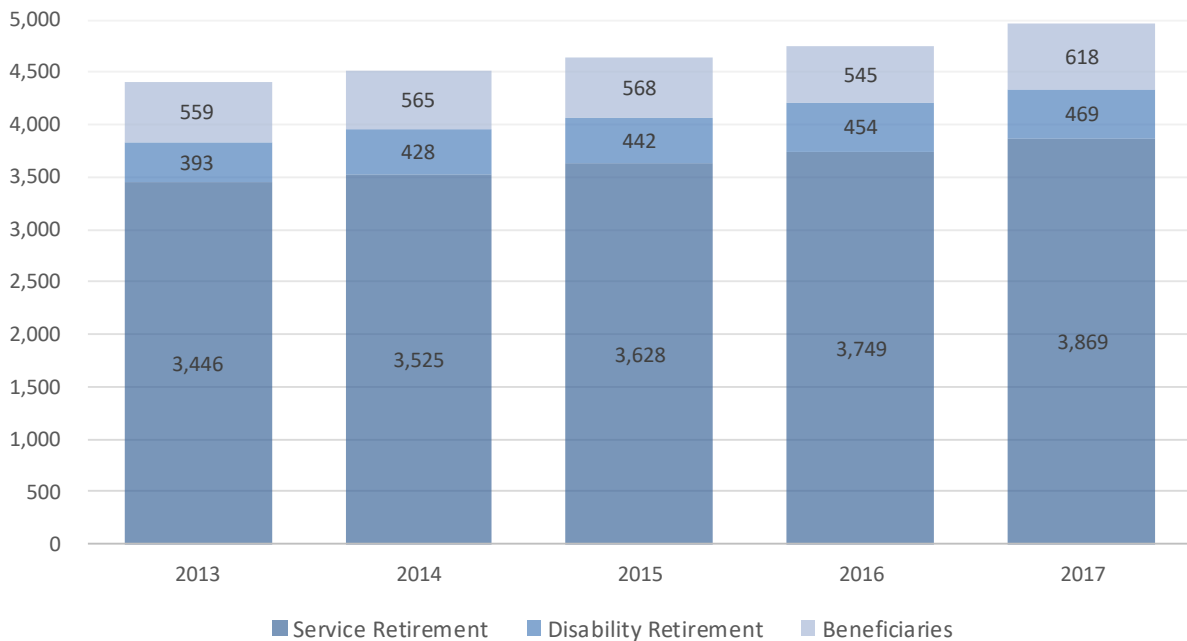
AVERAGE MONTHLY RETIREE BENEFIT PAYMENT

For the Fiscal Years Ended June 30



NUMBER OF RETIREES BY CATEGORY

As of June 30



This page intentionally left blank.



STATISTICAL SECTION



THE STATISTICAL SECTION

Introduction

This section provides detailed information for a more thorough understanding of the financial statements, note disclosures, and required supplementary information. Most of the information in this section is compiled by SamCERA's actuary based on the information provided by SamCERA.

The information presented in this section normally covers ten years of data. Certain schedules may have data less than ten years when the ten-years information is unavailable.

CHANGES IN FIDUCIARY NET POSITION

For the Fiscal Years Ended June 30 (Dollars in Thousands)

	2017	2016	2015	2014	2013
Additions					
Employer Contributions	\$198,727	\$191,094	\$180,704	\$202,877	\$144,308
Member Contributions	62,160	56,069	48,012	46,594	55,408
Total Contributions	260,887	247,163	228,716	249,471	199,716
Investment Income, net of Expenses	436,603	24,112	111,320	482,050	326,983
Security Lending Income	46	278	310	435	622
Miscellaneous Additions	27	4,910	0	179	160
Total Additions	697,563	276,463	340,346	732,135	527,481
Deductions					
Retiree and Other Benefits	190,364	179,498	168,109	159,342	149,266
Member Refunds	2,876	3,366	3,357	3,214	5,750
Administrative Expenses	5,983	5,962	5,350	4,914	4,260
Information Technology Expenses	996	714	629	731	654
Other Expenses	30	11	119	65	29
Total Deductions	200,249	189,551	177,564	168,266	159,959
Changes in Pension Plan Net Assets	\$497,314	\$86,912	\$162,782	\$563,869	\$367,522

CHANGES IN FIDUCIARY NET POSITION (CONTINUED)

For the Fiscal Years Ended June 30 (Dollars in Thousands)

	2012	2011	2010	2009	2008
Additions					
Employer Contributions	\$150,950	\$150,475	\$106,265	\$106,123	\$105,340
Member Contributions	49,687	49,013	50,319	50,372	60,111
Total Contributions	200,637	199,488	156,584	156,495	165,451
Investment Income, net of expenses	(11,024)	437,654	195,412	(457,309)	(177,923)
Security Lending Income	721	530	743	1,631	1,699
Miscellaneous Additions	29	73	41	(16)	181
Total Additions	190,363	637,745	352,780	(299,199)	(10,592)
Deductions					
Retiree and Other Benefits	139,208	129,835	122,141	113,991	103,970
Member Refunds	3,627	2,474	2,736	2,795	3,075
Administrative Expenses	4,675	3,547	3,373	3,287	3,231
Information Technology Expenses ⁽¹⁾	325	0	0	0	0
Other Expenses	0	10	33	67	8
Total Deductions	147,835	135,866	128,283	120,140	110,284
Changes in Pension Plan Net Assets	\$42,528	\$501,879	\$224,497	(\$419,339)	(\$120,876)

⁽¹⁾ Prior to fiscal year 2012, information technology expenses were included in administrative expenses. Since fiscal year 2012, information technology expenses are detached from administrative expenses and are separately accounted for.

SCHEDULE OF ADDITIONS TO FIDUCIARY NET POSITION BY SOURCE

(Dollars in Thousands)

Fiscal Year Ended June 30	Employee Contributions	Employer Contributions	Investment Income/(Loss)	Other	Total Additions
2008	\$60,111	\$105,340	\$(177,923)	\$1,880	\$(10,592)
2009	50,372	106,123	(457,309)	1,615	(299,199)
2010	50,319	106,265	195,412	784	352,780
2011	49,013	150,475	437,654	603	637,745
2012	49,687	150,950	(11,024)	750	190,363
2013	55,408	144,308	326,983	782	527,481
2014	46,594	202,877	482,050	614	732,135
2015	48,012	180,704	111,320	310	340,346
2016	56,069	191,094	24,112	5,188	276,463
2017	62,160	198,727	436,603	73	697,563

SCHEDULE OF DEDUCTIONS FROM FIDUCIARY NET POSITION BY TYPE

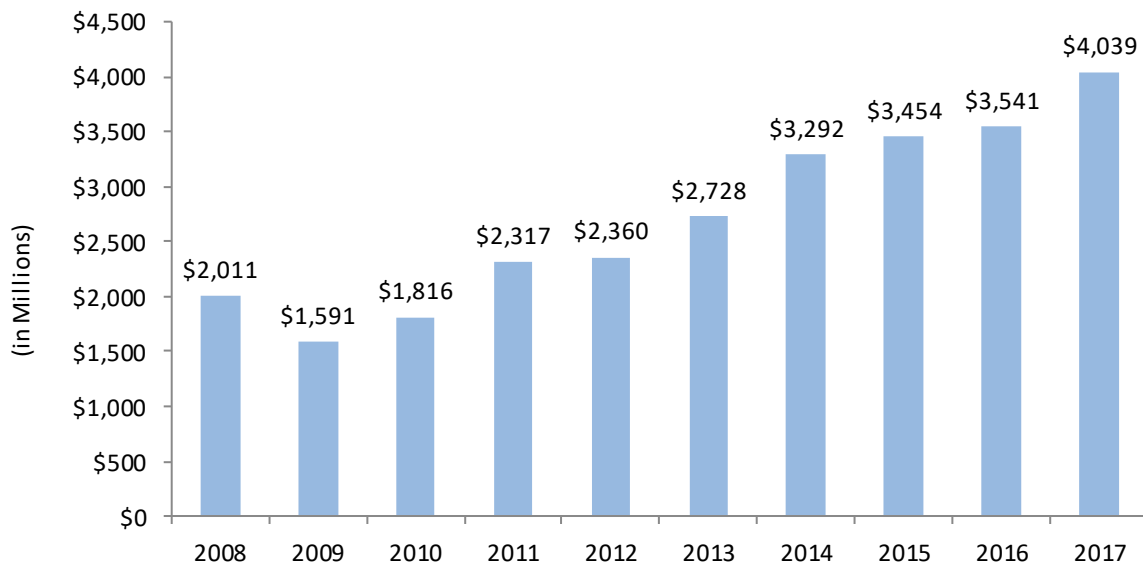
(Dollars in Thousands)

Fiscal Year ended June 30	Retirement and Other Benefits	Member Refunds	Administrative Expenses ⁽¹⁾	Information Technology Expenses	Other Expenses	Total Deductions
2008	\$103,970	\$3,075	\$3,231	\$0	\$8	\$110,284
2009	113,991	2,795	3,287	0	67	120,140
2010	122,141	2,736	3,373	0	33	128,283
2011	129,835	2,474	3,547	0	10	135,866
2012	139,208	3,627	4,675	325	0	147,835
2013	149,266	5,750	4,260	654	29	159,959
2014	159,342	3,214	4,914	731	65	168,266
2015	168,109	3,357	5,350	629	119	177,564
2016	179,498	3,366	5,962	714	11	189,551
2017	190,364	2,876	5,983	996	30	200,249

⁽¹⁾ Administrative expenses related to investments were classified as investment expenses in fiscal years 2008-2011. Effective June 30, 2012, these expenses are reported as Administrative Expenses.

TOTAL FIDUCIARY NET POSITION

June 30



SCHEDULE OF EMPLOYER CONTRIBUTIONS

(Dollars in Thousands)

Fiscal Year Ended June 30	Actuarially Required Contributions (ARC)	Actual Contribution Received ⁽¹⁾	Contributions Made As a % of ARC
2008	\$105,340	\$105,340	100%
2009	106,123	106,123	100%
2010	106,265	106,265	100%
2011	150,475	150,475	100%
2012	139,407	150,950	108%
2013	131,448	144,308	110%
2014	152,877	202,877	133%
2015	169,814	180,704	106%
2016	170,046	191,094	112%
2017	164,877	198,727 ⁽²⁾	121%

⁽¹⁾ The County of San Mateo made additional contributions to accelerate the pay down of Unfunded Actuarial Accrued Liability (UAAL) since fiscal year 2012.

⁽²⁾ In fiscal year 2016-17, the County and the San Mateo County Mosquito and Vector Control District contributed supplemental contributions of \$33.6 million and \$0.25 million, respectively, to accelerate the pay down of UAAL.

SUMMARY OF RETIRED BENEFITS, REFUNDS, AND INACTIVE MEMBERS

	Fiscal Year				
	2017	2016	2015	2014	2013
RETIRED MEMBERS					
Service Retirement					
Number (as of June 30)	3,869	3,749	3,628	3,525	3,446
Annual Benefit:					
Basic Only	\$ 122,893,000	\$ 119,212,000	\$ 112,557,000	\$ 105,556,000	\$ 100,411,000
COLA	33,352,000	32,949,000	30,835,000	28,027,000	26,594,000
Total	<u>\$ 156,245,000</u>	<u>\$ 152,161,000</u>	<u>\$ 143,392,000</u>	<u>\$ 133,583,000</u>	<u>\$ 127,005,000</u>
Average Monthly Benefit	\$ 3,527	\$ 3,382	\$ 3,294	\$ 3,158	\$ 3,071
Disability Retirement					
Number (as of June 30)	469	454	442	428	393
Annual Benefit:					
Basic Only	\$ 14,634,000	\$ 14,040,000	\$ 13,303,000	\$ 12,508,000	\$ 10,733,000
COLA	4,657,000	4,590,000	4,208,000	3,800,000	3,564,000
Total	<u>\$ 19,291,000</u>	<u>\$ 18,630,000</u>	<u>\$ 17,511,000</u>	<u>\$ 16,308,000</u>	<u>\$ 14,297,000</u>
Average Monthly Benefit	\$ 3,469	\$ 3,420	\$ 3,301	\$ 3,175	\$ 3,032
Beneficiaries					
Number (as of June 30)	618	545	568	565	559
Annual Benefit:					
Basic Only	\$ 8,669,000	\$ 8,944,000	\$ 8,610,000	\$ 7,986,000	\$ 7,668,000
COLA	6,245,000	6,462,000	6,367,000	5,892,000	5,804,000
Total	<u>\$ 14,914,000</u>	<u>\$ 15,406,000</u>	<u>\$ 14,977,000</u>	<u>\$ 13,878,000</u>	<u>\$ 13,472,000</u>
Average Monthly Benefit	\$ 2,128	\$ 2,356	\$ 2,197	\$ 2,047	\$ 2,008
TOTAL RETIRED MEMBERS					
Number (as of June 30)	4,956	4,748	4,638	4,518	4,398
Annual Benefit:					
Basic Only	\$ 146,196,000	\$ 142,196,000	\$ 134,470,000	\$ 126,050,000	\$ 118,812,000
COLA	44,254,000	44,001,000	41,410,000	37,719,000	35,962,000
Total	<u>\$ 190,450,000</u>	<u>\$ 186,197,000</u>	<u>\$ 175,880,000</u>	<u>\$ 163,769,000</u>	<u>\$ 154,774,000</u>
Average Monthly Benefit	\$ 3,347	\$ 3,268	\$ 3,160	\$ 3,021	\$ 2,933
REFUND ⁽¹⁾					
General	2,511,145	\$ 2,991,126	\$ 3,011,758	\$ 3,396,690	\$ 5,161,430
Safety	364,742	375,311	345,253	155,265	588,346
Total	<u>\$ 2,875,887</u>	<u>\$ 3,366,437</u>	<u>\$ 3,357,011</u>	<u>\$ 3,551,955</u>	<u>\$ 5,749,776</u>
INACTIVE MEMBERS (as of June 30)	1,487	1,486	1,384	1,304	1,306

Note: Beginning in fiscal year 2017, the annual benefit amounts shown above are provided by SamCERA and reflect actual benefit payments made during the year. The number of retired members and average payment amounts are calculated by Milliman as of the valuation date.

⁽¹⁾ Refund by type is not available prior to fiscal year 2009-10.

SUMMARY OF RETIRED BENEFITS, REFUNDS, AND INACTIVE MEMBERS (CONTINUED)

	Fiscal Year				
	2012	2011	2010	2009	2008
RETIRED MEMBERS					
Service Retirement					
Number (as of June 30)	3,355	3,242	3,108	3,032	2,958
Annual Benefit:					
Basic Only	\$ 94,234,000	\$ 87,254,000	\$ 79,007,000	\$ 73,038,000	\$ 66,704,000
COLA	24,748,000	23,212,000	22,542,000	22,964,000	21,289,000
Total	<u>\$ 118,982,000</u>	<u>\$ 110,466,000</u>	<u>\$ 101,549,000</u>	<u>\$ 96,002,000</u>	<u>\$ 87,993,000</u>
Average Monthly Benefit	\$ 2,955	\$ 2,839	\$ 2,723	\$ 2,639	\$ 2,479
Disability Retirement					
Number (as of June 30)	374	370	365	369	361
Annual Benefit:					
Basic Only	\$ 9,909,000	\$ 9,414,000	\$ 8,988,000	\$ 8,722,000	\$ 8,214,000
COLA	3,225,000	3,005,000	2,926,000	3,070,000	2,847,000
Total	<u>\$ 13,134,000</u>	<u>\$ 12,419,000</u>	<u>\$ 11,914,000</u>	<u>\$ 11,792,000</u>	<u>\$ 11,061,000</u>
Average Monthly Benefit	\$ 2,927	\$ 2,797	\$ 2,720	\$ 2,663	\$ 2,553
Beneficiaries					
Number (as of June 30)	546	535	529	534	523
Annual Benefit:					
Basic Only	\$ 7,235,000	\$ 6,672,000	\$ 6,309,000	\$ 6,052,000	\$ 5,757,000
COLA	5,494,000	5,118,000	5,116,000	5,206,000	4,805,000
Total	<u>\$ 12,729,000</u>	<u>\$ 11,790,000</u>	<u>\$ 11,425,000</u>	<u>\$ 11,258,000</u>	<u>\$ 10,562,000</u>
Average Monthly Benefit	\$ 1,943	\$ 1,836	\$ 1,800	\$ 1,757	\$ 1,683
TOTAL RETIRED MEMBERS					
Number (as of June 30)	4,275	4,147	4,002	3,935	3,842
Annual Benefit:					
Basic Only	\$ 111,378,000	\$ 103,340,000	\$ 94,304,000	\$ 87,812,000	\$ 80,675,000
COLA	33,467,000	31,335,000	30,584,000	31,240,000	28,941,000
Total	<u>\$ 144,845,000</u>	<u>\$ 134,675,000</u>	<u>\$ 124,888,000</u>	<u>\$ 119,052,000</u>	<u>\$ 109,616,000</u>
Average Monthly Benefit	\$ 2,823	\$ 2,706	\$ 2,601	\$ 2,521	\$ 2,378
REFUND ⁽¹⁾					
General	\$ 3,399,163	\$ 2,379,790	2,623,439	N/A	N/A
Safety	228,329	94,655	112,586	N/A	N/A
Total	<u>\$ 3,627,492</u>	<u>\$ 2,474,445</u>	<u>\$ 2,736,025</u>	<u>\$ -</u>	<u>\$ -</u>
INACTIVE MEMBERS (as of June 30)	1,212	1,190	1,207	1,230	1,225

SCHEDULE OF AVERAGE PENSION BENEFIT PAYMENTS

Retirement Date	Years of Service Credit						
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+
7/1/2016 - 6/30/2017							
Retirees - Service and Disabilities							
Average Monthly Gross Benefit	\$388	\$1,429	\$2,264	\$3,155	\$5,501	\$6,533	\$6,902
Average Final Compensation	\$6,313	\$6,428	\$7,311	\$7,237	\$9,197	\$9,440	\$8,334
Number of Retirees	13	35	47	37	37	32	33
Beneficiaries							
Average Monthly Gross Benefit	\$1,197	\$574	\$1,665	\$2,916	\$1,299	N/A	N/A
Average Final Compensation	\$2,152	\$3,564	\$2,251	\$3,852	\$3,474	N/A	N/A
Number of Beneficiaries	8	6	5	1	1	0	0
7/1/2015 - 6/30/2016							
Retirees - Service and Disabilities							
Average Monthly Gross Benefit	\$350	\$1,536	\$2,112	\$3,210	\$4,563	\$5,841	\$7,990
Average Final Compensation	\$4,081	\$6,646	\$6,410	\$9,032	\$7,964	\$8,548	\$9,322
Number of Retirees	16	47	56	54	26	28	21
Beneficiaries							
Average Monthly Gross Benefit	\$1,732	\$1,038	\$1,368	\$1,361	\$3,304	\$3,036	\$3,554
Average Final Compensation	N/A	\$3,434	\$4,173	\$3,756	\$5,429	\$4,972	\$5,372
Number of Beneficiaries	14	9	5	2	4	7	7
7/1/2014 - 6/30/2015							
Retirees - Service and Disabilities							
Average Monthly Gross Benefit	\$564	\$1,479	\$2,538	\$3,755	\$4,264	\$7,245	\$6,140
Average Final Compensation	\$4,191	\$6,262	\$7,158	\$8,074	\$7,548	\$9,423	\$7,752
Number of Retirees	21	35	52	35	20	38	31
Beneficiaries							
Average Monthly Gross Benefit	\$1,753	\$1,193	\$1,120	\$2,380	\$2,147	\$4,633	\$6,036
Average Final Compensation	N/A	\$3,587	\$3,867	\$6,994	\$4,521	\$8,971	\$8,071
Number of Beneficiaries	11	3	3	6	5	5	6
7/1/2013 - 6/30/2014							
Retirees - Service and Disabilities							
Average Monthly Gross Benefit	\$1,608	\$1,758	\$2,384	\$3,351	\$4,613	\$6,349	\$6,713
Average Final Compensation	\$6,920	\$6,729	\$6,570	\$7,614	\$7,740	\$9,292	\$7,528
Number of Retirees	16	61	49	40	32	13	18
Beneficiaries							
Average Monthly Gross Benefit	\$891	\$660	\$1,898	\$946	\$4,457	\$3,550	\$6,239
Average Final Compensation	N/A	\$6,305	\$5,433	\$2,906	\$7,872	\$5,504	\$6,611
Number of Beneficiaries	10	3	6	5	3	2	2
7/1/2012 - 6/30/2013							
Retirees - Service and Disabilities							
Average Monthly Gross Benefit	\$643	\$1,330	\$2,513	\$3,516	\$5,226	\$6,672	\$7,309
Average Final Compensation	\$5,234	\$5,831	\$7,321	\$7,344	\$8,135	\$8,458	\$7,818
Number of Retirees	16	39	59	21	30	24	20
Beneficiaries							
Average Monthly Gross Benefit	\$1,434	\$1,747	\$1,494	\$1,500	\$1,321	\$5,182	\$4,166
Average Final Compensation	\$589	\$5,140	\$5,255	\$4,536	\$3,446	\$7,516	\$6,039
Number of Beneficiaries	16	2	6	4	3	1	4

SCHEDULE OF AVERAGE PENSION BENEFIT PAYMENTS (CONTINUED)

Retirement Date	Years of Service Credit						
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+
7/1/2011 - 6/30/2012							
Retirees - Service and Disabilities							
Average Monthly Gross Benefit	\$897	\$1,427	\$2,328	\$3,597	\$5,175	\$5,611	\$7,527
Average Final Compensation	\$4,235	\$5,896	\$6,667	\$7,228	\$7,812	\$7,344	\$7,763
Number of Retires	19	37	47	25	47	32	29
Beneficiaries							
Average Monthly Gross Benefit	\$1,789	\$736	\$2,382	\$2,390	\$1,658	\$4,347	\$4,878
Average Final Compensation	N/A	\$3,913	\$5,200	\$5,818	\$4,338	\$6,102	\$6,464
Number of Beneficiaries	16	1	5	4	5	3	4
7/1/2010 - 6/30/2011							
Retirees - Service and Disabilities							
Average Monthly Gross Benefit	\$577	\$1,190	\$2,112	\$3,770	\$4,881	\$6,452	\$8,122
Average Final Compensation	\$3,207	\$6,268	\$5,895	\$7,761	\$7,562	\$8,466	\$8,322
Number of Retires	16	25	52	29	52	26	25
Beneficiaries							
Average Monthly Gross Benefit	\$1,190	\$1,407	\$1,333	\$2,101	\$2,082	\$1,951	\$8,657
Average Final Compensation	N/A	\$6,549	\$4,186	\$5,178	\$5,772	\$4,457	\$7,765
Number of Beneficiaries	12	1	6	3	6	1	1
7/1/2009 - 6/30/2010							
Retirees - Service and Disabilities							
Average Monthly Gross Benefit	\$875	\$1,281	\$2,107	\$3,932	\$5,057	\$6,175	\$7,543
Average Final Compensation	\$2,619	\$5,480	\$5,803	\$7,587	\$7,827	\$7,818	\$8,081
Number of Retires	9	35	33	16	41	19	24
Beneficiaries							
Average Monthly Gross Benefit	\$712	\$2,679	\$1,485	\$1,170	\$2,304	\$3,992	\$4,413
Average Final Compensation	N/A	\$7,316	\$5,457	\$3,874	\$5,546	\$5,457	\$5,166
Number of Beneficiaries	8	4	2	2	3	1	4
7/1/2008 - 6/30/2009							
Retirees - Service and Disabilities							
Average Monthly Gross Benefit	\$1,538	\$1,412	\$2,293	\$3,028	\$5,211	\$6,372	\$9,020
Average Final Compensation	\$3,654	\$4,685	\$6,456	\$6,882	\$7,838	\$7,241	\$9,052
Number of Retires	7	32	27	28	22	16	32
Beneficiaries							
Average Monthly Gross Benefit	\$1,854	\$913	\$1,357	\$1,003	\$1,590	\$4,130	\$3,635
Average Final Compensation	N/A	\$2,808	\$5,068	\$3,840	\$6,395	\$6,099	\$4,661
Number of Beneficiaries	12	4	6	3	3	1	1
7/1/2007 - 6/30/2008							
Retirees - Service and Disabilities							
Average Monthly Gross Benefit	\$557	\$1,672	\$2,422	\$3,602	\$3,924	\$5,306	\$7,640
Average Final Compensation	\$5,406	\$5,710	\$5,973	\$7,012	\$6,179	\$6,596	\$7,641
Number of Retires	12	28	22	25	47	35	38
Beneficiaries							
Average Monthly Gross Benefit	\$2,167	\$1,080	\$1,960	\$3,279	\$1,474	\$4,478	\$5,564
Average Final Compensation	N/A	\$4,433	\$7,617	\$6,701	\$5,149	\$8,315	\$7,713
Number of Beneficiaries	13	2	1	2	3	4	2

SCHEDULE OF AVERAGE MONTHLY SALARY OF ACTIVE MEMBERS

(by Plan and Membership Type)

	Fiscal Year				
	2017	2016	2015	2014	2013
General Plan 1	\$11,305	\$9,945	\$9,235	\$8,617	\$8,104
General Plan 2	8,994	8,636	8,186	7,584	7,355
General Plan 3	7,484	7,173	6,747	6,300	6,254
General Plan 4	8,134	7,807	7,386	6,873	6,662
General Plan 5	8,980	8,485	7,735	6,912	6,418
General Plan 7	6,737	6,714	6,315	5,721	5,433
Average Monthly Salary for General Plan	7,869	7,694	7,351	6,884	6,762
Safety Plan 1	14,434	15,810	14,712	14,091	13,185
Safety Plan 2	13,528	12,505	11,545	11,191	10,935
Safety Plan 4	11,381	10,729	9,919	9,581	9,402
Safety Plan 5	10,544	9,940	9,145	8,958	8,699
Safety Plan 6	0	16,793	16,010	14,381	12,374
Safety Plan 7	8,356	7,538	6,701	7,011	6,695
Average Monthly Salary for Safety Plan	10,786	10,364	9,728	9,767	9,630
Probation 1	7,722	7,261	7,038	6,874	6,618
Probation 2	9,069	8,349	8,012	7,699	7,445
Probation 4	8,270	7,454	7,267	6,922	6,622
Probation 5	7,612	6,429	6,106	5,916	5,242
Probation 6	7,347	6,259	5,739	5,216	4,808
Probation 7	6,121	5,962	5,684	5,807	7,742
Average Monthly Salary for General Plan	8,061	7,391	7,216	6,998	6,770
Average Monthly Salary for All Plans	8,154	7,933	7,567	7,151	7,026

SCHEDULE OF AVERAGE MONTHLY SALARY OF ACTIVE MEMBERS (CONTINUED)

(by Plan and Membership Type)

	Fiscal Year				
	2012	2011	2010	2009	2008
General Plan 1	\$7,843	\$7,630	\$7,543	\$7,534	\$7,252
General Plan 2	7,340	7,208	7,193	7,120	6,872
General Plan 3	6,138	5,968	5,818	5,791	5,619
General Plan 4	6,580	6,398	6,348	6,212	5,914
General Plan 5	5,799	N/A	N/A	N/A	N/A
General Plan 7	N/A	N/A	N/A	N/A	N/A
Average Monthly Salary for General Plan	6,726	6,599	6,569	6,468	6,211
Safety Plan 1	12,624	12,073	11,578	10,889	11,113
Safety Plan 2	10,892	10,789	10,548	10,135	9,612
Safety Plan 4	9,351	9,230	8,931	8,610	8,349
Safety Plan 5	9,667	N/A	N/A	N/A	N/A
Safety Plan 6	N/A	N/A	N/A	N/A	N/A
Safety Plan 7	N/A	N/A	N/A	N/A	N/A
Average Monthly Salary for Safety Plan	9,795	9,730	9,525	9,197	8,937
Probation 1	6,618	7,533	8,922	9,751	9,791
Probation 2	7,454	7,349	7,393	7,341	6,960
Probation 4	6,686	6,505	6,456	6,291	5,978
Probation 5	4,949	N/A	N/A	N/A	N/A
Probation 6	5,239	N/A	N/A	N/A	N/A
Probation 7	5,239	N/A	N/A	N/A	N/A
Average Monthly Salary for General Plan	6,844	6,719	6,722	6,634	6,344
Average Monthly Salary for All Plans	6,995	6,872	6,813	6,692	6,433

SCHEDULE OF PARTICIPATING EMPLOYERS AND ACTIVE MEMBERS

June 30

	2017	2016	2015	2014	2013
COUNTY OF SAN MATEO					
General Members	4,303	4,170	4,092	4,014	3,906
Safety Members	503	495	479	452	452
Probation Members	274	271	282	280	292
Subtotal	5,080	4,936	4,853	4,746	4,650
SAN MATEO COUNTY SUPERIOR COURT					
General Members	237	231	222	239	249
SAN MATEO COUNTY MOSQUITO & VECTOR CONTROL DISTRICT					
General Members	20	20	20	19	18
Total Active Membership	5,337	5,187	5,095	5,004	4,917

Percentage of Membership by Employer

County of San Mateo	95.18%	95.16%	95.25%	94.84%	94.57%
San Mateo County Superior Court	4.45%	4.45%	4.36%	4.78%	5.06%
San Mateo County Mosquito and Vector Control District	0.37%	0.39%	0.39%	0.38%	0.37%
Total	100.00%	100.00%	100.00%	100.00%	100.00%

SCHEDULE OF PARTICIPATING EMPLOYERS AND ACTIVE MEMBERS (CONTINUED)

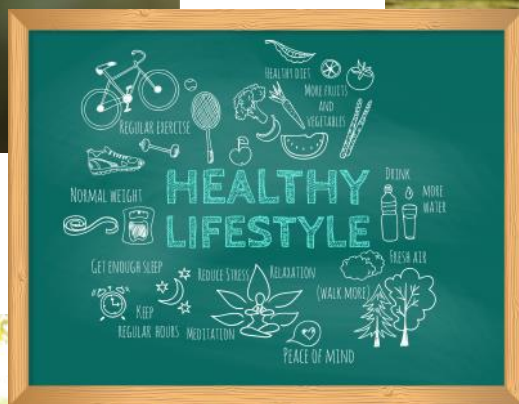
June 30

	2012	2011	2010	2009	2008
COUNTY OF SAN MATEO					
General Members	4,078	4,476	4,589	4,758	4,718
Safety Members	435	446	425	436	432
Probation Members	299	305	313	330	325
Subtotal	4,812	5,227	5,327	5,524	5,475
SAN MATEO COUNTY SUPERIOR COURT					
General Members	268	N/A	N/A	N/A	N/A
SAN MATEO COUNTY MOSQUITO & VECTOR CONTROL DISTRICT					
General Members	15	18	20	19	25
Total Active Membership	5,095	5,245	5,347	5,543	5,500

Percentage of Membership by Employer

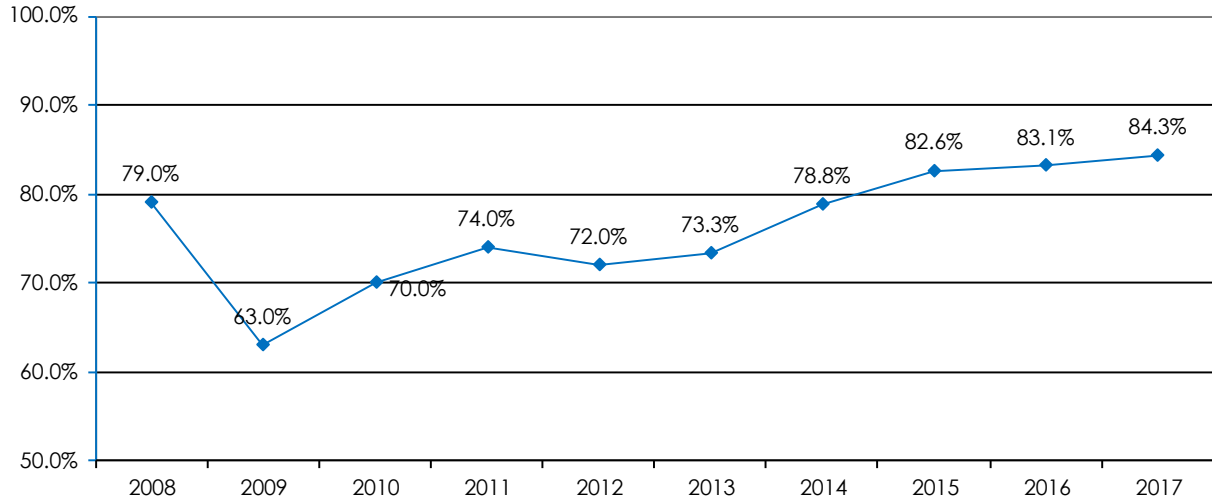
County of San Mateo	94.45%	99.66%	99.63%	99.66%	99.55%
San Mateo County Superior Court	5.26%	N/A	N/A	N/A	N/A
San Mateo County Mosquito and Vector Control District	0.29%	0.34%	0.37%	0.34%	0.45%
Total	100.00%	100.00%	100.00%	100.00%	100.00%

COMPLIANCE SECTION



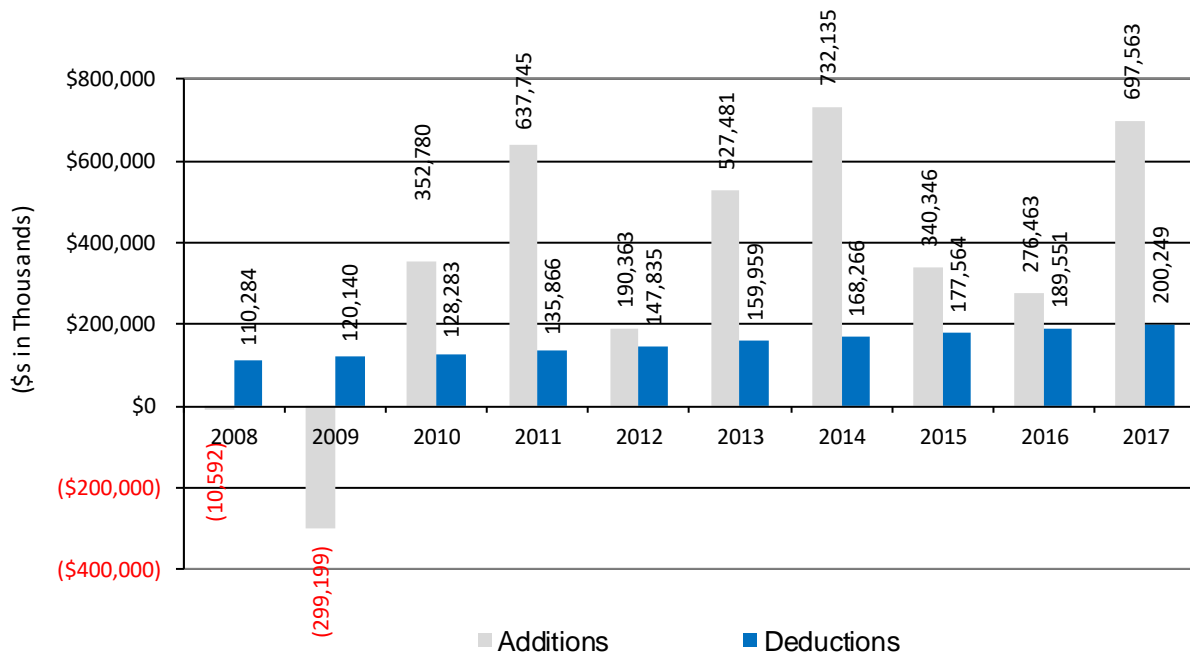
SAMCERA'S FUNDED RATIO

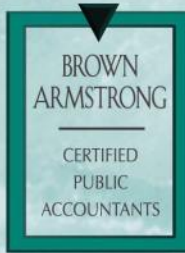
As of June 30



ADDITIONS TO AND DEDUCTIONS FROM SAMCERA'S NET POSITION

For the Fiscal Years Ended June 30





**BAKERSFIELD OFFICE
(MAIN OFFICE)**

4200 TRUXTUN AVENUE
SUITE 300
BAKERSFIELD, CA 93309
TEL 661.324.4971
FAX 661.324.4997
EMAIL info@bacpas.com

FRESNO OFFICE

7673 N. INGRAM AVENUE
SUITE 101
FRESNO, CA 93711
TEL 559.476.3592
FAX 559.476.3593

LAGUNA HILLS OFFICE

23272 MILL CREEK DRIVE
SUITE 255
LAGUNA HILLS, CA 92563
TEL 949.652.5422

STOCKTON OFFICE

5250 CLAREMONT AVENUE
SUITE 150
STOCKTON, CA 95207
TEL 209.451.4833

REGISTERED with the Public Company
Accounting Oversight Board and
MEMBER of the American Institute of
Certified Public Accountants

BROWN ARMSTRONG

Certified Public Accountants

**INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER
FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS
BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN
ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS**

To the Board of Retirement and Audit Committee of
San Mateo County Employees' Retirement Association
Redwood City, California

We have audited, in accordance with the 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, the financial statements of the San Mateo County Employees' Retirement Association (SamCERA) as of and for the fiscal year ended June 30, 2017, and the related notes to the financial statements, which collectively comprise SamCERA's basic financial statements, and have issued our report thereon dated October 23, 2017.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered SamCERA's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of SamCERA's internal control. Accordingly, we do not express an opinion on the effectiveness of SamCERA's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of SamCERA's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether SamCERA's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of SamCERA's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering SamCERA's internal control and compliance. Accordingly, this report is not suitable for any other purpose.

BROWN ARMSTRONG
ACCOUNTANCY CORPORATION

*Brown Armstrong
Accountancy Corporation*

Bakersfield, California
October 23, 2017

Online Information

This report can be found on SamCERA's website,.

www.samcera.org



100 Marine Parkway, Suite 125 | Redwood City, California 94065
Phone: 650-599-1234 | Toll-Free 800-339-0761 | Fax: 650-591-1488