



2019 Comprehensive Annual Financial Report

For the Fiscal Year Ended June 30, 2019



San Mateo County Employees' Retirement Association
Redwood City, State of California
A Pension Trust Fund of the County of San Mateo and Participating Employers



Power of the Past | Force of the Future

For 75 years, SamCERA has served as the retirement fund administrator serving employees from San Mateo County, the San Mateo County Superior Court, and the San Mateo County Mosquito and Vector Control District.

Over that time our membership has grown from less than 900 to over 12,000 dedicated public employees and their beneficiaries.

On this milestone anniversary, we reflect on the secure foundation that brought us to today, honoring those who came before us, and recognizing the members that we are lucky to serve.

We are proud that members and their beneficiaries have been able to rely on our service and benefits throughout the past 75 years, and as we move forward, we remain committed to providing quality service with integrity and prudently managing the Fund.



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

COMPREHENSIVE ANNUAL FINANCIAL REPORT

Fiscal Year Ended June 30, 2019

Scott Hood
Chief Executive Officer

Michael Coultrip
Chief Investment Officer

Tat-Ling Chow
Finance Officer

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

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INTRODUCTORY SECTION







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“2019 marks SamCERA’s 75th anniversary, and on this milestone, we remain committed in our mission: to serve as a loyal fiduciary to our members and as a prudent administrator of the retirement system.”



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, 2019. This report is intended to provide an overview of the SamCERA’s financial, investment, and actuarial status.

Under Government Code 31593, SamCERA is required to conduct an audit every 12 months and report upon its financial condition. The financial audit performed by Brown Armstrong Accountancy Corporation states that SamCERA’s financial statements are presented fairly, in all material respects, in conformity with Generally Accepted Accounting Principles (GAAP) in the United States of America. The auditor’s report is located on page 29.

Management acknowledges its responsibility for the entire contents of the CAFR, and also its responsibility for maintaining appropriate internal controls to provide reasonable, rather than absolute, assurance that the financial statements are free of any material errors. Management’s Discussion and Analysis (MD&A) is presented on pages 32-40, providing a narrative analysis of the basic financial statements. MD&A complements this letter of transmittal and should be read in conjunction with it.

2019 marks SamCERA's 75th anniversary, and on this milestone, we remain committed in our mission: to serve as a loyal fiduciary to our members and as a prudent administrator of the retirement system. In the course of fulfilling SamCERA's mission, we provide comprehensive customer service to more than 12,000 active, retired and deferred members and beneficiaries.

Authority, Responsibilities & Duties

The San Mateo County (the County) Board of Supervisors established retirement benefits for County employees effective 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 is responsible for providing retirement, disability, and death benefits to 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 SamCERA Board of Retirement (the Board), serving as fiduciary for all SamCERA's members and their beneficiaries under the California Constitution, Article XVI, Section 17 and the CERL, is responsible for administering the system. The duties of the Board, its officers, and its employees are to prudently manage plan assets and to ensure the ability to pay all earned benefits while minimizing employer contributions and defraying reasonable expenses of administering the system.

The Board 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 the 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 2018-19 were: Sandie Arnott, Chair; Kurt Hoefler, Vice Chair; and Al David, Secretary. Other members of the Board were: Katherine O'Malley, Eric Tashman, Benedict J. Bowler, Mark Battey, Robert Raw, and Paul Hackleman. Alternate Trustees were Susan Lee and Alma Salas.

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 41. A breakdown of the budget allotment versus actual expenses is presented on pages 71-72. In addition, the Board has authorized the execution of contracts for the professional services of an actuary, an investment consultant, investment

managers, a global custodian, a financial auditor, and a medical advisor delegated by the County Health Officer to help the Board fulfill its duties. The Board's primary professional consultants are highlighted in the organizational chart on page 24.

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 retirement system. 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 the governing law and SamCERA's regulations and policies.

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

Financial

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 GAAP and are free of material misstatements. Internal controls are reviewed to ensure that SamCERA has sufficient controls in place to ensure reliable financial reporting and to safeguard its assets. SamCERA's financial statements 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.

Investments

This year's returns of 5.4%, net of investment manager fees, fell slightly short of SamCERA's assumed rate of return of 6.75% and lower than the policy benchmark of 6.7%, for the one-year period ended in June 2019. For fiscal year 2018-19, all of SamCERA's five asset class composites (Public Equity, Fixed Income, Alternatives, Inflation Hedge and Risk Parity) had positive returns. Risk Parity was the best performing composite, while Inflation Hedge was the lowest returning asset class composite. This fiscal-year performance resulted in near median performance, relative to SamCERA's peers, as defined by large (greater than \$1 billion in assets) public plans. Although the plan has underperformed relative to the benchmark over the last two years, the plan continues to show above median performance over longer periods.

SamCERA continues to implement the approved target policy portfolio, which was approved in fiscal year 2017-18, over a multiple year period. It is anticipated that final implementation of the target policy will take place by year-end 2020. This past fiscal year, the Board funded two new low-volatility equity mandates, in addition to implementing a currency hedge fund program. Along with funding the equity mandates, the Board also funded a new public real asset mandate and made a commitment to a private credit mandate. These changes and others are noted in the Chief Investment Officer's Report on page 87.

A major focus of the Board in the next few fiscal years is to plan strategically for the ongoing maturation of SamCERA's pension plan. A mature pension plan (i.e., one with more inactive members than active members) has different sensitivities to various risks than a plan that is not mature. In addition, the Board is anticipating that the plan will become cash flow negative within the next five years as it becomes more mature as the plan moves closer to paying down its current unfunded liability. The Board will be planning on how to align the asset allocation in order to address the issues related to mature pension plans.

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 2019 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 low assumed rate of return of 6.75% and its current funding method, where the June 30, 2008 Unfunded Actuarial Accrued Liability (UAAL) is amortized over a fixed period ending June 30, 2023. Subsequent changes in the UAAL in years following June 30, 2008, are being amortized separately over new 15-year periods. At its July 2019 Board meeting, the Board approved further lowering the assumed investment earnings rate from 6.75% to 6.50%.

SamCERA engages an independent actuarial consulting firm, Milliman, Inc. (Milliman), to conduct an annual actuarial valuation of its 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 assets and liabilities. SamCERA strives to provide the most recent financial and actuarial data in its annual report.

Plan Funding Status

SamCERA maintains a funding goal that will fully fund the system's liabilities while maintaining employer contributions, as a percentage of payroll, as level as possible for the

plan sponsors. Milliman acts as the plan's actuary and performs actuarial valuations, which are presented to the Board annually. The purpose of the valuation is to determine the financial health of the plan at a given point in time and to recommend the employer and member contribution rates for the upcoming fiscal year. Triennially, Milliman conducts an experience study of SamCERA members and makes recommendations to the Board on key economic and noneconomic assumptions. The most recent triennial experience study was completed for the period ended April 30, 2017. SamCERA's next triennial experience study will be conducted in 2020.

Milliman's actuarial valuation as of June 30, 2019, determined that the funding ratio decreased from 87.5% to 85.8%. This decrease was due primarily to the lowering of the assumed rate of return. The Employer Normal Cost Rate increased to 11.27% for fiscal year 2020-21 from 10.57% of covered payroll for fiscal year 2019-20. The increase is due to lowering the assumed rate of return from 6.75% to 6.50%. Additionally, the portion of the employer's contribution rate that finances the unfunded actuarial accrued liability (UAAL) also increased from 23.10% of pay to 26.59% due to this change.

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 that was established in 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 approximately \$188.8 million as of June 30, 2019. Furthermore, the County is committed to continue making supplemental contributions over the next several 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 is approximately \$1.9 million as of June 30, 2019.

Cost of Living Adjustment

The annual Consumer Price Index for the Bay Area reflected higher inflation than the rest of the Country. Due to inflation, most SamCERA retirees and beneficiaries received a Cost of Living Adjustment (COLA) between 2.0% and 4.0%, depending on the COLA limit of their plan. The COLA for General and Safety Plan 1 was 4% and Probation Plan 1 was 3% with a 1% COLA bank. All Plan 2 members received 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 continues to improve the pension administration system that was implemented in January 2017. This included an upgrade to the newest version provided by the vendor, which consists of new features to enhance user experience.

IT staff have also relocated local servers in an effort to improve processing speeds for internal and external users of our pension administration program and for business continuity. In addition, to bolster business continuance for the pension administration system, an emergency virtual private network (VPN) tool has been implemented to allow access to the pension administration system in a disaster situation.

The IT and Finance Divisions have implemented a new financial reporting application to streamline processes, improve efficiency and stay up to date with technological advancements. Both divisions have also initiated a project to conduct a full IT risk assessment to better analyze and protect related systems. IT has also begun implementing digital signature technology in order to streamline document signing and approval processes.

Staff Strategic Planning

This year we made great progress in our strategic initiatives, outlined in SamCERA's Strategic Plan. SamCERA has continued to implement the strategic plan that was updated in 2019. After this year's Strategic Planning retreat, staff updated the plan to include new goals and objectives for the coming two-year period aligning it with the Board's Strategic Plan. The strategic plan will continue to evolve as our organizational needs change, giving the opportunity to employ a more thoughtful, intentional planning approach that directs efforts towards the newly adopted goals and objectives. 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:

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.

As previously mentioned, a major focus of the Board in the next few fiscal years is to plan strategically for the ongoing maturation of SamCERA's pension plan, and the potential impact on such things as the plan's asset allocation, liquidity management, and risk tolerance.

CUSTOMER SERVICES GOAL

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

Staff continues to strive in providing its members the highest level of customer service through one-on-one counseling sessions, seminars, member guides, self-service portal and a robust member education program. Furthermore, staff is working to ensure the pension administration system is performing as expected through monitoring, and regular testing.

OPERATIONS GOAL

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

Operationally, SamCERA will continue to focus on strengthening its internal control procedures with a focus on cybersecurity, enhancing features and ensuring consistent connectivity to our pension administration system, undertaking a succession planning strategy and improving our business continuity plan.

Certificate of Achievement and Acknowledgements

For the twenty-second 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, 2018. The certificate is reproduced on page 19. The Certificate of Achievement is a prestigious national award recognizing conformance with the highest standards for preparation of state and local government financial reports.

SamCERA is also the recipient of the GFOA Award for Outstanding Achievement in Popular Annual Financial Reporting (PAFR) for the sixteenth year running and has received this honor for the PAFR for the fiscal year ended June 30, 2018.

Additionally, the Public Pension Coordinating Council (the Council) presented SamCERA with its Public Pension Standards Award for 2018. 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 20.

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.

Acknowledgments

I am sincerely grateful to the Board, SamCERA staff and consultants who always perform diligently to ensure the successful operation and financial soundness of SamCERA and are committed to maintaining the highest financial reporting standards. I am also appreciative of the continuing cooperation and open communication that SamCERA has with all its participating employers.

As we celebrate our 75th anniversary of providing benefits to our members and beneficiaries, we must acknowledge those from the County and SamCERA who came before us and had the vision, commitment, and prudence to establish and ensure plan benefits for our past, present and future members and beneficiaries. We have a solid foundation upon which we will continue to build. And although much has been accomplished over the past 75 years, we will remain committed to achieving our goals of prudently managing the fund and providing the highest level of service to our members, employers and stakeholders.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "S. Hood", written in a cursive style.

Scott Hood
Chief Executive Officer

October 21, 2019

GFOA CERTIFICATE OF ACHIEVEMENT



Government Finance Officers Association

**Certificate of
Achievement
for Excellence
in Financial
Reporting**

Presented to

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

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

June 30, 2018

Christopher P. Morrill

Executive Director/CEO

PPCC PUBLIC PENSION STANDARDS AWARD



Public Pension Coordinating Council

***Public Pension Standards Award
For Funding and Administration
2018***

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 that reads "Alan H. Winkle".

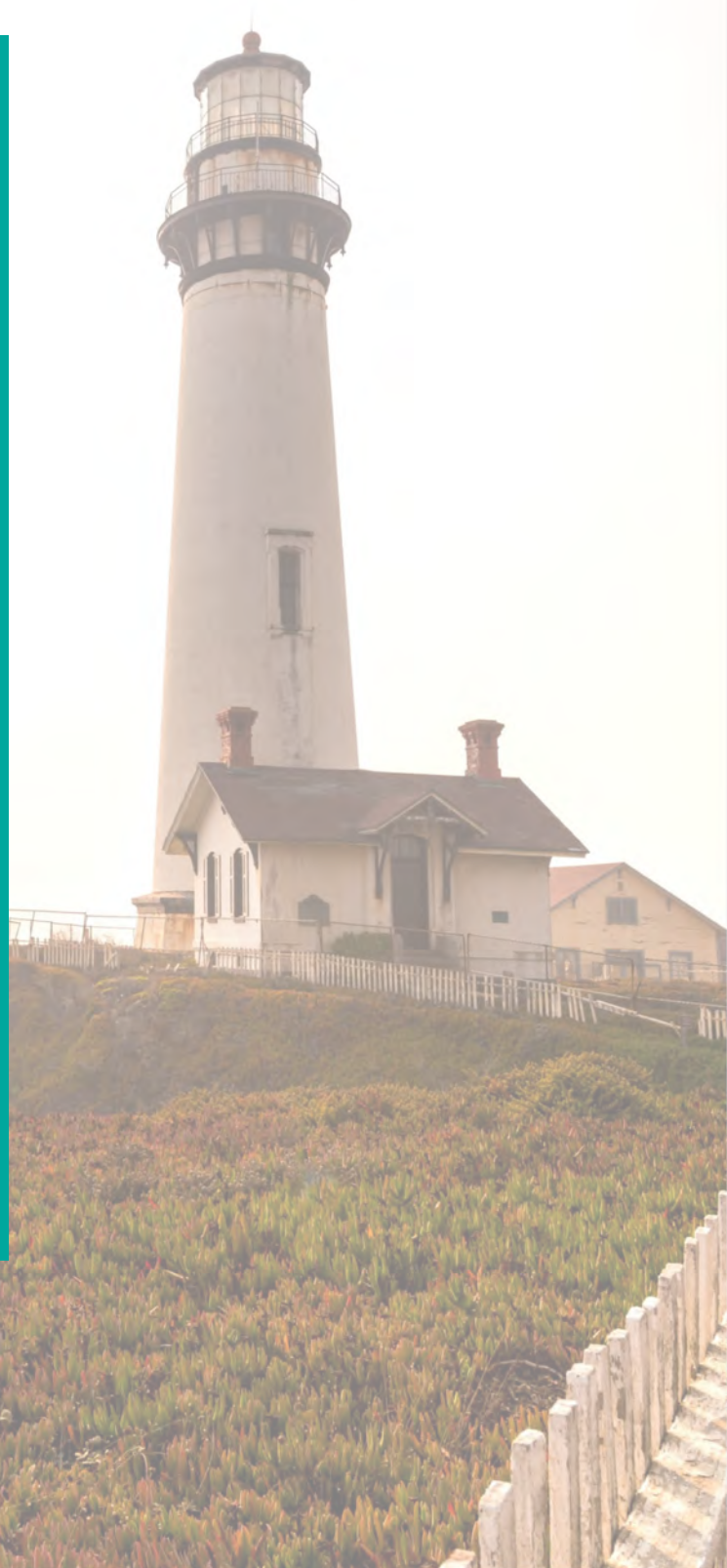
Alan H. Winkle
Program Administrator

SAMCERA's MISSION

SamCERA exists to serve as a loyal fiduciary for its members and as a 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.



Board of RETIREMENT

The Board manages the employees' Retirement Fund which is administered in accordance with the law solely for the benefit of the members and retired members of the system and their eligible beneficiaries.

The Board's responsibilities include: (1) setting and acting upon investment objectives and strategies to fund the benefits; and (2) approving the budget, regulations, policies and strategies for administering the system to ensure the prompt delivery of the benefits.



SANDIE ARNOTT

Board Chair

Ex Officio per the 1937 Act
First Member



KURT HOEFER

Vice Chair

Appointed by the Board
of Supervisors
Ninth Member



AL DAVID

Secretary

Elected by the General
Members
Third Member



KATHERINE O'MALLEY

Board Member

Elected by the General Members
Second Member



ERIC TASHMAN

Board Member

Appointed by the Board of
Supervisors
Fourth Member



BENEDICT J. BOWLER

Board Member

Appointed by the Board of
Supervisors
Fifth Member



MARK BATTEY

Board Member

Appointed by the Board of
Supervisors
Sixth Member



ROBERT RAW

Board Member

Elected by the Safety
Members
Seventh Member



PAUL HACKLEMAN

Board Member

Elected by the Retired
Members
Eighth Member



ALMA SALAS

Board Member

Elected by the Retired
Members
Retiree Alternate

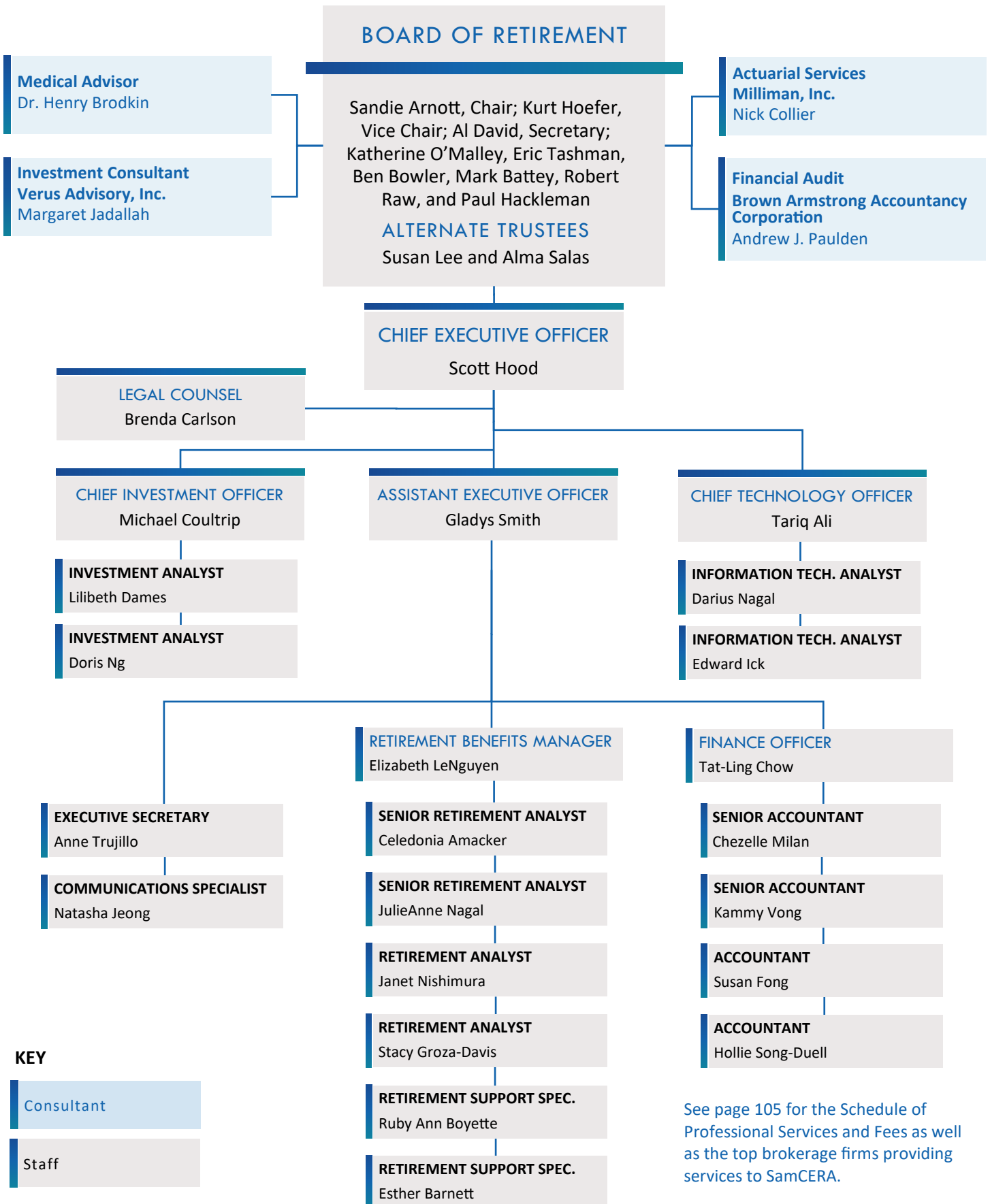


SUSAN LEE

Board Member

Elected by the Safety
Members
Safety Alternate

Organizational Chart



LIST OF PROFESSIONAL CONSULTANTS

(Other Than Investment Professionals)

Professional Service	Consultant
Auditors	Brown Armstrong Accounting Corporation
Consulting Actuary	Milliman, Inc.
Commercial Banking	Union Bank
Custodian	Northern Trust Corporation
Disability Counsel	Byers/Richardson
India Tax Agent	BSR & Co. LLP
Investment Consultant	Verus Advisory, Inc.
Investment Software Support	eVestment Alliance, LLC
Litigation Securities Class Action Services	ISS Governance
Pension Administration Software System	Vitech
Security Monitoring Counsel	Berman Tabacco Bernstein Litowitz Berger and Grossman LLP Grant and Elsenhofer LLP
Taiwan Tax Agent	Faith Global Company, Limited
Tax Counsel	Reed Smith LLP
Trade Cost Analysis Consultant	AN Zeno Consulting

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FINANCIAL SECTION





BROWN ARMSTRONG

Certified Public Accountants

INDEPENDENT AUDITOR'S REPORT

To the Board of Retirement and Audit Committee 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, 2019; 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 totals 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, 2019, 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 and other information 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 and other information. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements and other information, 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 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, 2019; 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 totals 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, 2019, in accordance 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 management's discussion and analysis and 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 and other information. 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 and the other information. 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 other information 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.

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 other information 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 21, 2019, 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 solely 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 effectiveness of SamCERA's 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, 2018, financial statements, and our report dated October 22, 2018, 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, 2018, 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

Brown Armstrong
Accountancy Corporation

Bakersfield, California
October 21, 2019

MANAGEMENT'S DISCUSSION AND ANALYSIS FOR FISCAL YEAR 2018-19

This section of the San Mateo County Employees' Retirement Association's (SamCERA) Comprehensive Annual Financial Report (CAFR) provides a narrative overview and analysis of SamCERA's financial activities for the fiscal year ended June 30, 2019. We encourage readers to read the information presented here, in conjunction with the Notes to the Basic Financial Statements beginning on page 43.

Financial Highlights

- As of June 30, 2019, SamCERA's net position (total assets minus total liabilities) reached \$4.7 billion, an increase of \$349 million, or 8%, compared to last fiscal year. This amount is exclusively restricted for meeting ongoing benefit obligations to plan participants and their beneficiaries.
- Total additions to the Retirement Fund were \$585 million, an increase of 6% from the prior fiscal year. The increase was primarily from contributions.
- Investment income decreased slightly by \$8 million, or 3%. The net return from investment slipped slightly from 6.7% last year to 5.4% this year, mainly due to lower returns in certain investments.
- Employer contributions increased by \$15 million, or 8%, primarily due to a 1.55% increase in required contribution rates and a 3.5% increase in covered payroll.
- To accelerate the pay down of its unfunded liabilities, the County of San Mateo increased its supplemental contributions by \$23 million, or 83%, in fiscal year 2019.
- Total deductions from the Retirement Fund were \$236 million, an increase of 9% from the prior fiscal year, triggered mainly by the annual cost of living adjustments and the increase in the number of retirees.
- Administrative expenses increased slightly by 4% compared to a year ago. Prudent spending habits continue to keep expenses in check and below budget.
- At June 30, 2019, the funded ratio for the Retirement Fund was 85.8%, a 1.7% decrease from the prior year. The decrease was mainly fueled by the change in the investment return assumption from 6.75% for the 2018 valuation to 6.50% for the 2019 valuation, which caused a \$174 million increase in unfunded liabilities.
- SamCERA's prime objective is to meet long-term benefit obligations through investment income and contributions. SamCERA's financial position has improved over the year as SamCERA continues to maintain the fiscal soundness of the Retirement Fund.

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 the Governmental Accounting Standards Board (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, 2019. 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 41 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. 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. This statement can be found on page 42 of this report.

Notes to the Basic Financial Statements

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. Notes to the Basic Financial Statements can be found on pages 43-73 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 74-78.

- 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 actuarially determined contributions over a period of time.
- Schedule of Investment Returns – shows the annual “time-weighted rate of return” and the annual “money-weighted rate of return” of the investment portfolio.
- Notes to the Required Supplementary Information – disclose additional details in relation to the required supplementary information presented.

Supplementary Information

Supplementary Information includes several schedules detailing administrative, information technology and investment expenses, as well as payments to consultants (for fees paid to outside professionals other than investment advisors). Supplementary Information and the accompanying notes can be found on pages 79-81 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 82-84 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 following table compares SamCERA's net position as of June 30 for the current and prior fiscal years. SamCERA's net position as of June 30, 2019, was approximately \$4.7 billion, an increase of \$349 million, or 8%, over the reporting period.

STATEMENT OF FIDUCIARY NET POSITION

June 30 (Dollars In Thousands)

	2019	2018	Increase (Decrease)	
			Amount	Percentage
Assets				
Cash and cash equivalents	\$ 33,102	\$ 53,125	\$ (20,023)	-38%
Cash management overlay	48,012	12,984	35,028	270%
Securities lending cash collateral	403	1,486	(1,083)	-73%
Receivables	23,341	19,611	3,730	19%
Prepaid expense	12	8	4	50%
Investments at fair value	4,625,276	4,289,745	335,531	8%
Capital assets, net	5,979	6,804	(825)	-12%
Total assets	4,736,125	4,383,763	352,362	8%
Liabilities				
Investment management fees payable	2,213	1,663	550	33%
Due to broker for investments purchased	9,061	5,408	3,653	68%
Collateral payable for securities lending	406	1,489	(1,083)	-73%
Other	1,335	1,241	94	8%
Total liabilities	13,015	9,801	3,214	33%
Net position restricted for pensions	\$ 4,723,110	\$ 4,373,962	\$ 349,148	8%

Assets. SamCERA's total assets increased by \$352 million, or 8%. Significant changes over the year include the following:

- \$20 million decrease in cash and cash equivalents. Before the fiscal year ended June 30, 2019, SamCERA transferred most of its cash from the County supplemental contributions to fund investments. In contrast, last fiscal year-end, the County supplemental contributions were kept in cash for planned new investment purchases.
- \$35 million increase in cash management overlay. The Board of Retirement (the Board) approved a 50% developed international equity currency-hedging strategy in 2019. This strategy serves as a measure to protect against anticipated changes in currency exchange rates. About \$28 million was placed into a newly implemented currency overlay to dampen expected volatility to the investment portfolio. In addition, staff increased the cash position in the general cash overlay by \$7 million to meet foreseeable operational needs.
- \$4 million increase in receivables. Outstanding receivables were considerably higher than last year due to the timing difference between the trade date and the settlement date of certain investments sold.
- \$336 million increase in investments. SamCERA continued its efforts to build out an investment structure in accordance with its new asset allocation policy. New capital was placed in various investment vehicles. Market appreciation was another key factor for the increase.

Liabilities. SamCERA's total liabilities increased by \$3 million, or 33%. The total amount payable to investment brokers increased by \$4 million as most of the investment purchase transactions completed before the fiscal year-end were settled in the upcoming fiscal year.

Analysis of Changes in Fiduciary Net Position

The changes in fiduciary net position are determined by total additions less total deductions. The table below shows condensed information about total additions to, and total deductions from, the fiduciary net position. SamCERA's fiduciary net position increased by \$349 million, or 8%, for the fiscal year ended June 30, 2019.

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

For the Fiscal Year Ended June 30 (Dollars In Thousands)

	2019	2018	Increase (Decrease)	
			Amount	Percentage
Additions				
Employer contributions	\$ 194,830	\$ 179,627	\$ 15,203	8%
Employer supplemental contributions	50,668	27,630	23,038	83%
Member contributions	67,696	64,204	3,492	5%
Net investment income	271,592	280,076	(8,484)	-3%
Net securities lending income	66	43	23	53%
Other	33	27	6	22%
Total additions	584,885	551,607	33,278	6%
Deductions				
Service retirement benefits	196,874	179,880	16,994	9%
Disability retirement benefits	25,212	23,872	1,340	6%
Survivor, death and other benefits	1,528	976	552	57%
Member refunds	3,571	4,326	(755)	-17%
Administrative expenses	6,057	5,849	208	4%
Information technology expenses	2,495	1,444	1,051	73%
Total deductions	235,737	216,347	19,390	9%
Changes in net position	349,148	335,260	13,888	4%
Net position restricted for pensions				
Beginning of year	4,373,962	4,038,702	335,260	8%
End of year	\$ 4,723,110	\$ 4,373,962	\$ 349,148	8%

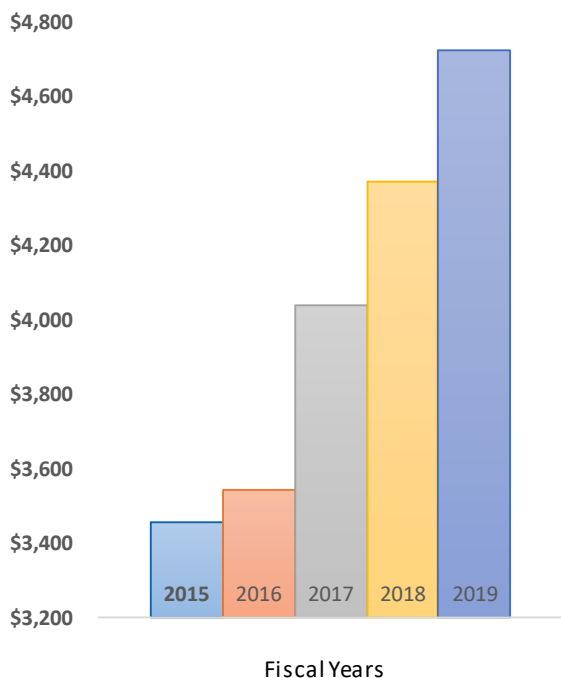
Additions. Total additions to SamCERA's net position increased by \$33 million, or 6%, compared to last fiscal year. Significant changes include the following:

- \$15 million increase in employer contributions. The employer statutory contribution rate for all plans increased by 1.55%, from 33.76% for fiscal year 2017-18 to 35.31% for fiscal year 2018-19. The key drivers of the increase included negotiated increases in payroll and changes in actuarial assumptions by lowering the assumed investment return from 7.00% to 6.75% and adopting generational mortality assumptions.
- \$23 million increase in employer supplemental contributions. The County of San Mateo (the County) escalated its efforts to pay off its unfunded liabilities by increasing the supplemental contributions from \$28 million last year to \$51 million this year.
- \$8 million decrease in net investment income. The net return from investment slipped from 6.7% last year to 5.4% this year, due mainly to lower returns in alternatives, inflation hedge and international equity investments from an absolute return perspective. From a relative return perspective, international equity outperformed its benchmark while alternatives and inflation hedge underperformed their respective benchmarks.

Deductions. Total deductions increased by \$19 million, or 9%, compared to last fiscal year. The increase was due primarily to the annual cost of living adjustment and an increase in the number of retirees.

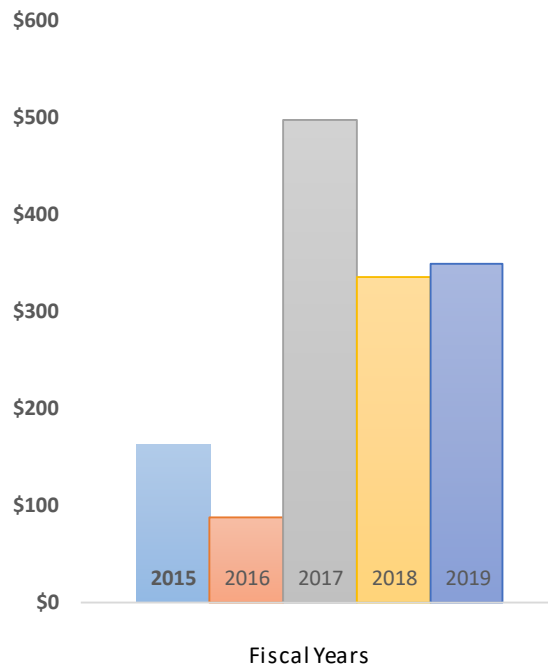
SAMCERA’S FIDUCIARY NET POSITION

June 30 (Dollars In Millions)



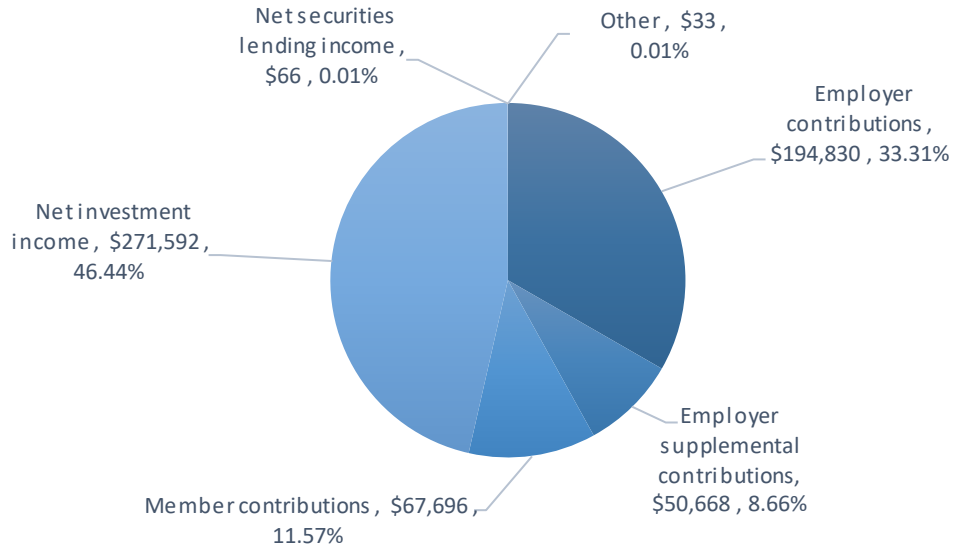
CHANGES IN SAMCERA’S FIDUCIARY NET POSITION

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



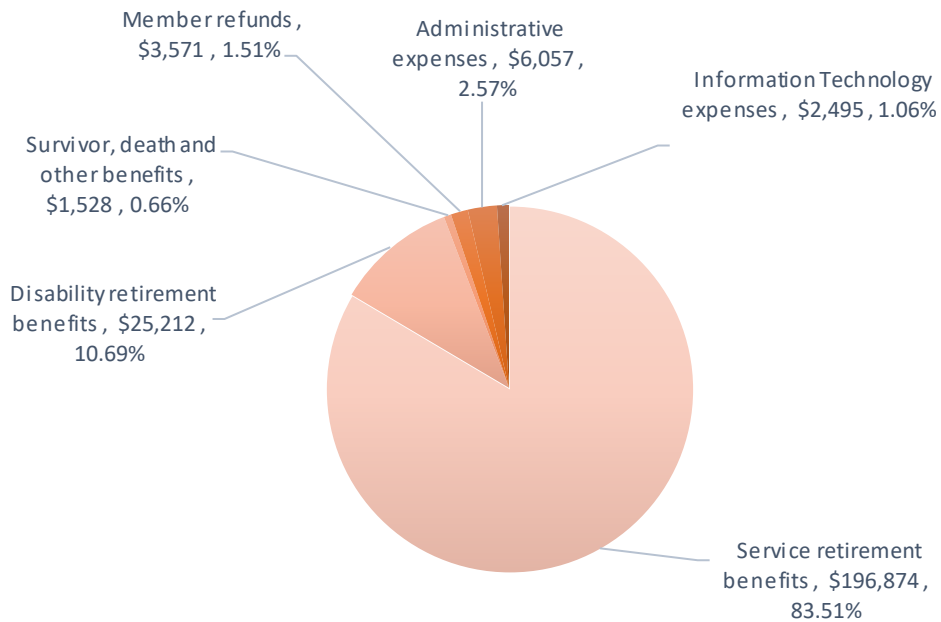
ADDITIONS TO FIDUCIARY NET POSITION

For the Fiscal Year Ended June 30, 2019 (Dollars In Thousands)



DEDUCTIONS FROM FIDUCIARY NET POSITION

For the Fiscal Year Ended June 30, 2019 (Dollars In Thousands)



Actuarial Valuation

SamCERA engages an independent actuarial firm, Milliman, Inc., 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 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 to maintain equity among generations of members.

Triennial Experience Study

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

The 2017 experience study called for changes in various assumptions. For economic assumptions, the investment return was adjusted from 7.00% to 6.75%, the general wage growth from 3.25% to 3.00%, and the consumer price index inflation from 2.75% to 2.50%. For demographic assumptions, the Board approved several changes in alignment with the results of the "experience study" that are used to predict future member behavior, such as retirement, disability, and mortality.

In July 2019, based on the actuary's recommendation, the Board reduced the assumed investment return from 6.75% to 6.50%, which was used in the valuation as of June 30, 2019. Other economic and demographic assumptions remain the same and will be reassessed during the next experience study in year 2020.

Plan Assets, Liabilities, and Funded Ratio

The Funded Ratio measures the funding adequacy of a retirement system. According to the latest actuarial valuation as of June 30, 2019, the plan's funded ratio (actuarial value of assets to actuarial accrued liabilities) decreased to 85.8% as of June 30, 2019, from 87.5% as of June 30, 2018. The decrease was due primarily to the change in investment return assumption from 6.75% for the 2018 valuation to 6.50% for the 2019 valuation.

As of June 30, 2019, the actuarial value of plan assets was \$4.7 billion, and the actuarial accrued liability was \$5.5 billion. The difference between these two amounts represents the unfunded actuarial accrued liability (the gap between promised benefits and the funding available to meet those obligations), which amounted to \$774.5 million (or 140% of the collective covered payroll of participating employers, totaling \$554.7 million for the fiscal year). The assets used in the calculation of the funded ratio include the values of the County's and the San Mateo County Mosquito and Vector Control District's Supplemental Contribution Accounts.

SamCERA's Fiduciary Responsibilities

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

Requests for Information

This financial report is designed to provide SamCERA's Board of Retirement, employers, members, investment managers, and any 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 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

STATEMENT OF FIDUCIARY NET POSITION*June 30, 2019 (with comparative amounts as of June 30, 2018)*

	<u>2019</u>	<u>2018</u>
ASSETS		
Cash and short-term investments:		
Cash and cash equivalents	\$ 33,102,412	\$ 53,125,429
Cash management overlay	48,011,505	12,984,127
Securities lending cash collateral	403,093	1,486,415
Total cash and short-term investments	<u>81,517,010</u>	<u>67,595,971</u>
Receivables:		
Contributions	10,300,002	9,422,510
Due from broker for investments sold	6,640,025	4,152,242
Investment income	6,292,641	5,930,254
Securities lending income	12,614	10,453
Other	95,566	95,057
Total receivables	<u>23,340,848</u>	<u>19,610,516</u>
Prepaid expense	11,669	7,669
Investments at fair value:		
Public equity	1,847,846,613	1,809,329,959
Fixed income	999,477,347	892,923,149
Alternatives	579,774,460	514,972,248
Risk parity	389,039,081	311,126,425
Inflation hedge	809,138,278	761,393,517
Total investments at fair value	<u>4,625,275,779</u>	<u>4,289,745,298</u>
Capital assets	8,040,088	8,040,088
Less: accumulated depreciation	<u>(2,060,891)</u>	<u>(1,236,535)</u>
Capital assets, net of accumulated depreciation	<u>5,979,197</u>	<u>6,803,553</u>
Total assets	<u>4,736,124,503</u>	<u>4,383,763,007</u>
LIABILITIES		
Investment management fees payable	2,213,009	1,663,178
Due to broker for investments purchased	9,060,929	5,408,607
Securities lending collateral due to borrowers	405,367	1,488,689
Other	1,335,263	1,241,019
Total liabilities	<u>13,014,568</u>	<u>9,801,493</u>
NET POSITION RESTRICTED FOR PENSIONS	<u>\$ 4,723,109,935</u>	<u>\$ 4,373,961,514</u>

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

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

For the Fiscal Year Ended June 30, 2019

(with comparative amounts for the fiscal year ended June 30, 2018)

	2019	2018
ADDITIONS		
Contributions:		
Employer	\$ 194,830,054	\$ 179,626,584
Employer Supplemental Member	50,668,357	27,630,129
Total contributions	<u>67,695,627</u>	<u>64,204,278</u>
Investment income:		
Interest and dividends	71,800,374	45,060,738
Net appreciation in fair value of investments	242,168,364	275,224,883
Total investment income	<u>313,968,738</u>	<u>320,285,621</u>
Less: investment expenses	<u>(42,376,557)</u>	<u>(40,210,092)</u>
Net investment income	<u>271,592,181</u>	<u>280,075,529</u>
Securities lending income:		
Earnings	88,955	52,886
Rebates	13,108	8,141
Fees	<u>(36,070)</u>	<u>(17,698)</u>
Net securities lending income	<u>65,993</u>	<u>43,329</u>
Other additions	<u>33,309</u>	<u>27,540</u>
Total additions	<u>584,885,521</u>	<u>551,607,389</u>
DEDUCTIONS		
Benefits:		
Service retirement benefits	196,874,097	179,880,342
Disability retirement benefits	25,211,881	23,872,145
Survivor, death and other benefits	<u>1,528,066</u>	<u>976,386</u>
Total benefits	<u>223,614,044</u>	<u>204,728,873</u>
Member Refunds	3,571,079	4,325,730
Administrative expenses	6,056,713	5,849,252
Information technology expenses	<u>2,495,264</u>	<u>1,444,010</u>
Total deductions	<u>235,737,100</u>	<u>216,347,865</u>
Net increase	349,148,421	335,259,524
NET POSITION RESTRICTED FOR PENSIONS		
Beginning of year	<u>4,373,961,514</u>	<u>4,038,701,990</u>
End of year	<u>\$ 4,723,109,935</u>	<u>\$ 4,373,961,514</u>

The accompanying notes to the 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 an independent public employee retirement system with its own governing board. Therefore, it is not subject to the provisions of the Employee Retirement Income Security Act of 1974 (ERISA).

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). The Board is responsible for governing the retirement system. SamCERA's management is responsible for overseeing daily operations and other crucial functions such as maintaining adequate internal controls and preparing financial statements.

General

SamCERA is a cost-sharing multiple-employer, defined benefit pension plan established to provide pension benefits for all permanent employees of the County of San Mateo (the County), the Superior Court of California, County of San Mateo (the Court), and the San Mateo County Mosquito and Vector Control District (the District). Because of its close financial relationship with the County (the primary plan sponsor), SamCERA is classified as a blended component unit of the County and reported as a pension trust fund in the County's financial statements.

Under the CERL, the governing 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 are 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 12 defined benefit plans based on a member's date of entry into SamCERA. These plans cover members classified as general, safety, and probation. The tables on the following two pages provide details for each of these plans.

Pension Plan Membership

Plan membership as of June 30, 2019, is displayed in the table below.

	Plan 1	Plan 2	Plan 3	Plan 4	Plan 5	Plan 6	Plan 7	Total
Retirees and beneficiaries currently receiving benefits								
General	1,364	2,009	131	873	8	-	4	4,389
Safety	268	225	-	99	1	-	2	595
Probation	82	112	-	47	-	-	-	241
Subtotal	1,714	2,346	131	1,019	9	-	6	5,225
Inactive employees entitled to but not currently receiving benefits (Deferred)								
General	7	282	69	767	88	-	406	1,619
Safety	1	18	-	43	9	-	16	87
Probation	-	17	-	38	1	-	5	61
Subtotal	8	317	69	848	98	-	427	1,767
Current employees, vested								
General	5	488	55	1,842	164	-	284	2,838
Safety	-	42	-	219	41	-	29	331
Probation	-	15	-	163	7	-	12	197
Subtotal	5	545	55	2,224	212	-	325	3,366
Current employees, non-vested								
General	-	1	5	12	109	-	1,645	1,772
Safety	-	-	-	-	22	-	177	199
Probation	-	-	-	-	1	-	39	40
Subtotal	-	1	5	12	132	-	1,861	2,011
Total Members	1,727	3,209	260	4,103	451	-	2,619	12,369

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.

Benefit Provisions

SamCERA provides basic service retirement, disability, survivor, and death benefits based on defined benefit formulas, which use final average compensation (FAC), years of service, and age factors to calculate benefits payable. In addition, SamCERA provides an annual Cost of Living Adjustment (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 limited adjustments for their member benefits.

Service Retirement Benefits. Members are entitled to receive lifetime benefits based on their plan membership and benefit option selected.

BENEFIT PLANS

		General Member	Probation Member	Safety Member
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; any age with 20 years of service.	Age 50 with 10 years of service; 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; any age with 20 years of service.	Age 50 with 10 years of service; any age with 20 years of service.
Plan 3	Hire Date	On or before 12/22/12, a non-contributory plan. (After five years of service, Plan 3 members can elect membership under the open 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 effective December 23, 2012.) (If retirement occurs prior to age 65, benefit amount will be adjusted by an actuarial equivalent factor.)	Not applicable	Not applicable
	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

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.

BENEFIT PLANS (CONTINUED)

June 30, 2019

	General Member	Probation Member	Safety Member
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; any age with 20 years of service.	Age 50 with 10 years of service; any age with 20 years of service.
Plan 5			
Hire Date	8/7/11 - 12/13/12	7/10/11 - 12/31/12	1/8/12 - 12/31/12 ⁽¹⁾
	(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; any age with 20 years of service.	Age 50 with 10 years of service; any age with 20 years of service.
Plan 6			
Hire Date	Not applicable	7/10/11 - 12/31/12	7/10/11 - 12/31/12 ⁽²⁾
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; any age with 20 years of service.	Age 50 with 10 years of service; any age with 20 years of service.
Plan 7			
Hire Date	On or after 1/1/13	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.

⁽¹⁾ For safety members, Plan 5 was only available for those with the Deputy Sheriff Association.

⁽²⁾ For safety members, Plan 6 was only available for those with the Organization of Sheriff's Sergeants.

Disability Benefits. Disability retirement may be non-service connected or service connected. Members who apply for non-service connected disability must have at least five years of eligible service credits. Service credit requirements do not apply to members who apply for service-connected disability benefits. If members are 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.

Active Member Survivor Benefits. Lifetime survivor benefits are available for eligible beneficiaries of active members if: (1) the member's death is service connected or (2) the member has at least five years of service credits. The beneficiary may instead opt for a one-time death benefit. All other active member death benefits are limited to a lump sum benefit.

Post-Retirement Survivor Benefits. Lifetime survivor benefits are available for certain eligible beneficiaries of a deceased retiree. The amount of benefits received is determined by the benefit option selected by the retiree.

Deferred Member Benefits. A member may withdraw member contributions plus accumulated interest upon termination of employment and forfeit the right to future benefits. 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 plan members with five years of service (either permanent or part-time employees with the equivalent of five years of full-time service) or non-contributory plan members in Plan 3 with ten years of service may elect a deferred retirement.

Cost of Living Adjustments (COLA). COLA increases are applied to all eligible retirement and death benefits, effective April 1. As of April 1 of each year, the Board will adjust the retirement benefits in accordance with changes in the Consumer Price Index (CPI) from the previous January 1 to the current January 1, to the nearest one-half of one percent.

The COLA is based on information from 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.

Recognition of Contributions, Benefits, and Refunds

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.

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.

During the fiscal year, SamCERA continued to make progress towards the asset allocation policy that was approved by the Board in the prior fiscal year's asset allocation review. SamCERA funded two new low-volatility equity mandates and one public real assets mandate, and also made a commitment to one new partnership within its fixed income category. Implementation of the last phase of the currency hedge program for developed international equity is anticipated to be completed by September 30, 2019.

As of June 30, 2019, the target asset allocation incorporated in SamCERA's Investment Policy and detailed in the Investment Section of this report only reflects the portion of the newly adopted allocation that has already been implemented. Due to the multiple phase process, SamCERA's current Investment Policy does not capture the new target policy 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 following 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.

Public equity and fixed income securities. 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 values 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 public 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 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.

Income from Investments

Interest income is recognized as it is earned. Dividend income is recognized when it is declared. Realized and 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, 2019, SamCERA's total capital assets, net of accumulated depreciation, approximated to \$6 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 year-end date of the financial statements, but prior to the issuance of final reports on October 21, 2019, which may have a material effect on the financial statements or disclosures contained therein. After the fiscal year-end, the Board approved a \$30 million commitment to a real estate partnership on July 16, 2019.

Reclassifications

Employer contributions reported in fiscal year 2018 have been reclassified into two separate components (“employer contributions” as required by statutes and “employer supplemental contributions”) to conform with the fiscal year 2019 presentation.

Note 3: Funding Policy

The funding objective of the pension plan is to establish employer and member contribution rates which, over time, will be sufficient to pay all expected future benefits not funded by the current assets. 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.

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.

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). Under the current funding method, the June 30, 2008 UAAL is amortized over a fixed period ending June 30, 2023. Changes in the UAAL in subsequent years are being amortized separately over new 15-year periods from the valuation date at which the difference is calculated.

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 Sections. 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, 2019, are subject to “one year” deferral. Thus, the new contribution rates from the June 2019 valuation are effective on July 1, 2020.

Note 4: Member Contributions

The member contributions vary by entry age as described in the CERL. In general, the member rate is determined by the present value of the future benefit payable at retirement age, divided by the present value of all future salaries payable between entry age and retirement age. Active members are required to make contributions as described below:

- **Basic contributions** are required of all members as determined by the entry age (except for members in Plan 3 and Plan 7) and class of each member. Basic contributions generally cease when safety members reach 30 years of service.
- **Cost sharing contributions** apply to General members in Plans 1, 2, and 4 (except for the District) and Safety and Probation members in Plans 1, 2, 4, and 5. The cost sharing contribution rates vary among bargaining units.
- **COLA cost sharing contributions** apply to all members of Plans 1, 2, 4, 5, and 6 (except the District). All members in these plans are required to contribute 50% of the cost of COLA. Effective July 2018, the County’s Board of Supervisors are required to make COLA cost sharing contributions.

The member contribution rate for all plans combined increased from 12.07% in fiscal year 2018 to 12.40% in fiscal year 2019. The increase is mainly triggered by changes in assumptions that were used in determining the contribution rates for fiscal year 2018-19. Plan 3 is non-contributory, which was open only for General members, but was closed to new members after December 22, 2012. Section 7522.30 of the Government Code defined contributions for Plan 7 members. All members of Plan 7 are required to contribute 50% of the total normal cost rate specific to each individual class (i.e., General, Safety, and Probation).

Note 5: Employer Contributions

The employer statutory contribution rate is set by the Board based on the annual actuarial valuation. For the fiscal year ended June 30, 2019, the employer statutory contribution rate for all plans combined was 35.31% of actual covered payroll, with 10.95% attributed to the normal cost and 24.36% to the UAAL. The employer statutory contributions as of percentage of covered payroll, including the normal cost and the UAAL, are shown in the table below.

EMPLOYER STATUTORY CONTRIBUTION RATES AS A PERCENTAGE OF COVERED PAYROLL

	2019	2018	Change
Normal Cost	10.95%	10.24%	0.71%
UAAL Amortization	<u>24.36%</u>	<u>23.52%</u>	<u>0.84%</u>
Total Employer Rate	<u>35.31%</u>	<u>33.76%</u>	<u>1.55%</u>

The employer normal cost rate increased from 10.24% of covered payroll for fiscal year 2018 to 10.95% for fiscal year 2019. The employer statutory contribution rate to finance the UAAL over 15 years increased from 23.52% of covered payroll for fiscal year 2018 to 24.36% for fiscal year 2019. These increases are mainly triggered by the changes in actuarial assumptions discussed earlier. Below is the Schedule of Employer Contributions covering the past ten fiscal years.

SCHEDULE OF EMPLOYER CONTRIBUTIONS

(Dollars In Thousands)

Fiscal Year Ended June 30	(a) Actual Employer Contributions	(b) Actuarially Determined Contributions	(a) - (b) Supplemental Contributions	Percentage of Actuarially Determined Contributions Received
2010	\$106,265	\$106,265	\$0	100%
2011	150,475	150,475	0	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%
2018	207,257	179,627	27,630 ⁽⁵⁾	100%
2019	245,498	194,830	50,668 ⁽⁶⁾	100%

⁽¹⁾ The County made a supplemental contribution of \$50 million to accelerate the pay down of its UAAL.

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

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

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

⁽⁵⁾ The County made a supplemental contribution of \$27.6 million to accelerate the pay down of its UAAL.

⁽⁶⁾ The County made a supplemental contribution of \$50.7 million to accelerate the pay down of its UAAL.

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 with annual contributions of \$10 million for the next 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 will receive interest at the actual market investment return rate, net of fees and costs. In fiscal year 2019, the County contributed \$50.7 million to the CSCA in addition to its annual required contribution. As of June 30, 2019, the CSCA had an aggregate reserve account balance of \$188.8 million. The resources in the CSCA are systematically recognized to provide an offset to the County's Statutory Contribution Rate. Without the recognition of the CSCA, the County's statutory contribution rate would be higher.

The County paid its annual required contributions for fiscal year 2019 via two semi-annual prepayments (one in July 2018 and another in January 2019). The prepayments were based on the adopted actuarially determined contribution rate and the projected covered payroll by plan, discounted by the assumed investment rate of return. Throughout the year, the prepayments were periodically reduced by actual contributions as determined by the adopted contribution rate and the actual covered payroll by plan. Near fiscal year-end, SamCERA performed a "true-up" calculation to ensure that the County's annual statutory contribution to SamCERA was fully settled. Any excess balance in the prepayment account will be applied towards the County's contribution for the upcoming fiscal year.

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 interest crediting dates of June 30 or December 31 will receive interest at the actual market investment return rate, net of fees and costs. Deposits for more than six months prior to the crediting date will receive interest at the actuarially calculated return on the actuarial value of the DSCA's asset. In 2017, the District made its second supplemental contribution of \$0.25 million.

As of June 30, 2019, the DSCA had an aggregate reserve account balance of \$1.9 million. Based on the latest amendment to the Memorandum of Understanding between SamCERA and the District, the resources in the DSCA will be recognized in five years from June 30, 2019, to provide an offset to the District's statutory contribution rate. Without the recognition of the DSCA, the District's statutory contribution rate would be higher.

Note 6: 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 in its discretion may 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, which is custodied at Bank of New York Mellon. Deposits with the Northern Trust Corporation are swept into a pooled short-term investment 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, 2019, \$14.2 million of cash was held in a pooled short-term investment fund with the Northern Trust Corporation, and \$13.8 million in the investment pool with the County Treasurer. Cash held by investment managers at year-end amounted to \$5.1 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 \$561,541 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 Chief Executive Officer on the Board's behalf. 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, 2019, SamCERA’s target asset allocation consists of 41% in public equity, 21% in fixed income, 12% in alternatives, 8% in risk parity, and 18% in the inflation hedge asset class. The actual asset allocation at fiscal year-end consisted of 41.4% in public equity, 21.0% in fixed income, 11.4% in alternatives, 8.3% in risk parity, 17.4% in inflation hedge, and 0.5% in cash and cash equivalents. See the note on page 99 for details.

Money-Weighted Rate of Return. The money-weighted rate of return expresses investment performance, net of pension plan investment expenses, adjusted for the timing of cash flows and the changing amounts actually invested. The annual money-weighted rate of return was 5.26% on SamCERA’s investments, net of investment manager fees, for the fiscal year ended June 30, 2019.

Long-Term Expected Real Rate of Return. The long-term expected real rate of return on pension plan investments was determined using a building-block method. Under this method, expected future real rate of returns (expected returns, net of inflation) are developed for each major asset class.

LONG-TERM EXPECTED REAL RATE OF RETURN

June 30, 2019

The table on the right shows the target allocation approved by the Board and projected geometric real rates of return for each major asset class (after deducting inflation, but before deducting investment expenses) that were used to derive the long-term expected investment rate of return assumption.

Asset Class	Target Allocation	Long-Term Expected Rate of Return
Public Equity	41%	4.9%
Fixed Income	21%	2.1%
Alternatives	12%	5.3%
Risk Parity	8%	5.1%
Inflation Hedge	18%	4.3%
Total	100%	

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. For separately managed accounts, managers’ responsibilities are detailed in the investment management agreements between SamCERA and each investment manager. For commingled fund investments, managers’ responsibilities are detailed and dictated by the related fund documents. The investment guidelines in most cases stipulate the investment style, performance objective, performance benchmarks, and portfolio characteristics.

Each investment manager, whom we hold a separately managed account with, is required to follow the “manager standard of care” to act prudently and solely in the best interest of

SamCERA. Each investment manager, whom we hold a commingled fund investment with, is required to follow its fiduciary duties with respect to the Fund. 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. 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. The longer the duration of the portfolio, the greater its price sensitivity to changes in interest rates. SamCERA has investments in twelve external investment pools containing debt securities. 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. Interest rate risk for the fixed income portfolios is displayed in the table below.

INTEREST RATE RISK ANALYSIS

June 30, 2019

Investment Portfolio	Fair Value	Weighted Average Coupon	Weighted Average Maturity (Years)	Effective Duration (Years)
Opportunistic Credit Funds ⁽¹⁾	\$ 348,130,949	6.48%	6.41	2.45
BlackRock Intermediate Government Bond	233,698,006	2.60%	4.05	3.75
Fidelity Institutional Asset Management	281,072,703	3.40%	7.98	5.41
Western Asset Management	136,575,689	3.50%	7.14	1.43
Total	<u>\$ 999,477,347</u>			

⁽¹⁾ This category consists of eight opportunistic Credit Funds managed by Angelo Gordon (two funds), Beach Point, Brigade Capital Management, Franklin Templeton, Tennenbaum Capital Partners, and PIMCO (two funds).

Custodial Credit Risk – Investment. 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 investments 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, 2019, SamCERA had no investments that were exposed to custodial credit risk.

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, 2019, is summarized in the table on the right.

S&P QUALITY BREAKDOWN FOR SAMCERA’S INVESTMENT IN BONDS (JUNE 30, 2019)

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.

Credit Risk	Commingled Management
AAA	46.2%
AA	2.8%
A	8.7%
BBB	6.0%
Less than BBB	25.2%
NR	11.1%
Total	100.0%

The table below indicates the magnitude of risk for each foreign currency denominated in U.S. dollars. Foreign investments held within commingled fund vehicles are excluded from analysis below.

FOREIGN CURRENCY RISK ANALYSIS

June 30, 2019

Trade Country Name	Common Stock	Foreign Currency	Total
Australia	\$ 13,651,121	\$ 114,685	\$ 13,765,806
Brazil	3,212,654	-	3,212,654
Canada	5,325,887	751,935	6,077,822
Switzerland	20,806,950	-	20,806,950
Denmark	7,825,910	-	7,825,910
Europe	100,013,535	168,043	100,181,578
United Kingdom	79,245,777	(83,278)	79,162,499
Hong Kong	20,751,514	-	20,751,514
India	11,000,717	22,003	11,022,720
Japan	87,655,927	228,897	87,884,824
South Korea	1,089,499	-	1,089,499
Mexico	1,615,505	-	1,615,505
Malaysia	2,518,451	-	2,518,451
Sweden	17,771,307	(243,858)	17,527,449
Singapore	16,082,789	-	16,082,789
South Africa	6,933,493	-	6,933,493
Total	\$ 395,501,036	\$ 958,427	\$ 396,459,463

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 commingled investments are excluded from the concentration of credit risk analysis. As of June 30, 2019, 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.

SamCERA currently employs external investment managers to manage its assets as permitted by the California Government Code and SamCERA's Investment Policy. Specific managers hold investments in swaps, options, futures, forward settlement contracts, and warrants and enter into forward foreign currency exchange security contracts within fixed income financial instruments.

- The fair value of options, futures, and warrants is determined based upon quoted market prices. The fair value of derivative investments that are not exchange traded, such as swaps and TBAs (To Be Announced), is determined by an external pricing service using various proprietary methods based upon the type of derivative instrument.
- Futures contracts are marked to market at the end of each trading day. The settlement of gains or losses occur on the following business day through variation margins.
- The fair value of international currency forwards represents the unrealized gain or loss on the related contracts, which is calculated as the difference between the specified contract exchange rate and the exchange rate at the end of the reporting period.

The derivative instruments held by SamCERA are considered investments and not hedges for accounting purposes. As of June 30, 2019, the derivatives held an aggregate notional amount of \$203.7 million. The fair value of derivatives totaling an amount of \$124,700 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 2019 are reported in the Statement of Changes in Fiduciary Net Position as a component of investment income.

The derivatives that SamCERA held at fiscal year-end are shown below. Compared to SamCERA's total investments at fair value, the fair value of SamCERA's derivatives as of June 30, 2019, is not material.

INVESTMENT DERIVATIVES

June 30, 2019

Type of Derivatives	Notional Value	Fair Value
Interest Rate Contracts - Short	\$ 7,550,469	\$ (7,758)
Foreign Exchange Contracts - Short	137,636,903	(201,577)
Foreign Exchange Contracts - Long	3,751,195	2,695
Equity Contracts - Long	54,717,299	331,340
Total	\$ 203,655,866	\$ 124,700

Interest Rate Risk – Derivatives. SamCERA's investments in interest rate derivatives are highly sensitive to changes in interest rates. The investment maturities for the majority of the investments in the table above are 3 months or less. The investment maturity for \$7.1 million of investments in derivatives is 3-6 months.

Foreign Currency Risk – Derivatives. 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. *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.

Custodial Credit Risk – Derivatives. As of June 30, 2019, 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 a 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.

Securities Lending Activity

SamCERA is authorized by its Investment Policy and state law to participate in a securities lending program. Securities lending transactions are short-term collateralized loans of SamCERA's securities for the purpose of generating additional investment income.

SamCERA has a securities lending agreement in place that authorizes its securities lending agent to lend SamCERA's securities to broker-dealers and banks pursuant to a loan agreement. For each type of security loaned, SamCERA receives cash or non-cash collateral. SamCERA invests the cash and receives earnings on it in exchange for paying a loan rebate fee to the borrower. In the case of non-cash collateral, the borrower pays SamCERA a loan premium.

For the fiscal year ended June 30, 2019, on behalf of SamCERA, the securities lending agent lent SamCERA's securities to borrowers under the securities lending agreement. In return, SamCERA received cash and obligations issued or guaranteed by the U.S. government, or its agencies or instrumentalities.

Borrowers were required to deliver collateral for each loan equal to (1) loaned securities denominated in U.S. dollars or sovereign debt issued by foreign governments, with a margin of at least 102% of the fair value of the loaned securities; and (2) loaned securities not denominated in U.S. dollars, or whose primary trading market was not located in the United States, with a margin of at least 105% of the fair value of the loaned securities. In addition, borrowers were required to maintain the designated margin percentage of collateral on a daily basis.

SamCERA imposes the following restrictions on the loans that the securities lending agent makes on SamCERA's behalf:

- Borrower must have a long-term credit rating of either "A" from Standard and Poor's (S&P) or "A2" from Moody's Investors Service (Moody's). For split-rated borrowers, the higher rating shall prevail if not the same rating, with the lower rating have a minimum long-term credit rating of either "A-" from S&P or "A3" from Moody's.
- The maximum allowable amount of assets on loan to any single borrower shall not be greater than \$3 million.
- The maximum total amount of program assets on loan shall not be greater than \$10 million.

The securities lending agent indemnified SamCERA by agreeing to purchase replacement securities or to supplement the amount of cash collateral provided to SamCERA. Such indemnification will become effective in the event the borrower fails to return the loaned securities and the collateral is inadequate to replace the securities lent or the borrower fails to pay SamCERA for any income distributions on loaned securities. SamCERA did not experience

any loss from a default of the borrowers or the securities lending agent during the reporting period. SamCERA and the borrowers maintained the right to terminate all securities lending transactions on demand.

As of June 30, 2019, the fair value of securities on loan reported and the total collateral held amounted to \$7.3 million and \$7.5 million (with \$0.4 million in cash collateral and \$7.1 million in non-cash collateral), respectively. The amount of collateral exceeded the amount of securities on loan by \$145,847. The securities on loan include U.S. equities and international equities.

The cash collateral received on each loan was invested in a short-term investment pool, the Northern Institutional Liquid Assets Portfolio (NILAP), managed by the securities lending agent. The average maturity of securities on loan was approximately 66 days as of June 30, 2019. SamCERA does not have the ability to pledge or sell non-cash collateral delivered absent a borrower default. Therefore, such non-cash collateral is not reported on the Statement of Fiduciary Net Position. There were no violations of legal or contractual provisions, no borrower or lending agent default losses known to the securities lending agent.

Securities Lending Collateral Credit Risk. All of the cash collateral received for securities lending is invested in the NILAP Cash Collateral Fund (the Fund), which is not rated by credit rating agencies. All investments qualify as “eligible securities” within the meaning of Rule 2(a)-7 of the Investment Company Act of 1940. The Fund seeks to maintain a stable net position value per share of \$1 by valuing its Fund using an amortized cost method and complying with the requirements of Rule 2(a)-7.

Securities Lending Collateral Interest Rate Risk. Cash collateral from loans of securities are invested in the Fund. The Fund’s average effective duration is restricted to 90 days or less. As of June 30, 2019, the Fund had an interest rate sensitivity of 26 days.

Fair Value Measurement

GASB Statement No. 72, *Fair Value Measurement and Application*, establishes a fair value hierarchy based on the following 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 63-64) 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, 2019

Investments by Fair Value Level	June 30, 2019	Fair Value Measurements Using	
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)
EQUITY SECURITIES			
Foreign Stocks	\$ 428,199,722	\$ 428,199,722	
US Common & Preferred Stock	370,384,323	370,384,323	
Total Equity Securities	798,584,045	798,584,045	
COMMINGLED FUNDS			
Domestic Bond Funds	495,123,892	87,782,790	\$ 407,341,102
Domestic Equity Funds	566,741,398	-	566,741,398
International Equity Funds	346,941,153	-	346,941,153
Liquid Pool Funds	251,230,510	-	251,230,510
Total Commingled Funds	1,660,036,953	87,782,790	1,572,254,163
COLLATERAL FROM SECURITIES LENDING	403,093	-	403,093
Total Investments by Fair Value Level	2,459,024,091	\$ 886,366,835	\$ 1,572,657,256
Investments Measured at the Net Asset Value (NAV)			
Domestic Bond Funds	499,068,949		
Global Bond Funds	42,351,913		
Domestic Equity Funds	145,207,692		
International Equity Funds	64,932,940		
Real Estate Funds	380,726,638		
Risk Parity Funds	389,039,081		
Absolute Return/Hedge Funds	243,015,716		
Private Equity Funds	336,758,744		
Private Real Asset Funds	65,553,108		
Total Investments Measured at NAV	2,166,654,781		
Total Investments	\$ 4,625,678,872		
Derivatives⁽¹⁾			
Interest Rate Contracts - Short	\$ (7,758)	\$ -	\$ (7,758)
Foreign Exchange Contracts - Short	(201,577)	-	(201,577)
Foreign Exchange Contracts - Long	2,695	-	2,695
Equity Contracts - Long	331,340	331,340	-
Total Derivatives	\$ 124,700	\$ 331,340	\$ (206,640)

⁽¹⁾ Derivatives are reported under cash management overlay on the Statement of Fiduciary Net Position.

INVESTMENTS MEASURED AT NET ASSET VALUE (NAV)

June 30, 2019

Investments Measured at NAV	6/30/2019	Unfunded Commitments	Redemption Frequency (if currently eligible)	Redemption Notice Period
Domestic Bond Funds ⁽¹⁾	\$ 499,068,949	\$ -	Daily, Quarterly	15-90 days
Global Bond Funds ⁽¹⁾	42,351,913	-	Monthly	15 days
Domestic Equity Funds ⁽¹⁾	145,207,692	-	Daily	1-5 days
International Equity Funds ⁽¹⁾	64,932,940	-	Daily	1-10 days
Real Estate Funds ⁽²⁾	380,726,638	27,200,000	Quarterly, Not Eligible	45 days
Risk Parity Funds ⁽³⁾	389,039,081	-	Monthly	15 days
Hedge Funds/Absolute Return ⁽⁴⁾	243,015,716	-	Semi-Monthly, Monthly	5-75 days
Private Equity Funds ⁽⁵⁾	336,758,744	191,500,000	Not Eligible	Not applicable
Private Real Asset Funds ⁽⁵⁾	65,553,108	120,600,000	Not Eligible	Not applicable
Total Investments Measured at NAV	\$ 2,166,654,781	\$ 339,300,000		

(1) **Bond and Equity Funds.** This type includes eight domestic bond funds, one global bond fund, one domestic equity fund, and one international equity fund that is considered to be commingled in nature. Each is valued at the net asset value 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 U.S. This type also includes one real estate debt fund that originates loans primarily across a diversified portfolio of institutional quality multi-family, industrial, retail, office and specialty assets. The fair values of the investments in these types have been determined using the NAV (or its equivalent) of the plan's ownership interest in partners' capital. One investment has quarterly liquidity, one is subject to an initial 2 year lock-up with quarterly liquidity thereafter while the other two are 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) **Absolute Return/Hedge Funds.** This strategy consists of two multi-strategy absolute return/hedge funds. 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 Real Asset Funds.** This type includes twenty-four private equity funds, investing primarily in Buyout Funds, Venture Capital, and Debt/Special Situations. This type also includes ten Private Real Asset funds, investing in infrastructure, mining finance, solar, energy, and farmland. 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, 2019, 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: use quoted prices for identical securities in markets that are not active;
- Corporate and Municipal Bonds: use quoted prices for similar securities in active markets;
- Repurchase Agreements, Negotiable Certificates of Deposit, and Collateralized Debt Obligations: use matrix pricing based on the securities' relationship to benchmark quoted prices;
- Money Market, Bond, and Equity Mutual Funds: use published fair value per share (unit) for each fund; and
- Commingled and high-yield equity investments: use matrix pricing techniques or quoted prices for similar securities in active markets.

Note 7: 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, 2019. 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 6.67% discussed later) to be provided through the pension plan to active, inactive, and retired members (or their beneficiaries) based on those members' past periods of services.

Actuarial Methods and Assumptions

Each year SamCERA engages an independent actuarial consulting 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 plan 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, 2019

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, 2019
Total pension liability	\$ 5,339,216,207
Less: Plan fiduciary net position	(4,723,109,935)
Employers' net pension liability	<u>\$ 616,106,272</u>
Plan fiduciary net position as a % of total pension liability	88.46%
Covered payroll	\$ 554,734,196
Employers' net pension liability as a % of covered payroll	111.06%

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	6.67%
Long-term expected rate of return, net of expenses	6.50%

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, 2019
Measurement date	June 30, 2019
Key assumptions	
Investment rate of return ⁽¹⁾	6.67%
General wage increases	3.00%
Inflation	2.50%
Mortality	Various rates based on mortality tables described in the June 30, 2019, 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, 2023. 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 that 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 6.67% as of June 30, 2019, compared to 6.92% from a year ago. 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 all participating employers at year-end, using the current discount rate of 6.67%, 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.

SCHEDULE OF SENSITIVITY ANALYSIS

June 30, 2019

	1% Decrease 5.67%	Current Discount Rate 6.67%	1% Increase 7.67%
Total pension liability	\$ 6,116,217,610	\$ 5,339,216,207	\$ 4,707,816,259
Less: Fiduciary net position	(4,723,109,935)	(4,723,109,935)	(4,723,109,935)
Net pension liability	\$ 1,393,107,675	\$ 616,106,272	\$ (15,293,676)

Note 8: Plan Reserves

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 and other benefits when they become due.

SamCERA uses three different types of accounts to record the plan reserves: the valuation reserves, the non-valuation reserve, and the market stabilization account. The plan reserves as of June 30, 2019, are presented in the following table.

RESERVES REQUIRED BY THE CERL FOR REPORTING PURPOSES

June 30, 2019

Valuation Reserves

Member Reserve	\$ 769,136,683
Employer Advance Reserve	1,086,126,550
Retiree Reserve	1,198,883,409
Cost of Living Adjustment Reserve	1,464,872,095
County Supplementary Contribution Account Reserve	188,806,043
District Supplementary Contribution Account Reserve	1,864,243
Undistributed Earnings/Losses Reserve ¹	<u>(24,074,932)</u>
Total Valuation Reserves	<u>4,685,614,091</u>

Non-Valuation Reserve

Contingency Reserve	47,328,299
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Market Stabilization Account(9,832,455)**Total Reserves (Market Value of Assets)****\$ 4,723,109,935**

¹ This reserve was classified as a valuation reserve under the latest revised Interest Crediting Policy.

Valuation Reserves

The valuation reserves are made up of the following:

Member 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 Retiree Reserve when 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 Retiree Reserve when 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.

Retiree Reserve represents funding set aside for retirement benefits. Additions include transfers from the Member 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 and their beneficiaries.

Cost of Living Adjustment Reserve represents employer contributions 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 and their beneficiaries.

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

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

Undistributed Earnings/Losses Reserve is established to account for cumulative undistributed actuarial earnings or losses.

Non-Valuation Reserve

The Board established the Contingency Reserve of which the value is not used to determine 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.

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. As of June 30, 2019, the balance in the Market Stabilization Account was negative \$10 million.

Interest Crediting

SamCERA semi-annually updates its reserve balances on December 31 and on June 30 to incorporate interest credit as specified in Article 5 of the CERL (Semi-Annual Interest Crediting). The Board adopted an *Interest Crediting Policy* stipulating how earnings should be allocated among valuation reserves.

The Board also adopted a *Five-year Actuarial Smoothing Policy*, which will be used to calculate the actuarial value of assets as well as the net available earnings for interest crediting purposes. The calculation incorporates the “smoothing” strategy to spread the difference between actual and expected market return over five years (or ten successive semi-annual periods).

The CSCA and the DSCA Reserves are credited semi-annually in accordance with provisions of the “Memorandum of Understanding” between SamCERA and the respective employer.

The Member Reserve is 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 immediately preceding the period in which interest is being credited. The “assumed investment earning rate” is the rate used to determine employer rates for the fiscal year in which the allocation is taking place. The rate credited to the Member Reserve shall not be less than zero.

To the extent of the net available earnings, interest is credited to all components of valuation reserves (except the Member Reserve, the CSCA Reserve, the DSCA Reserve, and the Undistributed Earnings/Losses Reserve) at a rate of one-half of the assumed investment earnings rate.

When allocable earnings are insufficient to cover interest credits to the reserves specified discussed earlier, 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.

Note 9: 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 actual administrative expenses for the reporting period amounted to 0.13% of the accrued actuarial liability at June 30, 2017 (the latest information available when preparing the administrative budget for fiscal year 2019). Information technology expenses are excluded

from this limit. The tables below show allowable administrative expenses and budget-to-actual analysis of administrative expenses for the fiscal year ended June 30, 2019.

ADMINISTRATIVE EXPENSES FOR THE FISCAL YEAR ENDED JUNE 30, 2019, COMPARED TO ACTUARIAL ACCRUED LIABILITY AS OF JUNE 30, 2017

(Dollars in Thousands)

Actuarial Accrued Liability (AAL) as of June 30, 2017	\$	4,719,850	(a)
Maximum Allowed for Administrative Expenses (AAL*0.21%)	\$	9,912	(b)
Operating Budget for Administrative Expenses	\$	7,025	(c)
Actual Administrative Expenses	\$	6,057	(d)
Excess of Allowed over Actual Administrative Expenses	\$	3,855	=(b) - (d)
Excess of Budgeted over Actual Administrative Expenses	\$	968	=(c) - (d)
Actual Administrative Expenses as a Percentage of Actuarial Accrued Liability as of June 30, 2017		0.13%	=(d)/(a)

SAMCERA'S ADMINISTRATIVE EXPENSES, BUDGET VS. ACTUAL

For the Fiscal Year Ended June 30, 2019

	Budget	Actual	Under Budget	% of Budget Remaining
Salaries and benefits	\$ 5,388,700	\$ 4,706,675	\$ 682,025	13%
Services and supplies	1,636,395	1,350,038	286,357	17%
Total expenses	\$ 7,025,095	\$ 6,056,713	\$ 968,382	14%

The overall salaries and benefits for the fiscal year 2019 were 13% below the budget, due primarily to the elimination of a vacant management position and the timing of filling two vacant positions in the Benefits Division.

The overall expenses for services and supplies were 17% below the budget. Major reasons include the following:

- Among all members applying for disability retirement, only three members required an independent medical evaluation per SamCERA's medical advisor's recommendation. In addition, only one member pursued a formal hearing for his disability case.
- Board members and staff did not attend certain conferences as initially expected, which significantly reduced the overall spending on traveling and lodging expenses.

- Postage and printing expenses continued to decline due to SamCERA’s persistent efforts to communicate with its members and business partners electronically, whenever possible. In addition, most of the printing and mailing jobs were performed in-house rather than relying on outside service providers as a measure to keep operating costs down.
- Three elected Retirement Board positions were open for election in June 2019. All three incumbents ran unopposed, leaving the budget for election setup fee nearly intact.
- Demands for general office supplies, property and equipment were far below projections.

Note 10: 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 starting with fiscal year 2012 when this code was enacted. The table below presents the budget-to-actual analysis of technology expenses for the fiscal year ended June 30, 2019.

SAMCERA’S INFORMATION TECHNOLOGY EXPENSES, BUDGET VS. ACTUAL

For the Fiscal Year Ended June 30, 2019

	Budget	Actual	Under Budget	% of Budget Remaining
Property and equipment	\$ 60,000	\$ 15,315	\$ 44,685	74%
Information technology infrastructure ⁽¹⁾	1,914,340	1,645,708	268,632	14%
County ISD Support	150,000	5,060	144,940	97%
Research and development	14,000	4,824	9,176	66%
Total expenses	\$2,138,340	\$1,670,907	\$467,433	22%

⁽¹⁾ In fiscal year 2019, SamCERA reported a total depreciation expense of \$824,357 on its basic financial statements. Since depreciation is a non-cash expense and not included in the adopted budget, it was excluded from the actual expense column for comparison purposes.

The overall Information Technology (IT) expenses were modestly below the budget, due primarily to the following:

- The amounts budgeted for computer equipment, software, technical support from the County’s Information System Department were mostly earmarked for unexpected needs. Throughout the year, the need for unplanned purchases or services was sparse.
- Technology Research and Development (R&D) expenses were substantially below projections. Due to time constraints, staff did not fully utilize the resources allocated to explore new technologies that may improve the daily operations and member services.

Note 11: 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. 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 employee count.

The Retirement Board members and senior staff purchase separate fiduciary liability insurance for the actual or alleged breach of fiduciary duties through a policy provided by RLI Insurance Company of Peoria, Illinois. The coverage is limited to \$10 million in the aggregate for all loss combined including defense costs.

Note 12: Related Party Transactions

SamCERA has ongoing 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 are on a cost-reimbursement basis.

Note 13: Commitments

At June 30, 2019, SamCERA had a total "uncalled capital" of \$339.3 million, with \$191.5 million in private equity investments, \$120.6 million in private real asset investments, and \$27.2 million in real estate investments. SamCERA is still in the process of building out its private equity, private real asset, and real estate portfolios and intends to make additional commitments over the next three to five years.

Note 14: Contingent Liability

SamCERA is subject to legal proceedings and claims arising from the normal course of its business. Currently, no pending or threatened litigation are adjudicated or reported. As for unasserted claims, future writs of mandates could be filed to reverse Board decisions on disability matters.

REQUIRED SUPPLEMENTARY INFORMATION

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

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 Governmental Accounting Standards Board (GASB) Statement No. 67. This schedule will ultimately show information for ten years.

For the Fiscal Years Ended June 30	2019	2018	2017
Total Pension Liability			
Service cost	\$ 108,644,383	\$ 107,738,142	\$ 96,411,681
Interest on total pension liability	336,260,838	319,776,913	306,404,154
Effect of assumption changes or inputs	167,870,889	-	147,541,839
Effect of economic/demographic gains (losses)	91,316,336	27,753,956	4,834,605
Benefit payments and refund of contributions	(227,185,123)	(209,054,603)	(193,240,280)
Net change in total pension liability	476,907,323	246,214,408	361,951,999
Total pension liability, beginning	4,862,308,884	4,616,094,476	4,254,142,477
Total pension liability, ending (a)	<u>\$ 5,339,216,207</u>	<u>\$4,862,308,884</u>	<u>\$4,616,094,476</u>
Fiduciary Net Position			
Employer contributions	\$ 245,498,411	\$ 207,256,713	\$ 198,727,135
Member contributions	67,695,627	64,204,278	62,160,101
Investment income net of investment expenses	271,691,483	280,146,398	436,675,706
Benefit payments and refund of contributions	(227,185,123)	(209,054,603)	(193,240,280)
Administrative and technology expenses	(8,551,977)	(7,293,262)	(7,009,169)
Net change in plan fiduciary net position	349,148,421	335,259,524	497,313,493
Fiduciary net position, beginning	4,373,961,514	4,038,701,990	3,541,388,497
Fiduciary net position, ending (b)	<u>\$ 4,723,109,935</u>	<u>\$4,373,961,514</u>	<u>\$4,038,701,990</u>
Net pension liability, ending = (a) - (b)	\$ 616,106,272	\$ 488,347,370	\$ 577,392,486
Fiduciary net position as a % of total pension liability	88.46%	89.96%	87.49%
Covered payroll	\$ 554,734,196	\$ 535,937,622	\$ 510,132,014
Net pension liability as a % of covered payroll	111.06%	91.12%	113.18%

Note: *Changes of assumptions.* In 2017, amounts reported as changes of assumptions resulted primarily from adjusting the assumed investment return, price inflation, and general wage increase downward, 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. In 2019, amounts reported resulted mainly from downward adjustments to the assumed investment rate, price inflation, and general wage increases.

**SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS OF PARTICIPATING EMPLOYERS
(CONTINUED)**

For the Fiscal Years Ended June 30	2016	2015	2014
Total Pension Liability			
Service cost	\$ 96,308,679	\$ 90,955,831	\$ 87,512,515
Interest on total pension liability	290,843,506	272,953,777	265,430,896
Effect of assumption changes or inputs	85,538,873	-	37,853,852
Effect of economic/demographic gains (losses)	17,875,272	50,655,233	(31,415,241)
Benefit payments and refund of contributions	(182,863,698)	(171,466,218)	(162,556,107)
Net change in total pension liability	307,702,632	243,098,623	196,825,915
Total pension liability, beginning	3,946,439,845	3,703,341,222	3,506,515,307
Total pension liability, ending (a)	<u>\$ 4,254,142,477</u>	<u>\$3,946,439,845</u>	<u>\$3,703,341,222</u>
Fiduciary Net Position			
Employer contributions	\$ 191,094,488	\$ 180,704,280	\$ 202,877,362
Member contributions	56,068,706	48,011,698	46,593,698
Investment income net of investment expenses	29,299,764	111,630,036	482,663,965
Benefit payments and refund of contributions	(182,863,698)	(171,466,218)	(162,556,107)
Administrative and technology expenses	(6,687,091)	(6,097,422)	(5,710,296)
Net change in plan fiduciary net position	86,912,169	162,782,374	563,868,622
Fiduciary net position, beginning	3,454,476,328	3,291,693,954	2,727,825,332
Fiduciary net position, ending (b)	<u>\$ 3,541,388,497</u>	<u>\$3,454,476,328</u>	<u>\$3,291,693,954</u>
Net pension liability, ending = (a) - (b)	\$ 712,753,980	\$ 491,963,517	\$ 411,647,268
Fiduciary net position as a % of total pension liability	83.25%	87.53%	88.88%
Covered payroll	\$ 472,384,955	\$ 439,017,764	\$ 416,273,731
Net pension liability as a % of covered payroll	150.88%	112.06%	98.89%

Note: *Change of assumptions.* In 2014, amounts reported as changes of assumptions resulted primarily from downward adjustments to the assumed investment return, price inflation, and general wage increase; and several changes in demographic assumptions including a slight reduction in retirement rate, a slight update to the probability of eligible survivors, and an adjustment of the expected age difference between member and survivor for female numbers. In 2016, amounts reported as changes of assumptions resulted mainly from downward adjustments to the assumed investment return, price inflation, and general wage increase with intent to strengthen the financial position and the stability of the Retirement Fund by mitigating any impacts if future returns were lower than current expectations.

SCHEDULE OF EMPLOYER CONTRIBUTIONS

Last Ten Fiscal Years

This schedule provides information about the statutory and actual contributions of all participating employers.

Fiscal Year Ended June 30	Actuarially Determined Contribution	Actual Employer Contribution	Contribution Deficiency (Excess)	Covered Payroll ¹	As a % of Covered Payroll	
					Actuarially Determined Contribution	Actual Employer Contribution
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% ²
2013	131,293,846	144,308,171	(13,014,325)	404,360,891	32.47%	35.69% ²
2014	152,877,362	202,877,362	(50,000,000)	416,273,731	36.73%	48.74% ³
2015	169,814,170	180,704,280	(10,890,110)	439,017,764	38.68%	41.16% ³
2016	170,046,059	191,094,488	(21,048,429)	472,384,955	36.00%	40.45% ^{3,4}
2017	164,877,135	198,727,135	(33,850,000)	510,132,014	32.32%	38.96% ^{3,4}
2018	179,626,584	207,256,713	(27,630,129)	535,937,622	33.52%	38.67% ³
2019	194,830,054	245,498,411	(50,668,357)	554,734,196	35.12%	44.26% ^{3,5}

¹ In accordance with GASB Statement No. 82, covered payroll is the payroll on which contributions are based.

² Employers contributed at a higher rate than the Actuarially Determined Contribution rate in order to maintain more stable contributions.

³ In 2014, the County of San Mateo (the County) Board of Supervisors implemented a policy to eliminate the County's unfunded actuarial accrued liabilities (UAAL) by 2023. Contributions in excess of the Actuarially Determined Contributions are related to that policy unless noted otherwise.

⁴ 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.

⁵ In 2019, the County increased its supplemental contributions to accelerate the payoff of its UAAL.

SCHEDULE OF INVESTMENT RETURNS

For the Fiscal Years Ended June 30

The time-weighted rate of return measures a fund's compounded rate of growth over a specific time period, whereas 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 the past ten fiscal years. Additional years will be displayed as they become available prospectively.

	2019	2018 ³	2017	2016	2015	2014
Annual time-weighted rate of return, net of investment manager expenses ¹	5.40%	6.70%	12.58%	0.74%	3.53%	17.29%
Annual money-weighted rate of return, net of investment manager expenses ^{1,2}	5.26%	6.53%	12.48%	0.49%	3.37%	17.22%

¹ The rates of return were independently determined by SamCERA's investment consultant, Verus Advisory, Inc.

² Rates of return for prior years may be subject to minor revisions as needed.

³ Due to underperformance in public equities (primarily international equities) and alternatives (with primary impact from absolute return and secondary impact from private equity), the overall investment return slipped from 12.58% for 2017 to 6.70% for 2018.

NOTES TO THE REQUIRED SUPPLEMENTARY INFORMATION

Actuarial Valuation Methods and Assumptions

The employer statutory contribution rates for the fiscal year ended June 30, 2019, are determined by the actuarial valuation as of June 30, 2017. Details of actuarial methods and assumptions selected for the 2017 valuation are summarized on the next page.

Changes in Assumptions

In June 2014, the Board of Retirement (the Board) approved its actuary's recommendations changing certain key economic assumptions for the 2014 valuation. These changes include lowering the assumed investment return from 7.50% to 7.25%, the price inflation from 3.25% to 3.00%, and the general wage increase from 3.75% to 3.50%. A month later in July 2014, the Board also approved several changes in demographic assumptions based on the 2014 Triennial Experience Study. The key changes include a slight reduction in retirement rate, a slight update to the probability of eligible survivors, and an adjustment of the expected age difference between member and survivor for female numbers. These changes increased the expected contribution rates and decreased the funded ratio of the Retirement Fund.

In June 2016, the Board reduced the assumed investment return from 7.25% to 7.00%, the price inflation from 3.00% to 2.75%, and the general wage increase from 3.50% to 3.25% for the 2016 valuation. These changes were specifically tailored to strengthen the financial position and the stability of the Retirement Fund by mitigating any impacts if future returns were lower than current expectations.

In July 2017, the Board adopted several recommendations from the 2017 Triennial Experience Study, which included 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 assumed investment return was changed from 7.00% to 6.75%, the price inflation from 2.75% to 2.50%, and the general wage increase from 3.25% to 3.00% for the 2017 valuation. The new mortality assumption resulted in an increase in assumed life expectancy compared to the prior assumption.

In July 2019, the Board adjusted the assumed investment return from 6.75% to 6.50%, the price inflation from 2.75% to 2.50%, and the general wage increase from 3.25% to 3.00% for the 2019 valuation. These changes will increase the contribution rates effective July 1, 2020, and decreased the funded ratio of the Retirement Fund by 1.70% to 85.80% as of June 30, 2019.

ACTUARIAL VALUATION AS OF JUNE 30, 2017 (FOR FUNDING PURPOSES)

VALUATION DATE	June 30, 2017
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	6.75%, net of pension plan investment and administrative expenses
Inflation rate (CPI)	2.50%
General wage increase	3.00%
DEMOGRAPHIC ASSUMPTIONS	
Salary increases due to service	See June 30, 2017 actuarial valuation report for details.
Retirement	See June 30, 2017 actuarial valuation report for details.
Disablement	See June 30, 2017 actuarial valuation report for details.
Mortality	See June 30, 2017 actuarial valuation report for details.

SUPPLEMENTARY INFORMATION

SCHEDULE OF ADMINISTRATIVE EXPENSES

For the Fiscal Year Ended June 30, 2019

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	\$ 3,087,464
Benefits	1,619,211
Total Salaries & Benefits	<u>4,706,675</u>

Services & Supplies

Board Expenses	4,800
Insurance	62,075
Medical Evaluation	21,215
Member Education	55,927
Education & Conference	124,529
Transportation & Lodging	91,851
Property & Equipment	15,865
General Office Supplies	30,210
Postage, Printing & Copying	18,801
Leased Facilities	535,120
County Services	297,556
Audit Services	54,914
Other Administration	37,175
Total Services & Supplies	<u>1,350,038</u>
Total Administrative Expenses	<u><u>\$ 6,056,713</u></u>

SCHEDULE OF INFORMATION TECHNOLOGY EXPENSES

For the Fiscal Year Ended June 30, 2019

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

Property and Equipment	\$ 15,315
Information Technology Infrastructure	1,645,708
County ISD Support	5,060
Research & Development	4,824
Depreciation Expense	824,357
Total Information Technology Expenses	<u><u>\$ 2,495,264</u></u>

SCHEDULE OF INVESTMENT EXPENSES*For the Fiscal Year Ended June 30, 2019*

The schedule below summarizes the investment expenses incurred by SamCERA during the reporting period.

Investment Management Fees (by Asset Class)	
Public Equity	\$ 3,812,278
Fixed Income	4,593,057
Alternatives	5,489,954
Risk Parity	1,310,294
Inflation Hedge	5,805,281
Cash	175,612
Total Investment Management Fees	<u>21,186,476</u>
Other Investment Expenses	
Investment Consultant	483,797
Actuarial Consulting	94,500
Master Custodian	330,000
Other Professional Services	46,500
Total Other Investment Expenses	<u>954,797</u>
Other Investment Related Expense	16,952,467
Interest Paid on Prepaid Contribution	<u>3,282,817</u>
Total Investment Expenses	<u>\$ 42,376,557</u>

SCHEDULE OF PAYMENTS TO CONSULTANTS (OTHER THAN INVESTMENT ADVISORS)*For the Fiscal Year Ended June 30, 2019*

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

Custodian Services	
Northern Trust Corporation	\$ 330,000
Actuarial Consulting Services	
Milliman, Inc.	94,500
Audit Services ⁽¹⁾	
Brown Armstrong Accountancy Corporation	54,914
Other Professional Services	46,500
Total Payments to Consultants	<u>\$ 525,914</u>

(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. Thus, SamCERA's information technology expenses have been 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 the following:

"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)

June 30, 2019

	Deferred Outflows of Resources				Deferred Inflows of Resources				Pension Expense Excluding That Attributable to Employer-Paid Member Contributions		
	Differences Between Expected and Actual Economic Experience	Net Differences Between Projected and Actual Earnings on Pension Plan Investments	Changes of Assumptions	Proportionate Share of Contributions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Pension Expense	Differences Between Expected and Actual Economic Experience	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Pension Expense	Total Deferred Outflows of Resources	Total Deferred Inflows of Resources	Proportionate Share of Pension Expense	Proportionate Share of Pension Expense Excluding That Attributable to Employer-Paid Member Contributions
Employer											
County of San Mateo	\$ 593,495,172	\$ 91,719,975	\$ 1,767,187	\$ 202,698,760	\$ 2,749,847	\$ 298,935,769	\$ -	\$ -	\$ 133,053	\$ 234,379,514	\$ 1,110,996
											\$ 235,490,510
San Mateo Superior Court	21,132,445	3,265,852	62,924	7,217,448	-	10,546,224	-	2,625,474	2,625,474	8,345,497	(1,348,478)
San Mateo County Mosquito & Vector Control District	1,478,655	228,514	4,403	505,011	403,329	1,141,257	-	394,649	394,649	583,941	237,482
Total	\$ 616,106,272	\$ 95,214,341	\$ 1,834,514	\$ 210,421,219	\$ 3,153,176	\$ 310,623,250	\$ -	\$ 3,153,176	\$ 3,153,176	\$ 243,308,952	\$ -

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

Employer	Fiscal Year Ended June 30, 2019		Employer Allocation Percentage	Net Pension Liability
	Actual Employer Contributions	Actuarially Determined Contributions		
County of San Mateo	\$238,354,563	\$187,686,206	96.33%	\$ 593,495,172
San Mateo County Superior Court	6,677,457	6,677,457	3.43%	21,132,445
San Mateo County Mosquito & Vector Control District	466,391	466,391	0.24%	1,478,655
Total	\$245,498,411	\$194,830,054	100.00%	\$ 616,106,272

Note: Employer allocation percentage (or proportionate share) 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, 2019, and (4) the GASB Statement No. 68 Actuarial Valuation based on a June 30, 2019 Measurement Date for Employer Reporting as of June 30, 2020; in accordance with generally accepted accounting principles (GAAP) 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 the above documents, in conformity with GAAP, 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. The remaining difference between projected and actual investment earnings on pension plan investments at June 30, 2019 is to be amortized over the remaining periods.

Changes of assumptions or other inputs and differences between expected and actual experience are recognized over the average of the expected remaining service lives of all employees, both active and deferred, that are provided with pensions through SamCERA as of June 30, 2018 (the beginning of the measurement period ended June 30, 2019).

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, 2019, 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







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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, 2019. This data was compiled by SamCERA's investment staff, its investment consultant, Verus Advisory, Inc. (Verus) and its custodian bank, Northern Trust Corporation. All return figures are presented net of investment manager fees, are time-weighted, and are calculated by SamCERA's investment consultant, Verus.

Portfolio Performance

SamCERA's portfolio market value increased to \$4.72 billion as of June 30, 2019, as the net combination of portfolio appreciation and contributions, less total deductions (i.e., benefits paid, administrative expense, etc.), added approximately \$349 million to the fund.

SamCERA's portfolio returned 5.4% net of investment management fees for the fiscal year ended June 30, 2019, underperforming SamCERA's policy benchmark return by 1.3%. This fiscal-year performance resulted in near median performance relative to SamCERA's peers, as defined by large (greater than \$1 billion in assets) public plans. Table One below shows net performance characteristics for the total fund over 1, 3, 5, and 10- year trailing periods ending June 30, 2019. Despite plan underperformance in the past two fiscal years, longer-term results show above median returns over longer timeframes (namely the 5 and 10-year periods).

Return/Risk Measure

As described in the Investment Objectives section of SamCERA's Investment Policy Statement, SamCERA focuses on "risk-adjusted" returns to compare how much return was generated given the risk (measured by standard deviation of returns) taken to achieve that return. This is typically measured as the Sharpe Ratio. The higher the ratio, the better, as it measures the return provided per unit of risk taken. For example, if a fund has a lower return than the benchmark but also a much lower risk level (as measured by standard deviation of returns), it may result in a higher risk-adjusted outcome. Conversely, if a fund has a higher return but also takes higher than commensurate risk than the benchmark, then its risk-adjusted return may be lower than that of the benchmark. Underperformance in the past two fiscal years has resulted in a lower risk-adjusted return relative to the benchmark over the trailing one and three-year periods. Over longer-term periods, SamCERA had a similar risk-adjusted return relative to the benchmark.

Table One: SamCERA Total Fund Net Performance Characteristics Ended June 30, 2019

	1 Year	3 Years	5 Years	10 Years
SamCERA Return	5.4%	8.2%	5.7%	9.3%
Benchmark Return	6.7%	9.0%	6.1%	9.7%
Excess Return	(1.30)%	(0.80)%	(0.40)%	(0.40)%
Peer Rank Return (Percentile)	52nd	79th	48th	40th
SamCERA Risk (Standard Deviation)	8.8	5.9	6.5	8.1
Benchmark Risk (Standard Deviation)	8.7	6.0	6.8	8.5
SamCERA Sharpe Ratio	0.4	1.1	0.8	1.1
Benchmark Sharpe Ratio	0.5	1.3	0.8	1.1

Table Two below shows the current allocation and the primary composite relative returns for the year ending June 30, 2019.

All five of SamCERA's asset class composites provided positive returns for the year. Risk Parity was the best performing composite and returned 10.8%, while Inflation Hedge returned 2.5% and was the lowest returning asset class composite. Fixed Income returned 6.7%, while Public Equity and Alternatives returned 4.8% and 4.6%, respectively.

Alternatives, while providing positive *absolute* returns, was the overwhelming main detractor in terms of *relative* performance versus the benchmark (primarily from hedge funds/absolute return). Fixed Income and Inflation Hedge also detracted, while Risk Parity outperformed during the year.

Table Two: SamCERA Composite Net Performance for Trailing Year Ended June 30, 2019

Composite	Allocation (%)*	Composite Return	Benchmark Return	Excess Return
Public Equity	41.4	4.8%	5.0%	-0.2%
Fixed Income	21.0	6.7%	8.5%	-1.8%
Alternatives	11.4	4.6%	9.5%	-4.9%
Risk Parity	17.4	2.5%	4.3%	-1.8%
Inflation Hedge	8.3	10.8%	7.3%	3.5%

* Cash balance was 0.5% as of June 30, 2019.

Market Review

It was a topsy-turvy fiscal year with an equity market correction sandwiched between generally modest positive performance for most risk assets. Early in the fiscal year, risk assets performed well as economic activity hummed along (especially in the U.S.) and the U.S. Federal Reserve (the Fed) continued raising short-term interest rates. During the 4th quarter of 2018, risk assets sold off globally as concerns of the Fed raising rates too quickly, along with geopolitical and general global growth concerns, sent investors fleeing for defensive assets. During the two subsequent quarters, lower global growth prospects coupled with low inflation readings led the Fed to pause its interest rate increases and signal future rate cuts.

U.S. equities, like the prior fiscal year, again provided relatively strong returns, as U.S. growth prospects have generally been favorable, especially compared to the rest of the developed world. U.S. economic growth has been generally steady, assisted in part by the remaining effects of the fiscal stimulus provided by the passage of the Tax Cuts and Jobs Act last year. The strong equity performance came despite several events through the year, including elevated geopolitical risks, concerns over potential trade war implications, and recent heightened concerns about the strength of the global economy.

The broad U.S. equity market, as measured by the Russell 3000 Index, a broad basket of U.S. stocks, returned 9.0% during the year. Large-capitalization stocks in the U.S. (as measured by the Russell 1000 Index) were higher by 10.0%, while smaller-capitalization stocks (as measured by the Russell 2000 Index) were negative, returning -3.3% for the year. In terms of sector performance, financials (up 7.6%) provided the highest return, followed by consumer discretionary and technology. Energy (down -3.8%) performed the worst and was the only sector that had negative performance over the fiscal year.

The broad international equity market also had positive results during the fiscal year, but less than the returns generated in the U.S. equity markets. The developed international market, as measured by the MSCI EAFE (Morgan Stanley Capital Investment Europe, Australasia, and Far East Index), was up 1.1%, while emerging market equity, as measured by the MSCI Emerging Markets Index, returned 1.6%.

The U.S. Federal Reserve raised short-term interest rates two times early in the fiscal year, as the U.S. economy continued its generally steady growth. Due to sluggish global economic conditions (along with low inflation readings), the Fed paused its interest rate hike cycle during the second half of the fiscal year and communicated rate cuts in the future (the U.S. Federal Reserve did in fact lower rates by 25 basis points in July). The target Fed Funds Rate range is now (after the July rate cut) between 2.00 to 2.25%, up from 1.75 to 2.00% at the beginning of the fiscal year.

Longer-term interest rates decreased during the year. The 10-year U.S. Treasury yield decreased 0.86% during the fiscal year, ending at 2.00%, down from the 2.86% rate at the beginning of the year. These interest rate movements have resulted in a flatter yield curve (which occurs when the yield spread between the Treasury's two- and 10-year notes narrows), as well as a yield curve inversion, which occurs when longer-term interest rates are expected to be lower than shorter-term interest rates. This type of yield curve environment historically may be a prelude to a weaker economy and has generally preceded future recessions.

Performance across fixed income sectors was generally positive due to the lower interest rates during the year. The broad U.S. bond market (as measured by the Bloomberg Barclays Aggregate Index) returned 7.9% on the year, while long-duration Treasuries returned 12.3%. High yield bonds returned 7.5% as wider high yield spreads (higher by 20 basis points) offset some of the positive impact of lower interest rates.

Portfolio Changes

During the second half of 2018, SamCERA implemented the target policy portfolio changes that the Board approved during its annual asset allocation review. SamCERA funded two new low-volatility equity mandates and implemented a currency hedge program. The currency hedge program will be legged into by increasing the hedge ratio at 10% increments on a quarterly basis until a 50% target ratio is reached, which is expected by the end of the third quarter of 2019. In addition, SamCERA funded a new public real asset mandate and made a commitment to a private credit mandate.

SamCERA held its annual retreat in April, during which much discussion was focused on plan maturity and how SamCERA is becoming a more mature plan (with larger numbers of inactive participants versus active participants and the expectation of the plan becoming cash flow negative within the next five years). SamCERA will take this into account as potential changes to its investment profile are addressed starting with the upcoming asset liability study, which is expected to be completed by the fourth quarter of 2019.

For the year, SamCERA made commitments to three new private equity partnerships, totaling \$50 million. This brings the total commitments for the private equity program to \$457.9 million across venture capital, buyouts, and special situations.

SamCERA made commitments worth \$55 million to two new partnerships in its private real asset program, bringing total commitments to \$204.8 million.

Subsequent to the end of the fiscal year, SamCERA committed \$30 million to a new partnership in its real estate category.

Conclusion

With the backdrop of potentially more divergent growth prospects (and the resulting divergent policy responses) across the globe, SamCERA continues to be mindful of higher potential return volatility caused by a potential policy misstep. Moreover, given that we are most likely in the late stages of the economic cycle, and with record high equity prices in the U.S., we believe that it is extremely important in this environment to understand the risks one is taking in generating the return stream they are receiving from their portfolio. With that thought in mind, SamCERA continues to actively rebalance the portfolio to its long-term policy asset allocation weights 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, 2019

INVESTMENT CONSULTANT'S REPORT ON INVESTMENT ACTIVITIES



September 6, 2019

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

Dear Board Members:

Markets Review

U.S. Equity

U.S. equities delivered strong returns over the trailing 1-year period ending in June; the S&P 500 Index returned +10.4%, weathering a healthy degree of volatility along the way. Last December, trade uncertainty and a decision from the Federal Reserve to hike interest rates helped to spark a -19.8% decline in the S&P 500 Index from previous peak levels, just shy of the -20.0% drawdown that indicates a technical bear market. Year-to-date, U.S. large-cap equities have led global equity markets higher, and the S&P 500 Index advanced +18.5%, nearly recovering from the selloff at the end of 2018.

In recent decades, equity and bond markets have benefited from Federal Reserve support during periods of market stress. In late 2018 and the first half of 2019 some weakness appeared in the U.S. economy and markets grew shaky. During this time the Fed stepped in, indicating much easier monetary policy, which has boosted asset prices. Many investors have expressed concern regarding the level of the current (cycle-high) fed funds range relative to past business cycle highs. This has left many to ask how impactful further central bank easing might be as U.S. interest rates approach zero.

A variety of secular trends have helped cultivate a supportive environment for U.S. stocks. Technological advances, lower interest rates, and falling corporate tax rates have all helped to boost corporate profit margins to record highs. As earnings expectations moderate, these margins may be increasingly scrutinized by investors. Per FactSet, the estimated year-over-year revenue and earnings growth for the S&P 500 Index in the second quarter are +3.7% and -3.0% respectively. At the end of the first quarter, expectations called for revenue and earnings growth of +4.5% and -0.5%, respectively, indicating that analysts' expectations fell markedly over the second quarter.

International Equity

International equities underperformed domestic stocks as U.S. exceptionalism remained the story. For the year ending June 30th, 2019, the S&P 500 Index delivered a +10.4% return, outpacing the MSCI ACWI Index (+5.7%), the MSCI Emerging Markets Index (+1.2%), and the MSCI EAFE Index (+1.1%). Within emerging market equities, Latin American equities (MSCI EM Latin America +18.4%) diverged from Asian equities (MSCI EM Asia -2.3%), likely aided by lower levels of economic exposure to the Chinese economy, which in Q2 grew only +6.2% from the prior year, its lowest rate since 1992.

Interest rate differentials between U.S. Treasuries and sovereign bonds in Europe and Japan widened as the Federal Reserve hiked rates while the European Central Bank and the Bank of Japan held rates

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steady. Expanding interest rate differentials likely contributed to the strength of the U.S. dollar over the period, which presented headwinds for unhedged investors in international equities. The only major international developed currency which strengthened vs. the dollar over the trailing year was the Japanese yen. The yen firmed up +2.8% relative to the dollar, mostly due to risk-off currency flows during the market selloff in the 4th quarter of 2018, where international investors sought safe-haven in the Japanese currency. Elsewhere, the British pound sterling weakened as uncertainty surrounding Brexit continued to drive trading in the currency.

Fixed Income

Late last year, the Federal Reserve tightened monetary policy further with 0.25% rate hikes in September and December, bringing the target range for federal funds to 2.25% - 2.50%. In December, escalating geopolitical tensions and expectations for slowing global growth weighed on market sentiment, and despite the Fed cutting its guidance for additional rate hikes in 2019 from three to two, markets sold off. Moving into 2019, the Fed pivoted to a much more dovish stance, starting by clarifying its "patient approach" to future rate hikes, walking back its previous commitment to "further gradual increases". In March, the Fed announced its balance sheet "normalization" process would unwind faster than originally anticipated, which effectively eased financial conditions by creating additional market liquidity. Finally, in June the Fed pledged to "act as appropriate to sustain the expansion", an initiative unsupported by the Fed's mandate targeting maximum employment, stable prices, and moderate long-term interest rates. Analysts viewed the Fed's language as effective in preparing markets for a 0.25% cut during its July meeting, and perhaps another 0.25%-0.50% in cuts by the end of the calendar year.

The shift to more accommodative monetary policy is not a phenomenon unique to the Fed – the European Central Bank, the Bank of Japan, and others have also changed their tune, citing benign inflation pressures and an uncertain geopolitical backdrop as justification for lower rates. Still, with U.S. unemployment near 50-year lows and equities near all-time highs, some analysts have expressed concern over the strength of the Fed's stimulus measures should a recession rear its head.

Falling ten-year sovereign yields were one of the biggest stories driving markets over the year. Ten-year Treasury yields reached as high as +3.2% in November but ended Q2 2019 at +2.0%. Long-duration U.S. Treasuries were top performers in the U.S., gaining +12.3% over the year and benefitting from precipitous declines in yields. Hard-currency emerging market debt (+12.4%) was the top fixed income performer over the year, and outperformed local-currency EMD (+9.0%), mostly due to a period of emerging market currency weakness last summer. In Europe, yields on many ten-year sovereign bonds established fresh all-time lows with German yields falling from 0.3% to -0.3% and French yields falling from 0.7% to 0.0%. In Italy, yields fell from 2.6% to 2.1%, but spiked as high as 3.6% in the fourth quarter of last year due to concerns that the sitting coalition government would not respect the fiscal budget deficit limits enforced by the European Union. Over the year, the value of global negative-yielding debt rose from \$8.16 trillion to \$12.92 trillion.

In U.S. credit, high yield and investment grade spreads remained near cycle tight at 3.77% and 1.15%. The BBgBarc U.S. High Yield Corporate Index and BBgBarc U.S. Agg Corporate Index returned 7.5% and 7.9% over the period, respectively.

PLAN INVESTMENT RESULTS

The San Mateo County Employees' Retirement Association (the Association) total Plan returned 5.4% net of fees for the fiscal year ended 6/30/19. The total Plan underperformed its policy index which returned 6.7% for this time period. For the fiscal year, the total Plan ranked in the 52nd percentile for Public Fund Defined Benefit Plans greater than \$1 billion. SamCERA has positioned itself as a more

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conservative Plan than most of the peer group by having lower equity exposure in the portfolio. The biggest drivers of fiscal year performance for the Plan on an absolute basis came from Private Equity and Risk Parity. On an absolute and relative basis, Private Real Assets and Absolute Return investments were the biggest drivers of underperformance for the fiscal year.

The U.S. Equity portfolio underperformed its U.S. equity policy benchmark by 1.5% on a net of fee basis during the fiscal year (7.5% versus 9.0% for the composite benchmark, respectively), which placed it in the 58th percentile of the peer universe. Within U.S. Equity, SamCERA's Large Cap composite was in line with its benchmark (10.0% vs. 10.0% for the Russell 1000 Index) and ranked in the 40th percentile of the peer universe. The Small Cap composite lost -7.4%, underperforming the Russell 2000 Index (-3.3%). The Small Cap portfolio uses a single quantitative, low tracking error manager with a factor-based approach. During a year where the value factor continued to underperform significantly, Small Cap experienced stylistic headwinds. Over the fiscal year, SamCERA added two low volatility equity managers to add more defensiveness within the U.S. equity portfolio.

During the fiscal year, the International Equity Composite outperformed its composite benchmark, returning 1.7% net of fees compared to 0.4% for the MSCI ACWI ex-US IMI Index (50% hedged). This result ranked in the 23rd percentile of the peer group. The Plan's active developed international growth manager underperformed its style benchmarks during the fiscal year, while the international value manager outperformed. The Plan's emerging markets portfolio beat its benchmark (3.2% vs. 1.6% for the MSCI Emerging Markets Index) because of the manager's structural underweight to China which benefited the portfolio during the period. Over the fiscal year, SamCERA introduced currency hedging in developed markets to lessen currency risk and better manage its risk budget. Currency hedging was additive to returns during a fiscal year where the U.S. dollar was strong.

In fiscal year 2019, the Plan's Total Fixed Income Composite net return of 6.7% lagged the Blended Fixed Income benchmark return of 8.5%. The core fixed income, opportunistic credit, and private credit components of the portfolio detracted from returns on a relative basis. However, all components of the bond portfolio had strong absolute returns for the fiscal year of 6.9%, 6.3% and 6.6%, respectively. SamCERA's Fixed Income portfolio is conservatively positioned compared to its underlying composite benchmark. Angelo Gordon's securitized portfolios performed strongly during the period (22.3% for STAR, 12.0% for OWL). The Plan continued to fund its private credit investments during the fiscal year as a means of generating returns from contractual yield from underlying loans which are less directly correlated with interest rate changes.

SamCERA's Risk Parity component of the portfolio beat its benchmark during the fiscal year (10.8% net of fees versus 7.3% for the 60% MSCI World/40% Bloomberg Barclays Global Aggregate blended benchmark). The Risk Parity managers did well in an environment of strong equity and fixed income returns. SamCERA is evaluating the role of Risk Parity in the portfolio as part of its asset-liability study.

SamCERA's Alternatives portfolio, comprised of Private Equity and Absolute Return strategies, underperformed for the year ended June 30, 2019 (4.6% versus 9.5% for the composite benchmark). The Private Equity portfolio outperformed on a time-weighted basis (14.6%) versus the Russell 3000 + 3% 1 quarter lagged index (11.8%). The Absolute Return composite returned -5.9% compared to 6.4% for London Interbank Offered Rate (LIBOR) + 4%. This poor return was predominantly driven by the underperformance of AQR DELTA, which continued to struggle due to its reliance on value factor measures used in its quantitative approach. SamCERA is reviewing its Absolute Return structure and may further diversify its investments in this portion of the portfolio.

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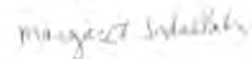
Over the fiscal year, SamCERA's Inflation Hedge portfolio, comprised of real estate, private real assets, a liquid real asset pool (publicly listed infrastructure, commodities, and natural resources) and TIPS returned 2.5% compared to 4.8% for the blended inflation Hedge index. The Real Estate component provided a solid return of 7.0%, ranking in the top quartile in the peer group (21st percentile) and above the National Council of Real Estate Investment Fiduciaries Open-End Diversified Core Equity (NCREIF ODCE) index (6.4%). The liquid real asset pool, a liquid proxy which is used as a funding vehicle for private real assets rose 1.1%, matching its blended benchmark. Private Real Assets underperformed its benchmark (-6.0% vs. 7.6% for the 50/50 S&P Global Infrastructure and Large-Mid Cap Commodities & Resources + 2% 1 quarter index lagged), driven by poor performance from a single manager.

ASSET ALLOCATION AND MANAGER STRUCTURE

Over the fiscal year ended 6/30/19, the Plan lowered its actuarial rate of return to 6.5%. SamCERA's asset allocation has remained the same during the fiscal year pending an Asset Liability Study to be conducted in fiscal year 2020. As part of the study, the Board will consider making strategic updates to the Plan's asset allocation with the goal of continuing to reduce volatility as the Plan matures.

In summary, SamCERA's defensive positioning resulted in underperformance versus the policy benchmark for FY 2019. This positioning will lag in strong up markets but will help preserve capital in down markets. We believe that SamCERA has constructed a diversified portfolio that will continue to serve its participants well over longer time periods.

Sincerely,


Margaret S. Jadallah

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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 or 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. 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).

- C. 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 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.

INVESTMENT SUMMARY

The investment summary reports the fair value and the percentage of the portfolio's total fair value for each major type of investment.

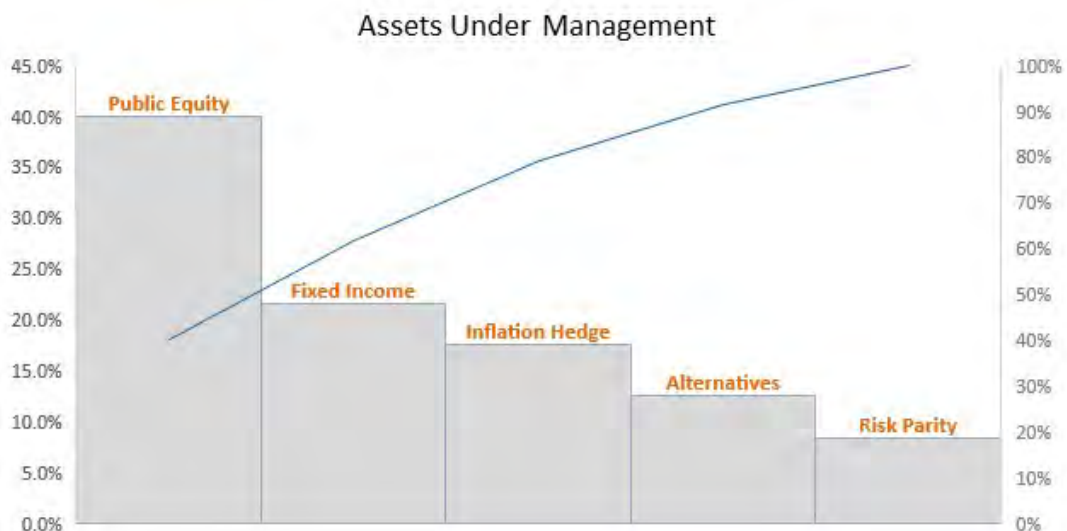
INVESTMENT SUMMARY

June 30, 2019

ASSET CLASS	Assets Under Management	Percentage
Public Equity	\$ 1,847,846,613	40.0%
Fixed Income	999,477,347	21.6%
Alternatives	579,774,460	12.5%
Risk Parity	389,039,081	8.4%
Inflation Hedge	809,138,278	17.5%
Total Net Portfolio Value	\$ 4,625,275,779	100.0%

RECONCILIATION TO STATEMENT OF FIDUCIARY NET POSITION

Total Net Portfolio Value	\$ 4,625,275,779
Cash Equivalents	81,517,010
Receivables	23,340,848
Prepaid Expense	11,669
Capital Assets, Net of Depreciation	5,979,197
Payables	(13,014,568)
Fiduciary Net Position as of June 30, 2019	\$ 4,723,109,935



ASSET ALLOCATION

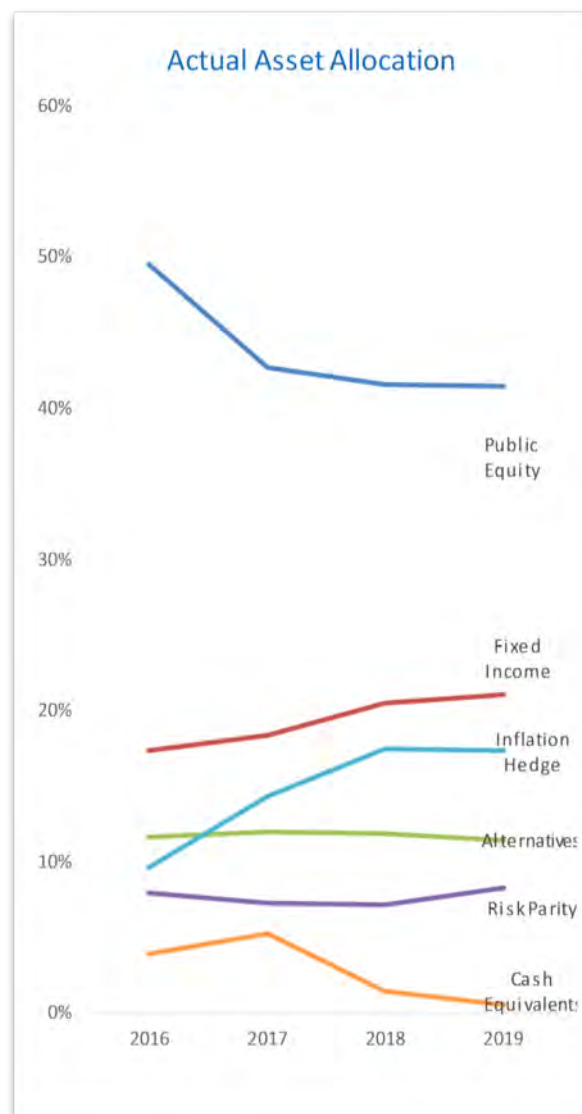
ASSETS ALLOCATION AS A PERCENTAGE OF FAIR VALUE

June 30, 2019

Asset Class	Target Policy	Interim Policy	Actual
Public Equity	37%	41%	41.4%
Fixed Income	23%	21%	21.0%
Alternatives	12%	12%	11.4%
Risk Parity	8%	8%	8.3%
Inflation Hedge	20%	18%	17.4%
Cash Equivalents	0%	0%	0.5%
Total	100%	100%	100.0%

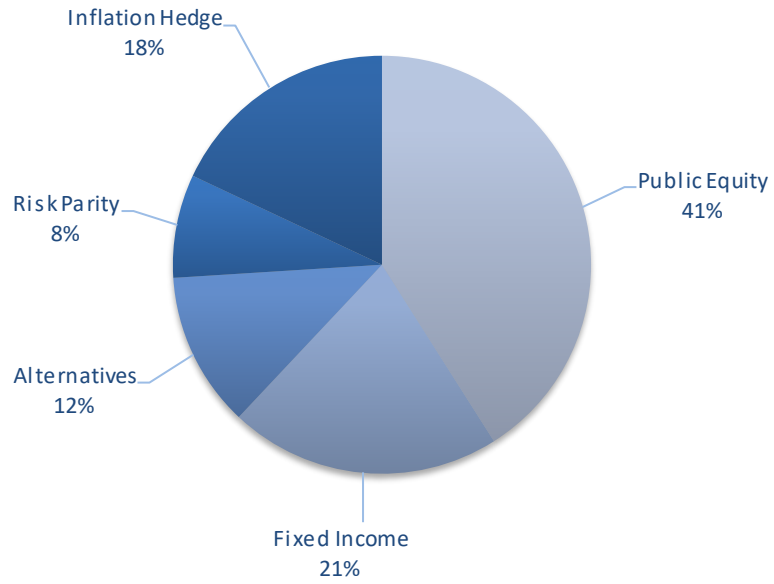
During the fiscal year, SamCERA continued to make progress towards the asset allocation policy that was last approved by the Board in the prior fiscal year’s asset allocation review. SamCERA funded two new low-volatility equity mandates and one public real assets mandate, and also made commitment to one new partnership within its fixed income category. Implementation of the last phase of the currency hedge program for developed international equity is anticipated to be completed by September 30, 2019.

As of June 30, 2019, the target asset allocation incorporated into SamCERA’s Investment Policy and detailed in the Investment Section only reflects an “interim” policy allocation, the portion of the newly adopted allocation that has already been implemented. Due to the multi-phased process, SamCERA’s Investment Policy does not capture the new target policy so that the actual allocation does not significantly deviate from policy.

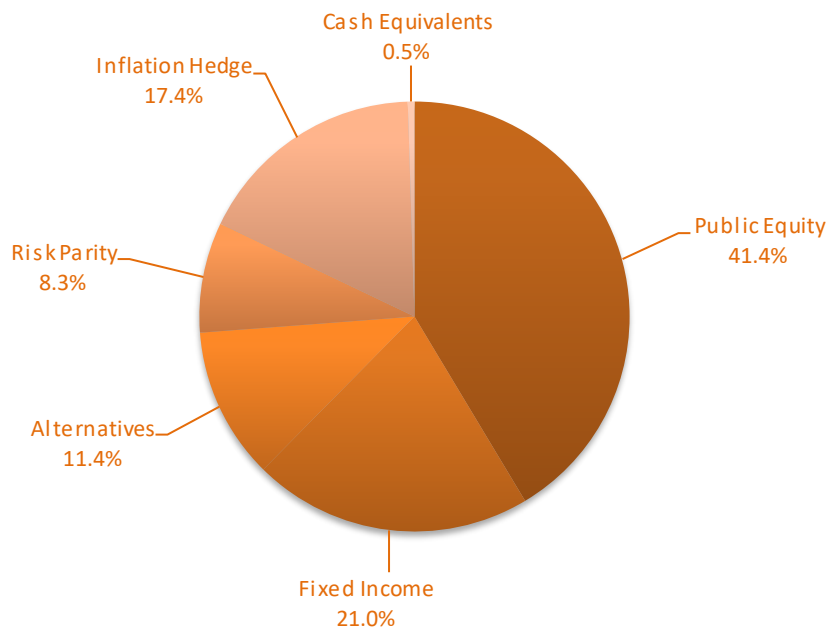


Note: The actual asset allocation figures presented in this section reflect the market value and economic exposure of the plan as of fiscal year-end, and include the allocation effects of the cash overlay and currency hedge programs. There may be differences between these figures and the fair values presented in the Statement of Net Fiduciary Position due to timing and the allocation effects of the cash overlay and currency hedge programs.

**Asset Allocation (Interim Policy)
June 30, 2019**

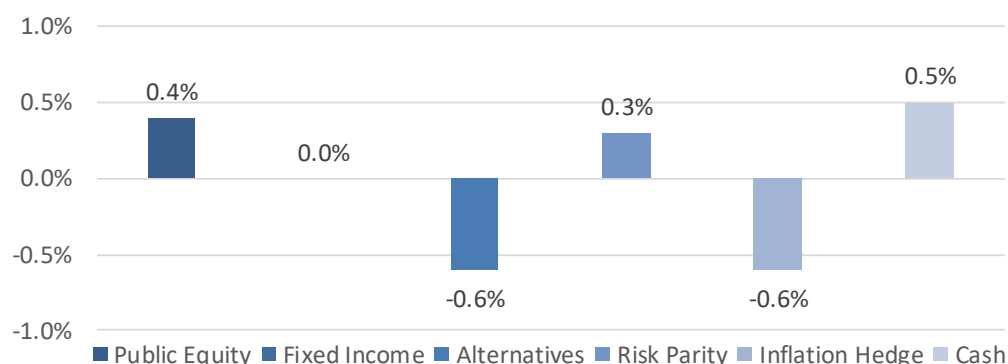


**Actual Asset Allocation
June 30, 2019**



PERCENT OF DEVIATION FROM ASSET ALLOCATION

June 30, 2019



BENCHMARKS

June 30, 2019

Asset Class

PUBLIC EQUITY

Domestic Equity
International Equity

Policy Benchmark

53.7% Russell 3000
32.4% Morgan Stanley Capital International ex-United States Investable Market Indexes (MSCI ex-US IMI)
13.9% Morgan Stanley Capital International ex-United States Investable Market Indexes (MSCI ex-US IMI) 100% Hedged

FIXED INCOME

Domestic Fixed Income
Opportunistic Credit

66.7% Bloomberg Barclays Aggregate (BBgBarc)
33.3% BBgBarc Intermediate High Yield (HY)

ALTERNATIVES

Private Equity
Hedge Funds/Absolute Return

50% Russell 3000 + 3% (1-quarter lag)
50% London Interbank Offered Rate (LIBOR) + 4%

RISK PARITY

60% Morgan Stanley Capital International World
40% BBgBarc Global Aggregate

INFLATION HEDGE

Real Estate

Private Real Asset

Public Real Asset

44.44% National Council of Real Estate Investment Fiduciaries Open-End Diversified Core Equity (NCREIF ODCE)

11.11% Blend: 50% Standard & Poor (S&P) Global Large-MidCap Commodity and Resource + 50% S&P Global Infrastructure + 2% (1-quarter lag)

11.12% Bloomberg Roll Select Commodity
11.11% Standard & Poor (S&P) Global Large-MidCap Commodity and Resource
11.11% S&P Global Infrastructure

TIPS

11.11% Barclays Treasury Inflation Protected Securities (TIPS)

CASH EQUIVALENTS

91-day Treasury-Bills

SCHEDULE OF PORTFOLIO RETURNS

Performance as of June 30, 2019, Net of Fees

Asset Class	Total Time-Weighted Rate of Return ⁽⁶⁾		
	One Year	Three Years	Five Years
PUBLIC EQUITY	4.8%	11.3%	6.8%
Public Equity Benchmark	5.0%	12.0%	6.9%
Domestic Equity	7.5%	13.5%	9.5%
Domestic Equity Benchmark	9.0%	14.1%	10.0%
International Equity	1.7%	8.6%	2.7%
International Equity Benchmark	0.4%	9.4%	2.6%
FIXED INCOME	6.7%	4.9%	3.6%
Fixed Income Benchmark	8.5%	3.5%	3.3%
Core Fixed Income	6.9%	3.2%	3.2%
Core Fixed Income Benchmark	7.9%	2.3%	2.9%
Opportunistic Credit	6.3%	8.3%	5.4%
Opportunistic Credit Benchmark	9.6%	6.3%	4.8%
ALTERNATIVES	4.6%	7.9%	6.1%
Alternatives Benchmark	9.5%	11.2%	6.7%
Private Equity	14.6%	17.4%	16.1%
Private Equity Benchmark	11.8%	15.5%	12.3%
Hedge Funds/Absolute Return	-5.9%	-1.8%	2.2%
Hedge Funds/Absolute Return Benchmark	6.4%	5.6%	5.1%
RISK PARITY	10.8%	7.1%	5.1%
Risk Parity Benchmark	7.3%	8.6%	7.0%
INFLATION HEDGE⁽¹⁾	2.5%	5.0%	*
Inflation Hedge Benchmark	4.8%	5.4%	*
Real Estate ⁽²⁾	7.0%	7.7%	10.0%
Real Estate Benchmark	6.4%	7.6%	9.8%
Private Real Asset ⁽³⁾	-6.0%	-3.1%	*
Private Real Asset Benchmark	7.6%	4.8%	5.0%
Public Real Assets ⁽⁴⁾	-0.9%	*	*
Public Real Assets Benchmark	1.1%	6.0%	5.7%
TIPS ⁽⁵⁾	4.3%	2.6%	1.6%
TIPS Benchmark	4.8%	2.1%	1.8%
CASH EQUIVALENTS	1.3%	1.0%	1.0%
Cash Equivalents Benchmark	2.3%	1.4%	0.9%
TOTAL	5.4%	8.2%	5.7%
Policy Benchmark	6.7%	9.0%	6.1%

(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 of SamCERA's allocation to Alternatives.

(4) The dedicated Public Real Assets were funded October 2016.

(5) Prior to April 1, 2016, TIPS assets were allocated as part of SamCERA's allocation to Fixed Income.

(6) 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 ⁽¹⁾

June 30, 2019

Shares	Company Name	Fair Value
183,223	Microsoft Corp	\$ 19,129,514
104,804	Apple Inc	15,873,579
9,416	Amazon	13,645,102
578,671	UTD O/S Bank NPV	11,039,136
307,585	AT&T Inc	8,999,687
77,403	Johnson & Johnson	8,802,652
134,803	Exxon Mobile Corp	8,596,313
78,204	Chevron Corp	8,463,903
164,368	Verizon Communications	8,126,751
54,409	Facebook Inc	8,035,901
	Total Top 10 Equities	<u>\$ 110,712,538</u>

⁽¹⁾ Securities owned in active commingled vehicles are not included in this schedule.

SCHEDULE OF TOP TEN FIXED INCOME SECURITIES ⁽¹⁾

June 30, 2019

Security	Coupon	Maturity	Fair Value
UNITED STATES TREAS NTS	1.750	4/30/2022	\$ 7,001,167
UNITED STATES TREAS NTS	2.375	8/15/2024	6,948,518
UNITED STATES TREAS	2.250	2/15/2027	6,063,800
UNITED STATES TREAS NTS	2.250	11/15/2025	5,382,861
UNITED STATES TREAS BD	2.375	5/15/2027	4,780,734
UNITED STATES TREAS NTS	2.250	12/31/2023	4,704,427
FNMA CAP DEB ZERO CPN	0.000	10/9/2019	4,491,599
UNITED STATES TREAS NTS	2.250	3/31/2021	4,399,436
UNITED STATES TREAS NTS	2.125	8/15/2021	4,165,030
UNITED STATES TREAS NTS	3.500	5/15/2020	4,051,593
	Total Top 10 Fixed Income		<u>\$51,989,165</u>

⁽¹⁾ Securities owned in active 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, 2019

GROWTH

Domestic Equity

BlackRock
DE Shaw
Quantitative Management Associates
Acadian Asset Management
PanAgora Asset Management

International Equity

Baillie Gifford
BlackRock
Mondrian Investment Partners
Parametric Portfolio Associates

Private Equity

ABRY Partners
Angeles Equity Partners
Bernhard Capital Partners
Catalyst Fund
Cevian Capital
Emergence Capital Partners
General Catalyst Partners
Great Hill 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
PIMCO
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

Public Real Assets

State Street Global Advisors
Cushing Asset Management

Real Estate

Invesco
PGIM

Private Real Assets

Blue Road Capital
CIM Group
EnCap Investments
EQT Fund Management
EverStream Energy Capital Management
LS Power
Quantum Energy Partners
Sheridan Production Partners
Taurus Funds Management

TIPS

Brown Brothers Harriman

RISK PARITY

AQR Capital Management
PanAgora Asset Management

CASH OVERLAY AND CURRENCY HEDGE

Parametric Portfolio Associates

SCHEDULE OF PROFESSIONAL SERVICES AND FEES*For the Fiscal Year Ended June 30, 2019*

	Management Fees	Fair Value
ASSETS UNDER MANAGEMENT		
Public Equity	\$ 3,812,278	\$1,847,846,613
Fixed Income	4,593,057	999,477,347
Alternatives	5,489,954	579,774,460
Risk Parity	1,310,294	389,039,081
Inflation Hedge	5,805,281	809,138,278
Cash Overlay and Currency Hedge	175,612	48,011,505
Total	<u>\$ 21,186,476</u>	<u>\$4,673,287,284</u>
OTHER INVESTMENT EXPENSES		
Investment Consultant	\$ 483,797	
Actuarial Consulting	94,500	
Master Custodian	330,000	
Other Professional Services	46,500	
Total	<u>\$ 954,797</u>	

TOP 10 BROKER COMMISSIONS*Commission per Share Traded, For the Fiscal Year Ended June 30, 2019*

Brokerage Firm	Amount of Commission	Number of Shares Traded	Commission per share
Macquarie Capital (USA)	\$ 36,752	6,189,996	\$0.006
BOFA Securities, Inc	35,960	1,273,422	0.028
Morgan Stanley & Co	32,054	801,346	0.040
RBC Capital Markets, LLC	28,421	5,148,574	0.006
National Financial Markets	25,014	637,539	0.039
Goldman Sachs & Co	21,950	12,274,364	0.002
Citigroup Global Markets Inc	18,526	4,058,150	0.005
Raymond James & Associates, Inc	18,281	457,025	0.040
JP Morgan Securities LLC/JPMC	13,354	581,256	0.023
Wells Fargo Clearing Services LLC	13,270	331,757	0.040
All Other Brokerage Firms	119,822	368,771,780	0.000
Total	<u>\$ 363,404</u>	<u>400,525,209</u>	

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ACTUARIAL SECTION



ACTUARY'S CERTIFICATION



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 USA
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 milliman.com

October 10, 2019

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 relatively 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 funding valuations is shown below:

Valuation Date	Funded Ratio
June 30, 2017	84.3%
June 30, 2018	87.5%
June 30, 2019	85.8%

The funded ratio decreased in the last year due to the change in investment return assumption, lower than expected investment returns in the current year, and salary and payroll increases greater than assumed.

It is our opinion that SamCERA continues in sound financial condition as of June 30, 2019 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. Under SamCERA's funding policy, the employer's contributions are set equal to the 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 that are determined annually. It is the County's intent to make contributions in excess of those required under the funding policy over the next few years. This, combined with SamCERA's short amortization period, is projected to result in the funded ratio increasing towards 100% over the next several years.

The June 30, 2019 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 that were reviewed and adopted by the Board. The demographic assumptions were last reviewed in detail in the triennial investigation of experience study as of April 30, 2017, and adopted by the Board in July 2017. At its meeting on July 16, 2019, the Board adopted an investment return assumption of 6.50% and reaffirmed all other assumptions.

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.



The assumptions and methods used for financial reporting under GASB 67 are the same as the funding assumptions and methods with the following exceptions:

1. The discount rate and investment return assumption of 6.67% 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 using the entry age normal funding method. The actuarial value of assets used in the funding valuation is equal to the market value of assets with a five-year (10 six-month periods) recognition of the difference between expected and actual investment returns. Effective June 30, 2018 all deferred gains and losses were combined into a single amount and recognized over a five-year (10 six-month) period. Beginning with the six-month period immediately following June 30, 2018, offsetting of current period gains or losses against prior period gains or losses occur. The actuarial value of assets is restricted to vary no more than 20% from the market value. We believe the actuarial assumptions and methods are internally consistent and reasonable for their intended purpose. We further believe they meet the parameters of Governmental Accounting Standards Board Statement No. 67 and No. 68 for fulfilling financial accounting requirements. Nevertheless, the emerging costs, and future actuarial measurements, will vary from those presented in our valuation and GASB report due to many factors, including experience differing from that anticipated by the actuarial assumptions. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements.

Our funding valuation report, GASB 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 notes to the financial statements, required supplementary information, other information, actuarial, and statistical sections.

1. Rate of separation from 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. Schedule of employer net pension liability
13. Schedule of changes in net pension liability and related ratios of participating employers
14. Schedule of employer pension amounts allocated by cost sharing plan
15. Schedule of cost sharing employer allocations

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Board of Retirement
October 10, 2019
Page 3

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

We certify that the assumptions and methods used for funding and financial reporting purposes in the June 30, 2019 funding and GASB valuations meet the parameters set by Actuarial Standards of Practice promulgated by the Actuarial Standards Board (ASB). We are members of the American Academy of Actuaries and have experience in performing valuations for public retirement systems.

Sincerely,

A handwritten signature in black ink that reads "Nick Collier".

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

A handwritten signature in black ink that reads "Craig Glyde".

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.

ACTUARIAL VALUATION

Introduction

San Mateo County Employees' Retirement Association (SamCERA) is a cost-sharing multiple-employer, defined benefit plan providing basic service retirement, disability, and survivor benefits to participating members. Details of the pension plan provisions are provided in the Financial Section under the Notes to the Basic Financial Statements (Note 1). Pension benefits are basically determined by a defined formula using final average compensation, years of service, and age of the member.

Funding Policy

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 through the annual valuation of SamCERA's assets and liabilities. The contribution rates adopted by the Board are subsequently transmitted, in the form of a recommendation, to the San Mateo County's Board of Supervisors for adoption.

The participating employers and members are responsible for contributing to the cost of benefits each year (commonly known as normal cost). The portion of the normal cost 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 service 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.

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 rates from the County General Group.

Valuation Objective

The purpose of the annual valuation is to determine employer and member contribution rates (as a level percentage of payroll) that are needed to pay all expected future benefits not funded by the current assets. Details for the ten 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 actuary consulting firm to perform an annual valuation of the retirement fund as of June 30. The actuarial valuation calculates the value of future benefits, assesses the funded status, and establishes contribution rates for participating employers and members. The actuary applies specific actuarial methods and assumptions to project as closely as possible present contributions to meet future benefit obligations in accordance with prevailing Actuarial Standard of Practice. The recommended contribution rates, after adoption, will be subject to a “one year” deferral. Thus, the new contribution rates determined in the June 30, 2019 valuation will become effective on July 1, 2020.

In addition to the annual valuation, SamCERA’s actuary reviews the reasonableness of the demographic and economic actuarial assumptions every three years (commonly referred to as an Experience Study). This review compares the actual experience during the preceding three years to the assumed experience according to the actuarial assumptions. Based on this review, the actuary recommends changes in the assumptions or methods that will better project benefits and liabilities.

Actuarial Cost Method

The entry age normal cost method is used 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 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. For funding purposes, this method was selected 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. For financial reporting purposes, Governmental Accounting Standards Board (GASB) Statement No. 67 requires that this method be used.

Between the funding and financial reporting valuations, the only difference in assumptions is the investment return assumption. The assumed investment return for funding is 6.50%, net of both investment and administrative expenses; whereas the assumed investment return for financial reporting is 6.67%, 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. Excess contributions are applied toward the UAAL if the fund is not fully funded. 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.

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.

All deferred gains and losses are combined into a single amount to be recognized over a 5-year (10 six-month) period. Gains or losses of the current period will be used to offset any unrecognized gains or losses from prior periods, to the extent possible, in the order of oldest to most recent. Any remaining gain or loss for the period is recognized over a 5-year (10 six-month) period.

Assets used to calculate the preliminary UAAL contribution rates exclude the values of the County Supplemental Contribution Account (CSCA) and the District Supplemental Contribution Account (DSCA). Balances in these two accounts are separately tracked and systematically recognized to reduce the statutory contribution rates. The balance in the CSCA is amortized using a similar closed amortization method described above to determine the offset amounts towards the County’s UAAL rate. The balance in the DSDA is amortized over five years effective June 30, 2018, with the offset amounts towards the District’s UAAL rate. Any future layers are amortized over new five-year periods, and the total DSCA offset amount in a given year is limited to the District’s UAAL rate.

Actuarial Assumptions

The annual valuation uses two sets of assumptions: economic and demographic. The assumptions selected are used to estimate the actuarial cost of the pension plan and to determine the present contributions necessary to meet the pension benefits in the future.

- Economic assumptions are generally evaluated and revised annually based on the latest information available.
- Demographic assumptions utilize the information from the latest Experience Study. These assumptions will next be reassessed in detail in year 2020 as part of the triennial investigation of experience, which is commonly known as Experience Study.

The actuary also uses these assumptions 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 earnings. Any variations in future experience from these assumptions will result in corresponding changes in the estimated costs of SamCERA's benefits.

In July 2019, the Board accepted the actuary's recommendation reducing the investment return assumption to 6.50% for the June 30, 2019 valuation, compared to the 6.75% used in the June 30, 2018 valuation. This change caused an increase of \$174 million in UAAL, an increase of 3.72% in the statutory contribution rate effective July 1, 2020. This change was also a key driving force for a 1.7% decrease in the funded ratio from 87.5% at June 30, 2018 to 85.8% at June 30, 2019.

Key Economic Assumptions

General Wage Increase. The assumed rate of annual wage increases is 3.00%.

Investment Rate of Return. The future investment earnings of SamCERA's assets are accrued at an annual rate of 6.50% compounded annually (3.25% per six-month period), net of both investment and administrative expenses.

Growth in Active Membership. The projected growth is 0.00%.

Consumer Price Index Inflation Rate. The assumed rate of inflation for the 2019 valuation is 2.50%.

Key Demographic Assumptions

Salary Increases due to Service. The projected annual increase in the salary assumption is due to promotion and longevity, which varies depending on a member's years of service, adjusted for the assumed 3% annual increase in the general wage.

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.

Mortality for Active and Service Retired Members

- Mortality for active members prior to termination. Use RP-2014 Employee Mortality Table for respective genders with MP-2014 Ultimate Projection Scale (adjustment factor is 100%).
- Mortality for active members after termination and service retired members. Use RP2014-Healthy Annuitant Mortality Table for respective genders with MP-2014 Ultimate Projection Scale (adjustment factor is 95%).

Mortality for Disabled Members

- Use RP-2014 Healthy Annuitant and Disabled Mortality Tables for respective genders with MP-2014 Ultimate Projection Scale (adjustment factor is 95% for Healthy and 105% for Disability).

Mortality for Beneficiaries

- Beneficiaries are assumed to be of the opposite sex and have the same mortality as General members (adjustment factor is 105%).

Separation from Active Status. The probabilities of termination of employment due to the causes stated below are presented on pages 118-119. Each rate shown on these pages represents the probability that a member will separate from service at each age due to a 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.

ACTUARIAL METHODS AND ASSUMPTIONS (FOR FUNDING PURPOSES)

VALUATION DATE	June 30, 2019
ACTUARIAL COST METHOD	Entry Age Normal Cost
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:	
General wage increases	3.00%
Investment rate of return	6.50%
Growth in Active membership	0.00%
Inflation rate (CPI)	2.50%
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 appropriate RP-2014 Mortality Tables for respective genders with MP-2014 Ultimate Projection Scale. See the valuation report as of June 30, 2019, for details.
Retirement	See the valuation report as of June 30, 2019, for details.
Disability	See the valuation report as of June 30, 2019, for details.
Other terminations of employment	See the valuation report as of June 30, 2019, for details.
Refund of contributions on vested termination	See the valuation report as of June 30, 2019, for details.

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

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 Plan 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 Plan 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 Plan 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 Plan 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 Plan 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

RATE OF SEPARATION FROM ACTIVE SERVICE (CONTINUED)

Years of Service	Other Terminations		Age	Disability		Death while Active		Service Retirement
	Ordinary	Vested		Ordinary	Service	Ordinary	Service	
General Plan 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 Plan 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
			70	0.0000	0.0000	0.0000	0.0000	1.0000
Safety and Probation Plan 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 Plan 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 Plan 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

SUMMARY OF SIGNIFICANT ACTUARIAL STATISTICS AND MEASURES

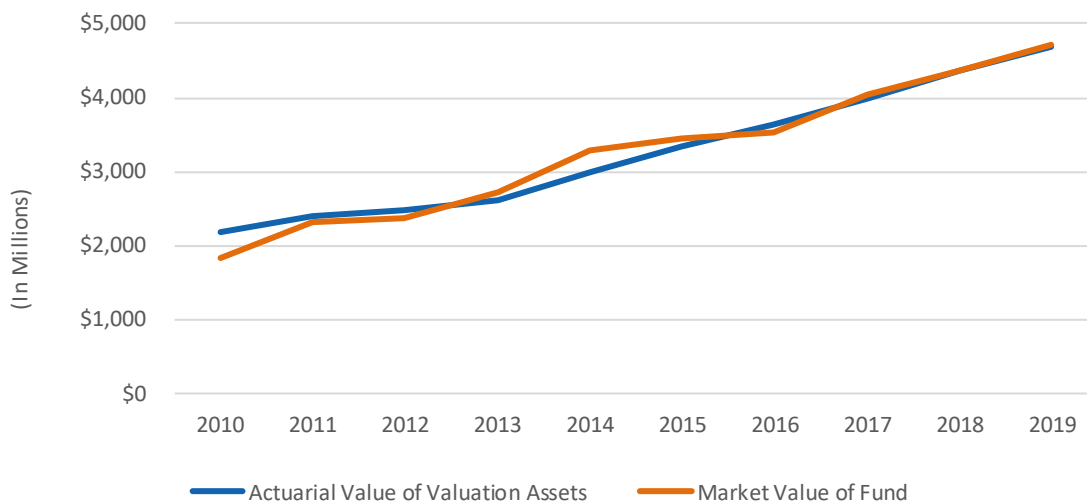
	June 30, 2019	June 30, 2018	Relative Change
ACTIVE MEMBERS			
Number of Members	5,377	5,367	0.2%
Average Age	45.1	45.1	-
Average Credited Service	10.4	10.6	(1.9)%
Total Active Payroll (\$ in Thousands)	\$554,734	\$535,938	3.5%
Average Monthly Salary	\$8,873	\$8,407	5.5%
RETIRED MEMBERS			
Number of Members			
Service Retirement	4,133	4,002	3.3%
Disability Retirement	487	472	3.2%
Beneficiaries	605	635	(4.7)%
Average Age	71.2	71.2	-
Actual Retiree Benefits Paid (\$ in Thousands)	\$223,614	\$204,729	9.2%
Average Monthly Pension	\$3,731	\$3,510	6.3%
NUMBER OF INACTIVE MEMBERS	1,767	1,666	6.1%
ASSETS			
Market Value of Fund (\$ in Thousands)	\$4,723,110	\$4,373,962	8.0%
Return on Market Value	6.2%	6.7%	
Valuation Assets (\$ in Thousands)	\$4,685,502	\$4,351,502	7.7%
Return on Valuation Assets	5.6%	7.8%	
LIABILITY VALUES (\$ IN THOUSANDS)			
Actuarial Accrued Liability	\$5,459,978	\$4,970,535	9.8%
Unfunded Actuarial Accrued Liability	\$774,476	\$619,033	25.1%
Deferred Asset (Gains) / Losses	\$9,720	\$21,496	
FUNDED RATIO			
Based on valuation assets	85.8%	87.5%	(1.9)%

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.

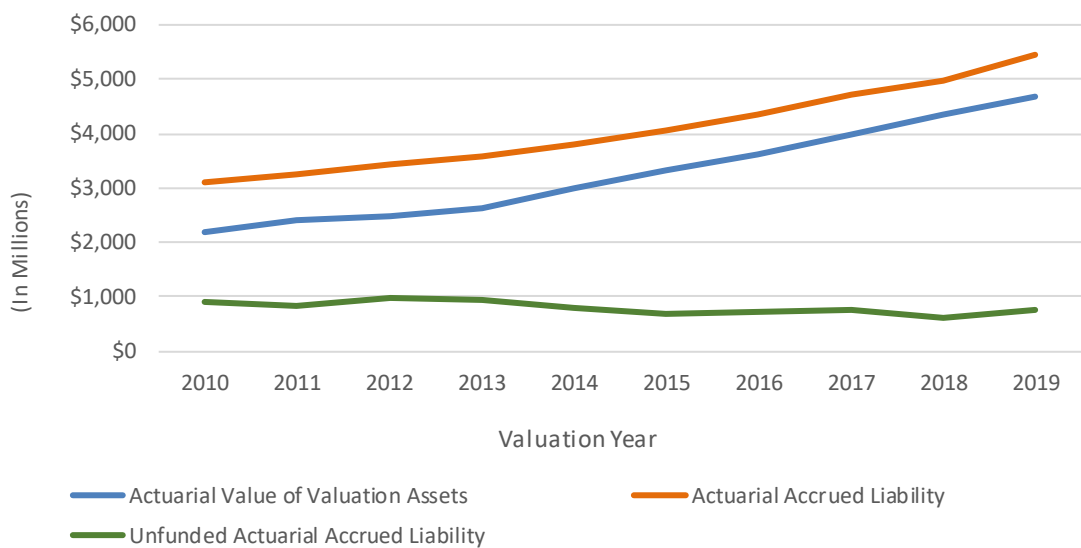
APPLICABLE VALUATION ASSETS

June 30



ACTUARIAL VALUATION

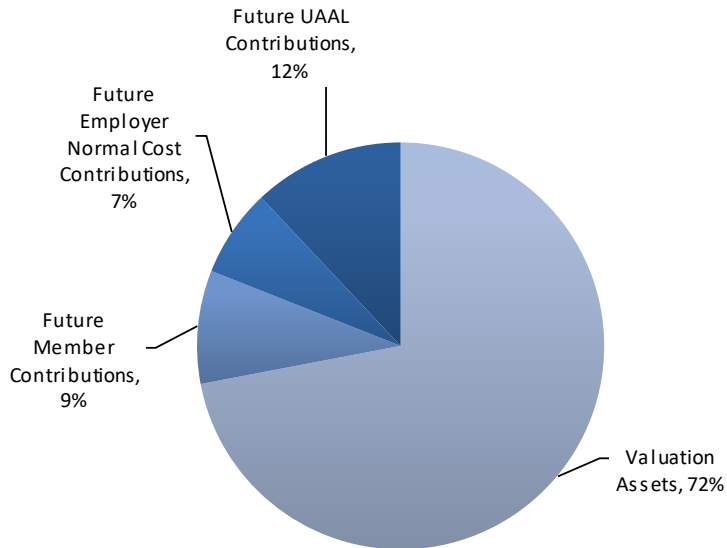
June 30



ACTUARIAL VALUATION—SAMCERA'S RESOURCES

June 30, 2019

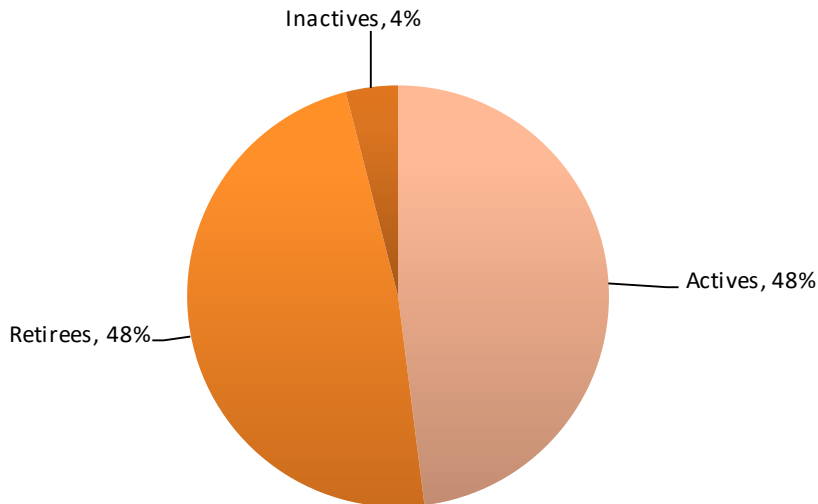
SamCERA's resources equal the actuarial assets plus the expected future contributions by both the employers and members.



ACTUARIAL VALUATION—SAMCERA'S LIABILITIES

June 30, 2019

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



SCHEDULE OF ACTIVE MEMBER VALUATION DATA

Valuation Date As of June 30,	Number of Active Members		Annual Salary	Annual Average Salary	Percentage Change in Annual Average Salary
2019	General	4,610	\$476,944,186	\$103,459	6.1%
	Safety	530	70,890,519	133,756	1.7%
	Probation	237	24,680,991	104,139	3.6%
	Total	5,377	\$572,515,696	\$106,475	5.5%
2018	General	4,603	\$448,931,595	\$97,530	3.3%
	Safety	508	66,799,289	131,495	1.6%
	Probation	256	25,741,800	100,554	4.0%
	Total	5,367	\$541,472,684	\$100,889	3.1%
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%
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%
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%
2014	General	4,272	\$352,918,558	\$82,612	2.5%
	Safety	452	52,974,475	117,200	-1.0%
	Probation	280	23,514,343	83,980	0.8%
	Total	5,004	\$429,407,376	\$85,813	2.2%
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%
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%
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%
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%

Note: See further details for participating employers and active members in the Statistical Section.

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)
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%
2018	4,351,502	783,887	3,032,813	1,153,835	100%	100%	46%
2019	4,685,502	769,137	3,369,094	1,321,747	100%	100%	41%

⁽¹⁾ Includes inactive members

SCHEDULE OF RETIREES AND BENEFICIARIES ADDED TO AND REMOVED FROM THE ROLLS

Fiscal Year Ended June 30,	Added to Rolls ⁽¹⁾		Removed from Rolls		Rolls at Year-End			
	Number	Annual Benefits (in Thousands)	Number	Annual Benefits (in Thousands)	Number	Total Retiree Payroll (in Thousands)	% Increase in Payroll	Average Monthly Benefits
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
2018	315	21,360	162	5,242	5,109	215,186	8.1	3,510
2019	306	24,547	190	5,769	5,225	233,964	8.7	3,731

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

⁽²⁾ Revised from June 30, 2011 valuation for corrections.

ACTUARIAL ANALYSIS OF FINANCIAL EXPERIENCE

June 30 (Dollars in Thousands)

Summary of (Gains) / Losses	Change In Liability				
	2019	2018	2017	2016	2015
Unfunded Liability as of July 1	\$619,033	\$743,133	\$737,570	\$702,236	\$803,855
Expected Change in Unfunded Actuarial					
Accrued Liability	(153,261)	(109,756)	(110,404)	(96,454)	(76,018)
Salary (Gain) / Loss	50,472	10,401	27,685	24,707	39,129
Retiree COLA more / (less) than Expected	21,749	12,203	7,050	(6,275)	3,648
Asset (Gain) / Loss	46,909	(42,796)	(28,286)	27,821	(74,068)
Change due to Assumption Changes	173,944	-	133,221	89,364	-
Miscellaneous Experience	15,630	5,848	(23,703)	(3,829)	5,690
Unfunded Liability as of June 30	\$774,476	\$619,033	\$743,133	\$737,570	\$702,236

SCHEDULE OF FUNDING PROGRESS

(Dollars in Thousands)

This schedule provides information about the funding progress of the pension plan.

Actuarial Valuation Date as of June 30,	(a) Actuarial Value of Valuation Assets	(b) Actuarial Accrued Liability	(b-a) Unfunded Actuarial Liability (UAAL)	(a/b) Funded Ratio	(c) Covered Payroll	[(b-a)/c] UAAL as a Percentage of Covered Payroll
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%
2018	4,351,502	4,970,535	619,033	87.5%	535,938	115.50%
2019	4,685,502	5,459,978	774,476	85.8%	554,734	139.61%

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

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STATISTICAL SECTION



THE STATISTICAL SECTION

Introduction

This section presents historical information for the past ten fiscal years about SamCERA's finances and operations. Some of the information in this section is compiled by SamCERA's actuary based on the information provided by SamCERA.

CHANGES IN FIDUCIARY NET POSITION

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

	2019	2018	2017	2016	2015
Additions					
Employer Contributions	\$194,830	\$179,627	\$164,877	\$170,046	\$169,814
Employer Supplemental Contributions	50,668	27,630	33,850	21,048	10,890
Member Contributions	67,696	64,204	62,160	56,069	48,012
Total Contributions	313,194	271,461	260,887	247,163	228,716
Investment Income (Loss), net of Expenses	271,592	280,076	436,603	24,112	111,320
Securities Lending Income	66	43	46	278	310
Miscellaneous Additions	33	27	27	4,910	-
Total Additions	584,885	551,607	697,563	276,463	340,346
Deductions					
Retiree Benefits	223,614	204,728	190,364	179,498	168,109
Member Refunds	3,571	4,326	2,876	3,366	3,357
Administrative Expenses	6,057	5,849	5,983	5,962	5,350
Information Technology Expenses	2,495	1,444	996	714	629
Other Expenses	-	-	30	11	119
Total Deductions	235,737	216,347	200,249	189,551	177,564
Changes in Pension Plan Net Position	\$349,148	\$335,260	\$497,314	\$86,912	\$162,782

Note: This schedule was revised to show employer contributions and employer supplemental contributions separately. In prior years, these two types of contributions were combined and reported as employer contributions.

CHANGES IN FIDUCIARY NET POSITION (CONTINUED)

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

	2014	2013	2012	2011	2010
Additions					
Employer Contributions	152,877	131,294	139,407	\$150,475	\$106,265
Employer Supplemental Contributions	50,000	13,014	11,543	-	-
Member Contributions	46,594	55,408	49,687	49,013	50,319
Total Contributions	249,471	199,716	200,637	199,488	156,584
Investment Income (Loss), net of Expenses	482,050	326,983	(11,024)	437,654	195,412
Securities Lending Income	435	622	721	530	743
Miscellaneous Additions	179	160	29	73	41
Total Additions	732,135	527,481	190,363	637,745	352,780
Deductions					
Retiree Benefits	159,342	149,266	139,208	129,835	122,141
Member Refunds	3,214	5,750	3,627	2,474	2,736
Administrative Expenses	4,914	4,260	4,675	3,547	3,373
Information Technology Expenses ⁽¹⁾	731	654	325	-	-
Other Expenses	65	29	-	10	33
Total Deductions	168,266	159,959	147,835	135,866	128,283
Changes in Pension Plan Net Position	\$563,869	\$367,522	\$42,528	\$501,879	\$224,497

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

Note: This schedule was revised to show employer contributions and employer supplemental contributions separately. In prior years, these two types of contributions were combined and reported as employer contributions.

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
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
2018	64,204	207,257	280,076	70	551,607
2019	67,696	245,498	271,592	99	584,885

SCHEDULE OF DEDUCTIONS FROM FIDUCIARY NET POSITION BY TYPE

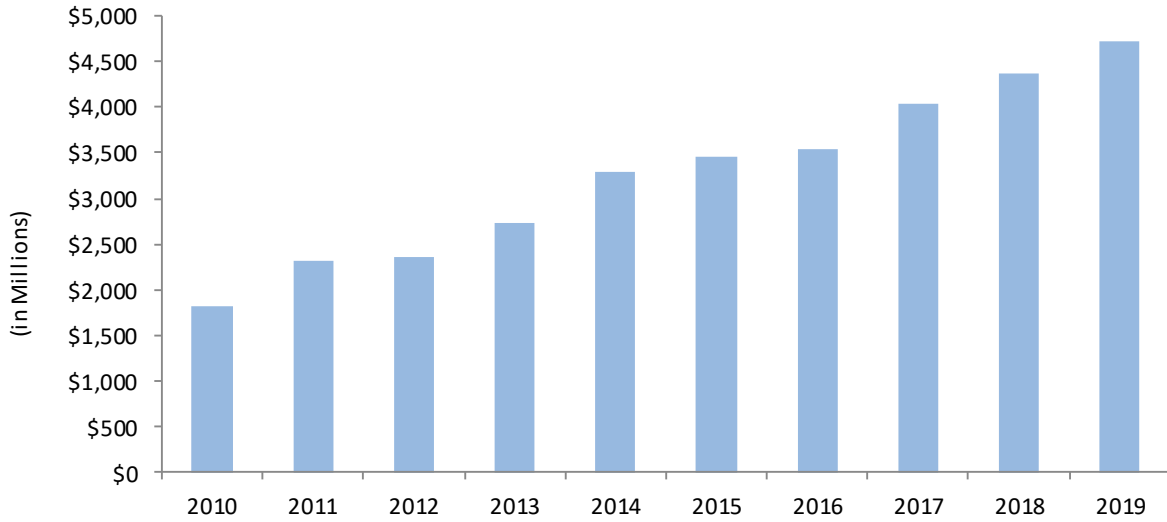
(Dollars in Thousands)

Fiscal Year Ended June 30	Retirement and Other Benefits	Member Refunds	Administrative Expenses ⁽¹⁾	Information Technology Expenses	Other Expenses	Total Deductions
2010	\$122,141	\$2,736	\$3,373	\$ -	\$33	\$128,283
2011	129,835	2,474	3,547	-	10	135,866
2012	139,208	3,627	4,675	325	-	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
2018	204,728	4,326	5,849	1,444	-	216,347
2019	223,614	3,571	6,057	2,495	-	235,737

⁽¹⁾ Administrative expenses related to investments were classified as investment expense prior to fiscal year 2012. Effective June 30, 2012, such expenses are reported as administrative expenses.

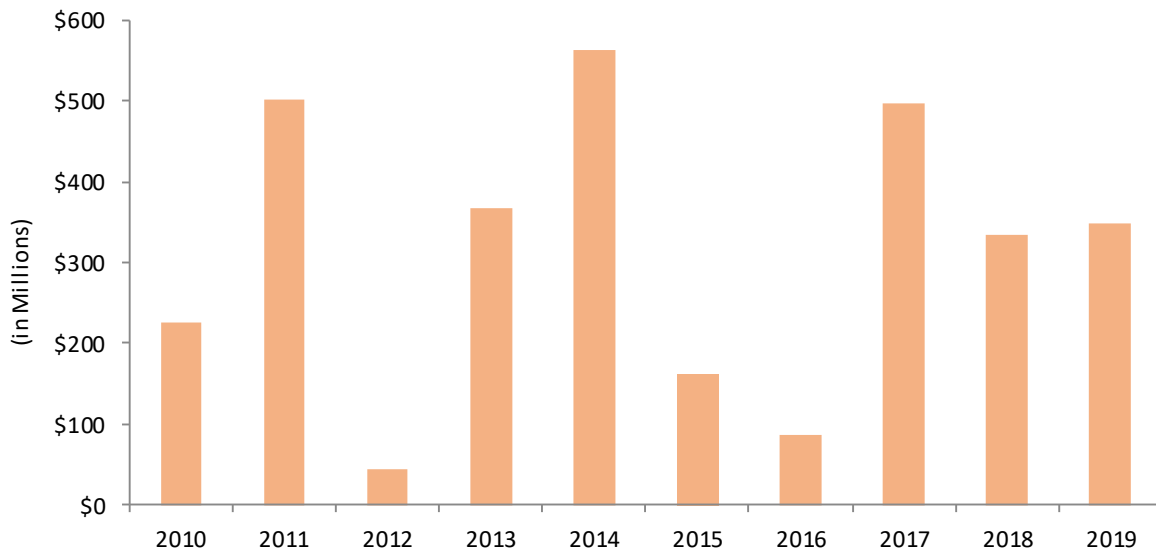
TOTAL FIDUCIARY NET POSITION

June 30



CHANGES IN FIDUCIARY NET POSITION

For the Fiscal Years Ended June 30



SUMMARY OF RETIRED BENEFITS, REFUNDS, AND INACTIVE MEMBERS

RETIRED MEMBERS	2019	2018	2017	2016	2015	2014	2013
Service Retirement ⁽¹⁾							
Number	4,697	4,604	4,458	4,257	4,160	4,052	3,965
Annual Allowance	\$196,874,097	\$179,880,342	\$166,975,634	\$157,513,099	\$147,266,945	\$139,036,410	\$131,638,612
Average Monthly Payment	\$3,493	\$3,256	\$3,121	\$3,083	\$2,950	\$2,859	\$2,767
Survivor							
Number	30	29	27	27	29	30	31
Annual Allowance	\$982,715	\$781,459	\$661,162	\$652,711	\$661,222	\$654,972	\$649,930
Average Monthly Payment	\$2,730	\$2,246	\$2,041	\$2,015	\$1,900	\$1,819	\$1,747
Death							
Number	7	4	1	5	3	1	1
Annual Allowance	\$249,751	\$194,927	\$26,646	\$82,444	\$90,635	\$13,633	\$39,265
Average Monthly Payment	\$2,973	\$4,061	\$2,221	\$1,374	\$2,518	\$1,136	\$3,272
Other Benefits							
Number	4	-	1	5	4	7	8
Annual Allowance	\$295,600	\$0	\$11,138	\$158,478	\$51,734	\$370,340	\$232,593
Average Monthly Payment	\$6,158	\$0	\$928	\$2,641	\$1,078	\$4,409	\$2,423
Disability Retirement							
Number	487	472	469	454	442	428	393
Annual Allowance	\$25,211,881	\$23,872,145	\$22,689,813	\$21,090,529	\$20,038,671	\$19,266,623	\$16,705,247
Average Monthly Payment	\$4,314	\$4,215	\$4,032	\$3,871	\$3,778	\$3,751	\$3,542
Total Retired Members							
Number	5,225	5,109	4,956	4,748	4,638	4,518	4,398
Annual Allowance	\$223,614,044	\$204,728,873	\$190,364,393	\$179,497,261	\$168,109,207	\$159,341,978	\$149,265,647
Average Monthly Payment	\$3,566	\$3,339	\$3,201	\$3,150	\$3,021	\$2,939	\$2,828
REFUND							
General	\$3,478,748	\$3,252,941	\$2,511,145	\$2,991,126	\$3,011,758	\$3,058,864	\$5,161,430
Safety	\$92,331	\$1,072,789	\$364,742	\$375,311	\$345,253	\$155,265	\$588,346
Total Refund	\$3,571,079	\$4,325,730	\$2,875,887	\$3,366,437	\$3,357,011	\$3,214,129	\$5,749,776
INACTIVE MEMBERS							
	1,767	1,666	1,487	1,486	1,384	1,304	1,306

⁽¹⁾ Included beneficiaries.

Note 1 - This schedule is prepared by SamCERA based on the actual allowances disbursed.

Note 2 - Data prior to fiscal year 2012-13 is not available.

SCHEDULE OF AVERAGE PENSION BENEFIT PAYMENTS

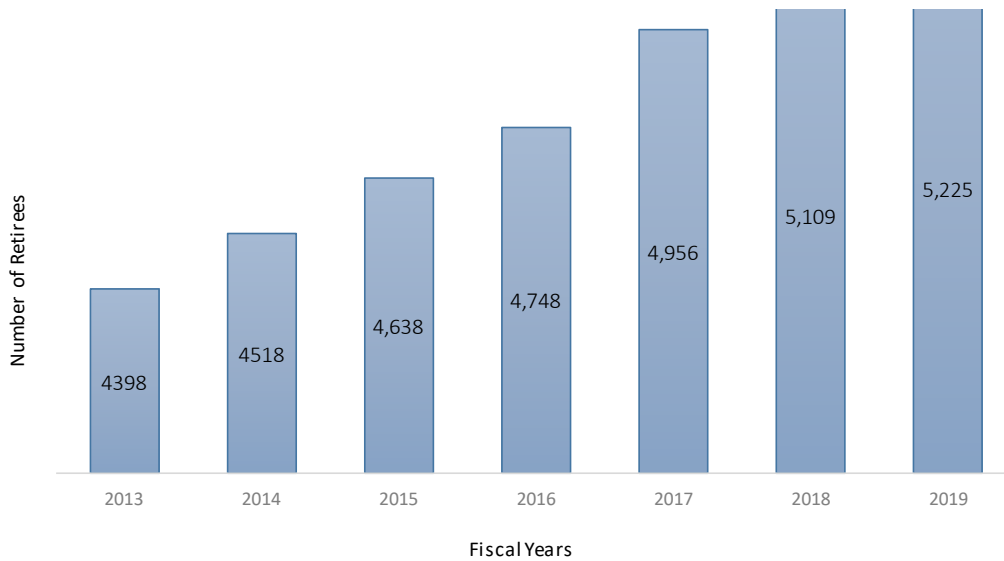
	Years of Service Credit						
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+
7/1/2018 - 6/30/2019							
Retirees - Service and Disabilities							
Retirees - Service and Disabilities							
Average Monthly Gross Benefit	\$425	\$1,564	\$2,484	\$4,013	\$5,002	\$7,792	\$8,675
Average Final Compensation	\$10,219	\$9,667	\$8,886	\$8,901	\$8,823	\$11,094	\$10,494
Number of Retires	11	37	49	44	45	42	32
Beneficiaries							
Average Monthly Gross Benefit	\$1,218	\$1,828	\$1,174	\$134	\$2,052	\$3,757	\$6,841
Average Final Compensation	\$2,906	\$9,453	\$5,924	\$6,644	\$3,854	\$4,246	\$8,249
Number of Beneficiaries	11	4	5	1	2	5	5
7/1/2017 - 6/30/2018							
Retirees - Service and Disabilities							
Retirees - Service and Disabilities							
Average Monthly Gross Benefit	\$613	\$1,327	\$2,192	\$3,541	\$5,616	\$6,728	\$8,213
Average Final Compensation	\$9,353	\$8,032	\$7,419	\$8,210	\$9,470	\$9,686	\$9,792
Number of Retires	12	33	57	41	35	38	41
Beneficiaries							
Average Monthly Gross Benefit	\$1,962	\$1,460	\$1,455	\$1,861	\$2,640	\$6,712	\$4,033
Average Final Compensation	\$4,880	\$8,022	\$5,806	\$6,311	\$6,057	\$6,777	\$5,995
Number of Beneficiaries	13	10	9	5	6	8	7
7/1/2016 - 6/30/2017							
Retirees - Service and Disabilities							
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 Retires	13	35	47	37	37	32	33
Beneficiaries							
Average Monthly Gross Benefit	\$1,197	\$574	\$1,665	\$2,916	\$1,299	\$0	\$0
Average Final Compensation	\$2,152	\$3,564	\$2,251	\$3,852	\$3,474	\$0	\$0
Number of Beneficiaries	8	6	5	1	1	0	0
7/1/2015 - 6/30/2016							
Retirees - Service and Disabilities							
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 Retires	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							
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 Retires	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

SCHEDULE OF AVERAGE PENSION BENEFIT PAYMENTS (CONTINUED)

	Years of Service Credit						
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+
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
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 Retirees	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 Retirees	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 Retirees	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

NUMBER OF RETIREES

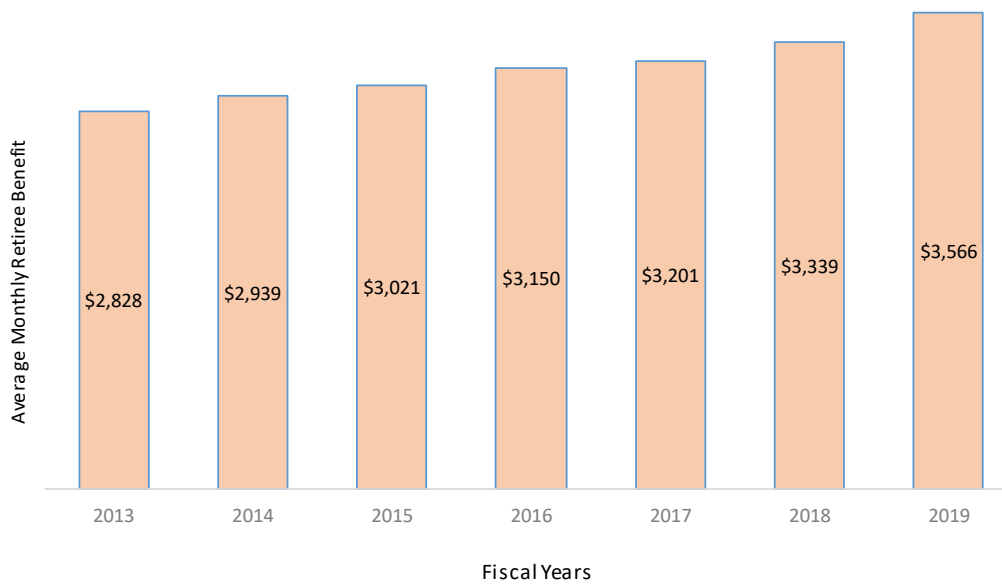
June 30



Note: Information prior to fiscal year 2013 is not available.

AVERAGE MONTHLY RETIREE BENEFIT

For the Fiscal Years Ended June 30



Note: Information prior to fiscal year 2013 is not available.

SCHEDULE OF AVERAGE MONTHLY SALARY OF ACTIVE MEMBERS*For the Fiscal Years Ended June 30 (by Plan and Membership Type)*

	2019	2018	2017	2016	2015
General Plan 1	\$9,793	\$10,121	\$11,305	\$9,945	\$9,235
General Plan 2	10,088	9,526	8,994	8,636	8,186
General Plan 3	7,872	7,462	7,484	7,173	6,747
General Plan 4	9,302	8,534	8,134	7,807	7,386
General Plan 5	10,180	9,672	8,980	8,485	7,735
General Plan 7	7,395	6,974	6,737	6,714	6,315
Average Monthly Salary for General Plan	8,622	8,128	7,869	7,694	7,351
Safety Plan 1	0	0	14,434	15,810	14,712
Safety Plan 2	14,197	13,607	13,528	12,505	11,545
Safety Plan 4	12,391	11,894	11,381	10,729	9,919
Safety Plan 5	11,708	11,349	10,544	9,940	9,145
Safety Plan 6	0	0	0	16,793	16,010
Safety Plan 7	9,030	8,747	8,356	7,538	6,701
Average Monthly Salary for Safety Plan	11,146	10,958	10,786	10,364	9,728
Probation 1	0	0	7,722	7,261	7,038
Probation 2	9,908	9,061	9,069	8,349	8,012
Probation 4	9,103	8,714	8,270	7,454	7,267
Probation 5	8,587	8,219	7,612	6,429	6,106
Probation 6	0	0	7,347	6,259	5,739
Probation 7	6,973	6,676	6,121	5,962	5,684
Average Monthly Salary for Probation Plan	8,678	8,379	8,061	7,391	7,216
Average Monthly Salary for All Plans	8,873	8,407	8,154	7,933	7,567

SCHEDULE OF AVERAGE MONTHLY SALARY OF ACTIVE MEMBERS (CONTINUED)

For the Fiscal Years Ended June 30 (by Plan and Membership Type)

	2014	2013	2012	2011	2010
General Plan 1	\$8,617	\$8,104	\$7,843	\$7,630	\$7,543
General Plan 2	7,584	7,355	7,340	7,208	7,193
General Plan 3	6,300	6,254	6,138	5,968	5,818
General Plan 4	6,873	6,662	6,580	6,398	6,348
General Plan 5	6,912	6,418	5,799	N/A	N/A
General Plan 7	5,721	5,433	N/A	N/A	N/A
Average Monthly Salary for General Plan	6,884	6,762	6,726	6,599	6,569
Safety Plan 1	14,091	13,185	12,624	12,073	11,578
Safety Plan 2	11,191	10,935	10,892	10,789	10,548
Safety Plan 4	9,581	9,402	9,351	9,230	8,931
Safety Plan 5	8,958	8,699	9,667	N/A	N/A
Safety Plan 6	14,381	12,374	N/A	N/A	N/A
Safety Plan 7	7,011	6,695	N/A	N/A	N/A
Average Monthly Salary for Safety Plan	9,767	9,630	9,795	9,730	9,525
Probation 1	6,874	6,618	6,618	7,533	8,922
Probation 2	7,699	7,445	7,454	7,349	7,393
Probation 4	6,922	6,622	6,686	6,505	6,456
Probation 5	5,916	5,242	4,949	N/A	N/A
Probation 6	5,216	4,808	5,239	N/A	N/A
Probation 7	5,807	7,742	5,239	N/A	N/A
Average Monthly Salary for Probation Plan	6,998	6,770	6,844	6,719	6,722
Average Monthly Salary for All Plans	7,151	7,026	6,995	6,872	6,813

SCHEDULE OF ACTIVE MEMBERS AND PARTICIPATING EMPLOYERS

June 30

	2019	2018	2017	2016	2015
COUNTY OF SAN MATEO					
General Members	4,350	4,343	4,303	4,170	4,092
Safety Members	530	508	503	495	479
Probation Members	237	256	274	271	282
Subtotal	5,117	5,107	5,080	4,936	4,853
SAN MATEO COUNTY SUPERIOR COURT					
General Members	240	239	237	231	222
SAN MATEO COUNTY MOSQUITO & VECTOR CONTROL DISTRICT					
General Members	20	21	20	20	20
Total Active Membership	5,377	5,367	5,337	5,187	5,095
Percentage of Membership by Employer					
County of San Mateo	95.17%	95.16%	95.18%	95.16%	95.25%
San Mateo Superior Court	4.46%	4.45%	4.45%	4.45%	4.36%
San Mateo County Mosquito and Vector Control District	0.37%	0.39%	0.37%	0.39%	0.39%
Total Percentage of Membership	100.00%	100.00%	100.00%	100.00%	100.00%

SCHEDULE OF ACTIVE MEMBERS AND PARTICIPATING EMPLOYERS (CONTINUED)

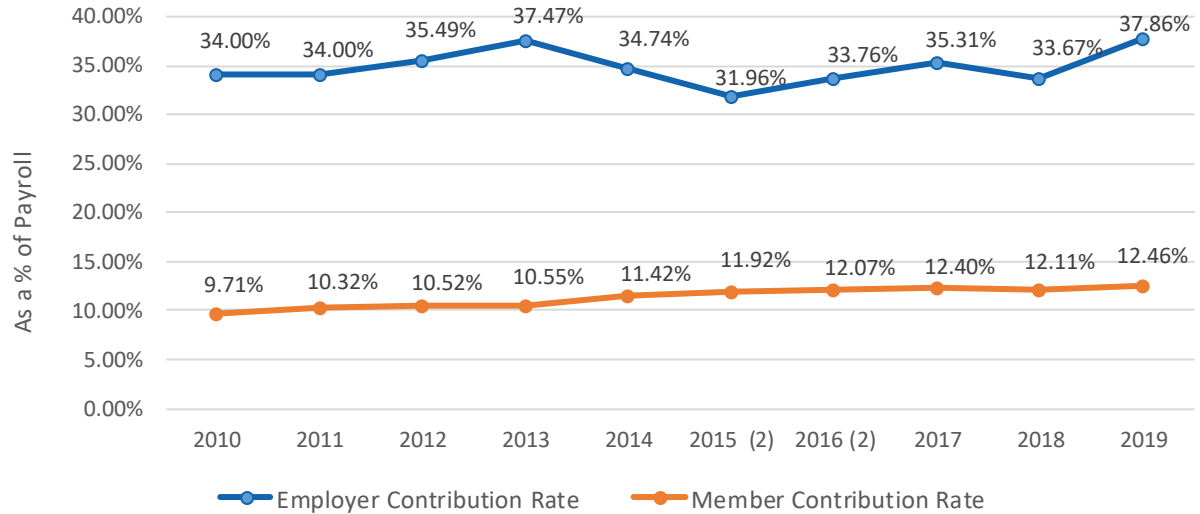
June 30

	2014	2013	2012	2011	2010
COUNTY OF SAN MATEO					
General Members	4,014	3,906	4,078	4,476	4,589
Safety Members	452	452	435	446	425
Probation Members	280	292	299	305	313
Subtotal	4,746	4,650	4,812	5,227	5,327
SAN MATEO COUNTY SUPERIOR COURT					
General Members	239	249	268	N/A	N/A
SAN MATEO COUNTY MOSQUITO & VECTOR CONTROL DISTRICT					
General Members	19	18	15	18	20
Total Active Membership	5,004	4,917	5,095	5,245	5,347
Percentage of Membership by Employer					
County of San Mateo	94.84%	94.57%	94.45%	99.66%	99.63%
San Mateo Superior Court	4.78%	5.06%	5.26%	N/A	N/A
San Mateo County Mosquito and Vector Control District	0.38%	0.37%	0.29%	0.34%	0.37%
Total Percentage of Membership	100.00%	100.00%	100.00%	100.00%	100.00%

Note: San Mateo County Superior Court was once a unit of the County of San Mateo, but was separated and became a unit of the State of California in fiscal year 2011-12.

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, 2019, will become effective on July 1, 2020.

⁽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

Employer Statutory Contribution Rate	Fiscal Year Beginning		Change
	July 1, 2020 ⁽¹⁾	July 1, 2019	
Gross Normal Cost	23.73%	22.68%	1.05%
Less: Member Contributions	(12.46)%	(12.11)%	(0.35)%
Employer Normal Cost	11.27%	10.57%	0.70%
UAAL Amortization	26.59%	23.10%	3.49%
Total Employer Statutory Contribution Rate	37.86%	33.67%	4.19%

Statutory Contribution Rate by Employer

County of San Mateo	38.06%	33.85%	4.21%
San Mateo County Superior Court	35.22%	31.03%	4.19%
San Mateo County Mosquito & Vector Control District	12.58%	12.13%	0.45%

⁽¹⁾ The Total Employer Statutory Contribution Rate of 37.86% is the aggregate rate for all employers.

HISTORY OF EMPLOYER STATUTORY CONTRIBUTION RATES

Valuation Date	General Members (County & Court)			General Members (Nurses & UAPD)			General Members (District)		
	Normal	UAAL	Total	Normal	UAAL	Total	Normal	UAAL	Total
June 30									
2010	10.05%	16.35%	26.40%	10.05%	16.35%	26.40%	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 Date	General Members (County)			General Members (Court)			General Members (District)		
	Normal	UAAL	Total	Normal	UAAL	Total	Normal	UAAL	Total
June 30									
2015	8.67%	18.37%	27.04%	9.04%	19.54%	28.58%	11.75%	19.54%	31.29%
2016	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%
2018	9.22%	19.32%	28.54%	9.27%	21.76%	31.03%	12.13%	0.00%	12.13%
2019	9.93%	22.18%	32.11%	10.01%	25.21%	35.22%	12.58%	0.00%	12.58%

Notes:

- Contribution rates shown are those calculated in the corresponding actuarial valuation. In some cases, actual contributions were higher.
- Beginning with the 2010 actuarial valuation, the Mosquito and Vector Control District adopted the same benefit formula and member contribution rates as Plan 1, 2 and 4 General County members (excluding cost sharing and COLA sharing on member rates).
- Beginning with the 2011 actuarial valuation, Plan 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.
- Beginning with the 2012 actuarial valuation, Plan 1, 2, and 4 Probation members (excluding Managers) contribute 25% of the cost of COLA, in addition to current member rates and cost sharing.
- Beginning with the 2013 actuarial valuation, Plan 1, 2, and 4 members of the Union of American Physicians & 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.
- Beginning with the 2015 actuarial valuation, Plan 1, 2, and 4 members of the UAPD and the CNA, and Probation members (Managers) contribute 50% of the cost of COLA, in addition to current member rates and cost sharing.
- 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 District 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 PDA bargaining unit.
- Effective October 2016, all members (except those with benefits negotiated under Board of Supervisors bargaining unit, and District members) contribute 50% of the cost of COLA, in addition to current member rates and cost sharing. This is reflected in 2016 values.
- Effective July 1, 2018, the Board of Supervisors contribute 50% of the cost of COLA, in addition to current member rates and cost sharing. Additionally, pick-up contributions were eliminated.

HISTORY OF EMPLOYER STATUTORY CONTRIBUTION RATES (CONTINUED)

Valuation Date	Safety Member			Probation Members (excluding Managers)			Probation Members (Managers)		
	Normal	UAAL	Total	Normal	UAAL	Total	Normal	UAAL	Total
June 30									
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	15.14%	43.58%	58.72%	15.31%	26.77%	42.08%	17.23%	26.77%	44.00%
2016	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)		
2018	16.98%	44.68%	61.66%	16.95%	32.88%	49.83%	Same as Probation (exclude Managers)		
2019	18.02%	50.87%	68.89%	17.97%	42.55%	60.52%	Same as Probation (exclude Managers)		

Notes:

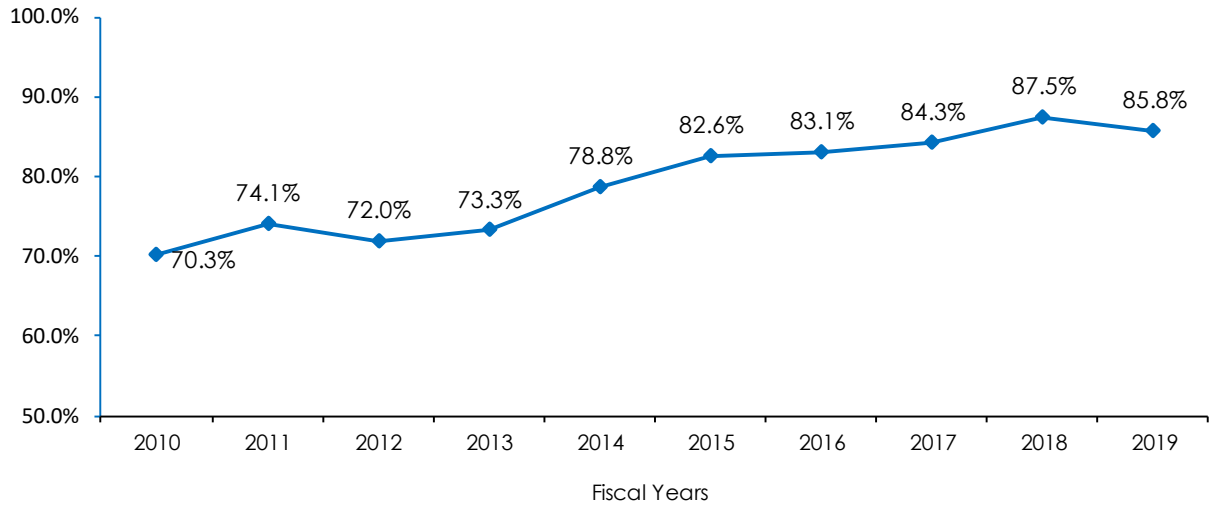
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COMPLIANCE SECTION



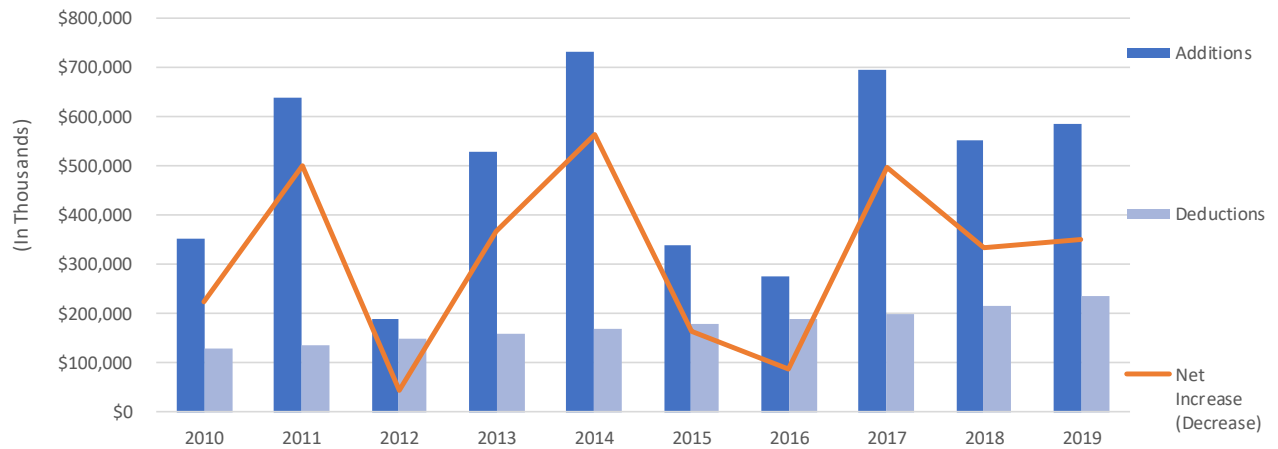
SAMCERA'S FUNDED RATIO

June 30



ADDITIONS TO AND DEDUCTIONS FROM SAMCERA'S NET POSITION

For the Fiscal Years Ended June 30





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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 and other information (financial statements) of the San Mateo County Employees' Retirement Association (SamCERA) as of and for the fiscal year ended June 30, 2019, and the related notes to the financial statements, which collectively comprise SamCERA's basic financial statements, and have issued our report thereon dated October 21, 2019.

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 21, 2019

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PHOTO CREDIT

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(left to right)

1. Photographer unknown, (1959). *Old Court House*. San Mateo County Historical Association Collection.
2. Melena, Joe for the Times Tribune (1987). *Carl Hill, Supervising Evidence Technician, making fingerprint comparisons*. San Mateo County Historical Association Collection.
3. Photographer unknown (1959). *Workmen clean walks at the Superior Court Hall of Justice*. San Mateo County Historical Association Collection.
4. Melena, Joe (1991). *911 Ambulance Dispatch Center, Dawn Spray*. San Mateo County Historical Association Collection.
5. Dep, Alan (1988). *San Mateo County Economic Development Association World Trade Council Meeting*. San Mateo County Historical Association Collection.
6. Photographer unknown (1986). *San Mateo County Sheriffs*. San Mateo County Historical Association Collection.
7. McGovern, Reg for the Times Tribune (1980). *Helen Collignon checking unpaid Co. fines*. San Mateo County Historical Association Collection.
8. Courtesy of San Mateo County Mosquito and Vector Control District Staff.
9. Fisher, Vern. (undated) *San Mateo County Board of Supervisors discussing proposed 25 percent raise to a packed house*. San Mateo County Historical Association Collection.

Introductory Section: Photographer unknown (late 20th century). *San Mateo County Government Center*. San Mateo County Historical Association Collection.

Financial Section: Courtesy of San Mateo County.

Investment Section: Courtesy of San Mateo County Mosquito and Vector Control District staff.

Actuarial Section: Photographer unknown (late 20th century). *San Carlos Airport*. San Mateo County Historical Association Collection.

Statistical Section: Melena, Joe for the Times Tribune (1987). *Benny Del Re, Supervising Criminalist, and Elliot Kallman, Criminalist, identifying drugs by computer*. San Mateo County Historical Association Collection.

Compliance Section: Kadock (1991). *Speed warning, Ranger D. Brocks and rider D. Rhoads*. San Mateo County Historical Association Collection.

This report can be found
on SamCERA's website.

www.samcera.org

