SCERA

Sonoma County Employees' Retirement Association 2020

(A Pension Trust Fund for The County of Sonoma, Santa Rosa, California)

Annual Comprehensive Financial Report For the Year ended December 31, 2020

Annual Comprehensive Financial Report
For the year ended December 31, 2020

Sonoma County Employees' Retirement Association
A Pension Trust Fund for the County of Sonoma

ISSUED BY

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CHIEF EXECUTIVE OFFICER

KELLY JENKINS
ASSISTANT CHIEF EXECUTIVE OFFICER

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Cover: Designed by Devlin Martinsen.

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Introductory Section

Sonoma County Employees' Retirement Association
433 Aviation Boulevard, Suite 100
Santa Rosa, California 95403
(707) 565-8100   Fax (707) 565-8102

Julie Wyne
Chief Executive Officer

May 27, 2021

Sonoma County Employees' Retirement Association
Board of Retirement
Santa Rosa, California

Dear Board Members:

As the Chief Executive Officer (CEO) of the Sonoma County Employees' Retirement Association (the System or SCERA), I am pleased to present this Annual Comprehensive Financial Report (ACFR) for the year ended December 31, 2020.

The Sonoma County Employees' Retirement Association is a public employee defined benefit retirement system that was established by the County of Sonoma on January 1, 1946. SCERA is administered by the Board of Retirement (Board) to provide retirement, disability, and survivor benefits for its members under the California State Government Code, Section 31450 et seq. (County Employees Retirement Law of 1937 "CERL") and Section 7522 et seq. the California Public Employees' Pension Reform Act of 2013 (PEPRA). SCERA provides benefits to the safety and general members employed by Sonoma County and five other participating employers as listed below:

Sonoma County Water Agency (Water Agency)
Sonoma Valley Fire District
Community Development Commission
Sonoma County Transportation Authority (Transportation Authority)
Superior Court of California – County of Sonoma (Superior Court)

Responsibility for the accuracy of the data, along with the completeness and fairness of the information presented in this Annual Comprehensive Financial Report, rests with SCERA's management. To the best of our knowledge, the enclosed data is accurate in all material respects and is reported in a manner designed to fairly present both SCERA's financial position and operating results.

Introductory Section

SCERA is governed by the California Constitution, the CERL, PEPRA, and the bylaws, regulations, resolutions, policies and procedures adopted by the Board. The Sonoma County Board of Supervisors may also adopt resolutions, as permitted by the CERL, which may affect benefits of SCERA members. SCERA operates its plan in conformance with Internal Revenue Service rules and regulations.

The SCERA Board is responsible for establishing policies governing the administration of the retirement plan, setting actuarial funding policies, making benefit determinations and managing the investment of the System's assets. The day-to-day management of SCERA is delegated to a CEO appointed by the Board and employed directly by the System.

The SCERA Board is a nine member Board, four of whom are appointed by the Sonoma County Board of Supervisors, four of whom are elected by SCERA's membership, and the Sonoma County Treasurer. In addition, the SCERA Board has an Alternate Retired Board Member position. Board members, with the exception of the Sonoma County Treasurer, serve three-year terms of office with no term limits. The Sonoma County Treasurer serves in an ex officio capacity as a function of the office of Treasurer.

Financial Information

Brown Armstrong Accountancy Corporation provides financial statement independent audit services to SCERA. The independent audit, for the plan year ending December 31, 2020, states that SCERA's financial statements are presented in conformity with accounting principles generally accepted in the United States of America (GAAP), are free of material misstatement and sufficient internal accounting controls exist to provide safekeeping of assets and fair presentation of the financial statements and supporting schedules. SCERA recognizes that even sound internal controls have inherent limitations. We believe that SCERA's internal controls are designed to provide reasonable, but not absolute, assurance that these objectives are met. Because the cost of a control should not exceed the benefits to be derived, the objective is to provide reasonable, rather than absolute assurance, that the financial statements are free of any material misstatements.

GAAP requires that management provide a narrative introduction, overview and analysis to accompany the basic financial statements in the form of a Management's Discussion and Analysis (MD&A). This Letter of Transmittal complements the information in the MD&A and should be read in conjunction with it. The MD&A can be found on pages 15 through 20.

Actuarial Funding Status

SCERA's funding objective is to meet benefit promises by achieving long-term full funding of the cost of benefits, seeking reasonable and equitable allocation of those costs, minimizing volatility of contributions where possible and consistent with other policy goals, and obtaining optimum returns consistent with the assumption of prudent risk. The greater the level of overall plan funding, the larger the ratio of assets accumulated to the actuarial accrued liability and the greater the level of investment potential.

Pursuant to provisions in the County Employees Retirement Law of 1937, SCERA engages an independent actuarial firm to perform actuarial valuations of the System annually. As of this latest actuarial valuation, the funding status (the ratio of System assets to System liabilities) is 91.3%.

Additionally, every three years, a triennial experience study is completed, comparing the System's experience over the prior three years to the System's assumptions. The economic and non-economic assumptions are updated at the time each triennial valuation is performed and the updated assumptions are used in the annual valuation, which serves as the basis for changes in member and employer contribution rates necessary to properly fund the System. In advance of each triennial experience study, the System procures an asset liability modeling study conducted by its investment consultant, Aon. This study, and any resulting asset allocation changes, helps SCERA's actuary in the development of the System's investment return assumption recommendation.

The most recent triennial experience study was completed by Segal Consulting in 2018 and performed on data for the period of January 1, 2015 through December 31, 2017. The results of this study were applied to the annual actuarial valuation for the plan year ending December 31, 2020.

Investments

The Board has exclusive control of all investments of the retirement system and is responsible for the establishment of investment objectives, strategies and policies. The Board is authorized to invest in any form or type of investment deemed prudent in the informed opinion of the Board. Members of the Board serve in a fiduciary capacity in discharging their duties with respect to SCERA and the investment portfolio and are bound to act in the best interests of the plan participants when making investment decisions. The assets of SCERA are exclusively managed by external professional investment management firms (a listing of all investment professionals who provide services to SCERA can be found on page 10 of this report).

The investment staff closely monitors the activity of these managers and assists the Board with implementation of investment policies and long-term investment strategies. The Investment Policy Statement establishes the investment program goals, risk philosophy, asset allocation policies, performance objectives, investment management policies and risk controls. A summary of the asset allocation can be found in the Investment Section of this report.

Investments, *continued*

For the year ended December 31, 2020, the SCERA investment portfolio experienced a return of 8.6% compared to a return of 17.0% for the year ended December 31, 2019. The SCERA fund annualized rates of return over the last 3, 5, 10 and 20-year periods, were 7.2%, 9.4%, 8.9% and 6.5%, respectively.

Service Efforts and Accomplishments

Operations

At the beginning of the year, SCERA staff spent a considerable amount of time adapting to the shelter in place orders issued by the Sonoma County Health Officer and revamping its workplace to enable employees to work from home. Safety plans were developed and office protocols were put in place to ensure that those employees who remained on site were protected from virus transmission. SCERA was required to submit a reentry plan to the County of Sonoma and the union covering certain SCERA employees and negotiate a safe return to the office, which was completed in early June. Board and Committee meetings were handled virtually from March through the end of the year and the office remained closed to the public and to SCERA members unless they had an appointment. Despite this change in protocols, SCERA did not have to implement its Continuity of Operations Plan, as staff was able to complete all necessary job functions.

SCERA completed an asset liability modeling study through its investment consultant, Aon, to review the System's current asset allocation, provide capital market assumptions to estimate future performance, and suggest possible changes to SCERA's asset mix based on expressed views from the SCERA Board and executive staff. The Board did not implement any asset allocation changes as a result of the study.

One of SCERA's participating plan sponsors, Sonoma Valley Fire District (formerly Valley of the Moon Fire District) underwent an organizational change, merging neighboring fire districts into a new organization. SCERA analyzed the impact of this change on the new organization's ability to participate in the plan. The new Sonoma Valley Fire District did not gain any additional employees as a result of the merger and its revenue stream was not negatively impacted. SCERA determined that the scope of the organizational change was such that the Sonoma Valley Fire District met the criteria for continuing membership in the plan. SCERA and the new fire district executed a participation agreement and the respective governing bodies passed resolutions.

SCERA owns the building it occupies and it leases a portion of the building to a County department. A portion of the building had been vacant but this year SCERA finalized a lease agreement to another County department resulting in full building occupancy.

Budget

The Board of Retirement approves SCERA's annual budget. The CERL limits SCERA's annual administrative expenses, excluding the costs of administration for computer software and hardware and computer technology consulting service ("IT costs"), to twenty-one hundredths of one percent (0.21%) of the System's actuarial accrued liability. SCERA's administrative expenses have historically been far below this limitation. In 2020, SCERA's administrative expense of $2.6 million, excluding IT costs of $0.2 million, was 0.09% of SCERA's actuarial accrued liability.

Governance

SCERA's Strategic Plan covers a five year period from 2018 through 2022, and in line with its strategic goals SCERA adopted an annual Business Plan. SCERA's Business Plan highlights the routine actions that staff performs each year and indicates how these actions keep SCERA in line with its strategic goals. Projects above and beyond routine actions, like the annual investment plan, are highlighted in the Business Plan. It is important to recognize the daily work that keeps SCERA's operations running, in addition to highlighting special projects. By doing so, SCERA is providing a more comprehensive view of the strategic work that staff is performing annually.

SCERA discussed the status of its reserves, pursuant to the Cost of Living Adjustment (COLA) policy, and communicated to the Sonoma County Administrator and Sonoma County Association of Retired Employees' Board President the inability to recommend a COLA based upon the insufficiency of the reserves, the loss of purchasing power since the last COLA was granted, and the cost of a COLA should one be able to be granted.

Governance, *continued*

SCERA updated its IRS regulation covering minimum distribution rules to reflect a change in federal law that increased the age at which a deferred member must take a retirement allowance or withdrawal from the fund. SCERA regulations are approved by the Sonoma County Board of Supervisors before they are implemented.

Retirement Board

2020 saw the reelection of Neil Baker to the Retired Alternate position, and the election of Tim Tuscany to the Retired Member position, replacing long time Board Member John Pels for the term beginning January 1, 2021. Greg Jahn and Joe Tambe were both reappointed to the Board by the Sonoma County Board of Supervisors for the term beginning January 1, 2021. We are very pleased with the election and appointment of these Trustees and greatly appreciate the continuity of our Board. The Board officers consist of Brian Williams, Chair, and Robert Williamson, Vice Chair, and our Investment Committee officers consist of Greg Jahn, Chair, and Erick Roeser, Vice Chair.

Certificates of Achievement

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to SCERA for its Comprehensive Annual Financial Report for the fiscal year ended December 31, 2019. In order to be awarded a Certificate of Achievement, a government agency must publish an easily readable and efficiently organized Annual Comprehensive Financial Report. This report must satisfy both generally accepted accounting principles and applicable legal requirements. A Certificate of Achievement is valid for a period of one year only. This is the twenty first consecutive year that a Certificate of Achievement has been received for the SCERA Annual Comprehensive Financial Report.

SCERA received from the GFOA an Award for Outstanding Achievement in Popular Annual Financial Reporting for its Popular Annual Financial Report (PAFR) for the fiscal year ended December 31, 2019. The PAFR is sent to all SCERA members and includes highlights of the Annual Comprehensive Financial Report. This was the sixteenth year the PAFR was submitted to the GFOA and we are very pleased that the PAFR again received the Certificate of Achievement.

The Public Pension Coordinating Council (PPCC) presented its Public Pension Standards Award to SCERA in recognition of compliance with professional standards for plan funding and administration for 2019. This is the fifth year SCERA participated in and received an award from the PPCC program which judges a retirement system's Comprehensive Benefit Program, Funding Adequacy, Actuarial Valuation, Independent Audit, Investments and Communications.

Acknowledgements

The compilation of this report reflects the combined and dedicated effort of SCERA's staff under the leadership of the Board of Retirement. 2020 shaped up to be more challenging than 2019 in terms of wide scale disasters with a pandemic and then a wildfire. The pandemic caused SCERA to shift its thinking to accommodate shelter in place orders and safety protocols in the office. As has always been the case, SCERA staff and the Board kept SCERA operations running smoothly. I am very proud of the dedication shown by each member of the SCERA team, and our advisors, to continue to serve our members, invest plan assets, participate in public meetings and perform all the necessary tasks to keep this system running smoothly. I am honored to be part of such an excellent organization.

Respectfully submitted,

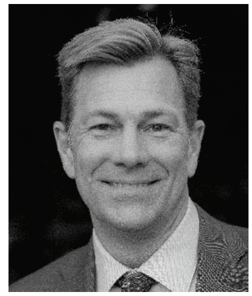
Julie Wyne
Chief Executive Officer

Members of the Board of Retirement

As of December 31, 2020

Chair
Christel Querijero

Elected by General Members.
Present term expires
December 31, 2020

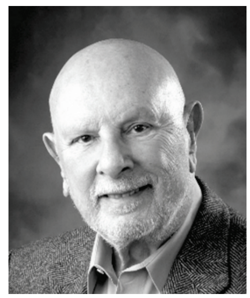


Trustee
Erick Roeser

Auditor/Controller/
Treasurer/Tax Collector
Ex-Officio Trustee

Trustee
Travis Balzarini

Elected by General Members.
Present term expires
December 31, 2022



Trustee
Joe Tambe

Appointed by Board of Supervisors.
Present term expires
December 31, 2020

Trustee
Susan Gorin

Appointed by Board of Supervisors.
Present term expires
December 31, 2021

Trustee
Brian Williams

Elected by Safety Members.
Present term expires
December 31, 2021

Trustee
Greg Jahn

Appointed by Board of Supervisors.
Present term expires
December 31, 2020

Trustee
Robert Williamson

Appointed by Board of Supervisors.
Present term expires
December 31, 2022

Trustee
John Pels

Elected by Retiree Members.
Present term expires
December 31, 2020

Alternate Trustee
Neil Baker

Elected by Retiree Members.
Present term expires
December 31, 2020

Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

Sonoma County Employees' Retirement Association

California

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

December 31, 2019

Christopher P. Morrill

Executive Director/CEO

PPCC

Public Pension Coordinating Council

Public Pension Standards Award
For Funding and Administration
2019

Presented to

Sonoma County Employees' Retirement Association

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

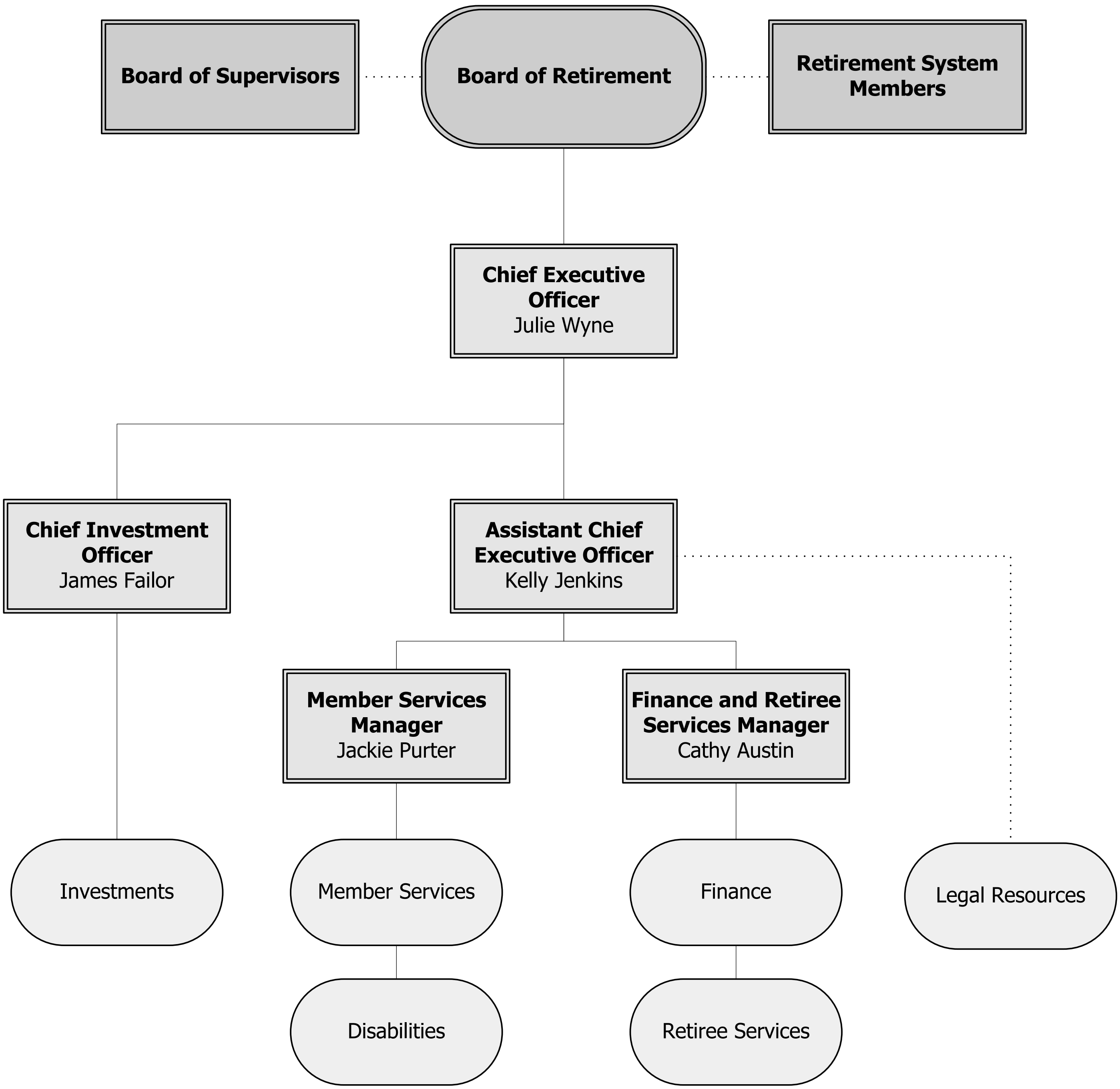
Presented by the Public Pension Coordinating Council, a confederation of

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

Alan H. Winkle

Alan H. Winkle
Program Administrator

Administrative Organization Chart



See page 10 for consulting services and investment managers and pages 59 and 60 for schedules of management fees and commissions.

List of Professional Consultants
as of December 31, 2020

Consulting Services

Actuary
Segal Consulting

Auditors
Brown Armstrong Accountancy Corporation

Investment Custodians
State Street, Inc.

Data Processing
Information Systems, County of Sonoma
Levi, Ray and Shoup

Investment Consultants
Aon Hewitt Investment Consulting, Inc. (Aon)

Legal Counsel
County Counsel, County of Sonoma
Ice Miller, LLP
Mayer Brown LLP
Nossaman, LLP

Investment Managers

Fixed Income
DoubleLine Capital LP
Guggenheim Partners Investment Management LLC
Pacific Investment Management Company (PIMCO)
Reams Asset Management Company

Broad Mandate Equity
Jacobs Levy

Large Cap Equity
State Street Global Advisors

Small Cap Equity
Systematic Financial Management

Non-US Equity
Arrowstreet Capital
State Street Global Advisors

Global Equity
Dodge and Cox
Grantham, Mayo, Van Otterloo and Company
Hexavest

Real Estate
J.P. Morgan
UBS Realty Investors
UBS Agrivest

Infrastructure
IFM Investors
Axium

Opportunistic
Davidson Kempner

Cash Overlay
Parametric

Financial Section

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

BROWN ARMSTRONG
Certified Public Accountants

INDEPENDENT AUDITOR'S REPORT

To the Board of Retirement of the
Sonoma County Employees' Retirement Association
Santa Rosa, California

Report on the Financial Statements

We have audited the accompanying Statement of Fiduciary Net Position of the Sonoma County Employees' Retirement Association (SCERA), a pension trust fund of the County of Sonoma, as of and for the year December 31, 2020, and the related Statement of Changes in Fiduciary Net Position for the year then ended and the related notes to the financial statements, which collectively comprise SCERA's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

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

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the basic financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the basic financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to SCERA's preparation and fair presentation of the basic financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of SCERA'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 basic financial statements.

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

Opinion

In our opinion, the basic financial statements referred to above present fairly, in all material respects, the fiduciary net position of SCERA as of December 31, 2020, and the changes in fiduciary net position for the year then ended 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 (MD&A) and required supplementary information (RSI), 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 (GASB), who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the MD&A and RSI in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise SCERA's basic financial statements. The other supplementary information and the introductory, investment, actuarial, and statistical 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 other supplementary information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the other supplementary information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

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

Report on Summarized Comparative Information

We have previously audited SCERA's December 31, 2019, financial statements, and our report dated June 5, 2020, expressed an unmodified opinion on those audited financial statements. In our opinion, the summarized comparative information presented herein as of and for the year ended December 31, 2019, is consistent in all material respects, with the audited financial statements from which it has been derived.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated May 27, 2021, on our consideration of SCERA'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 SCERA'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 SCERA's internal control over financial reporting and compliance.

BROWN ARMSTRONG
ACCOUNTANCY CORPORATION
Brown Armstrong
Accountancy Corporation

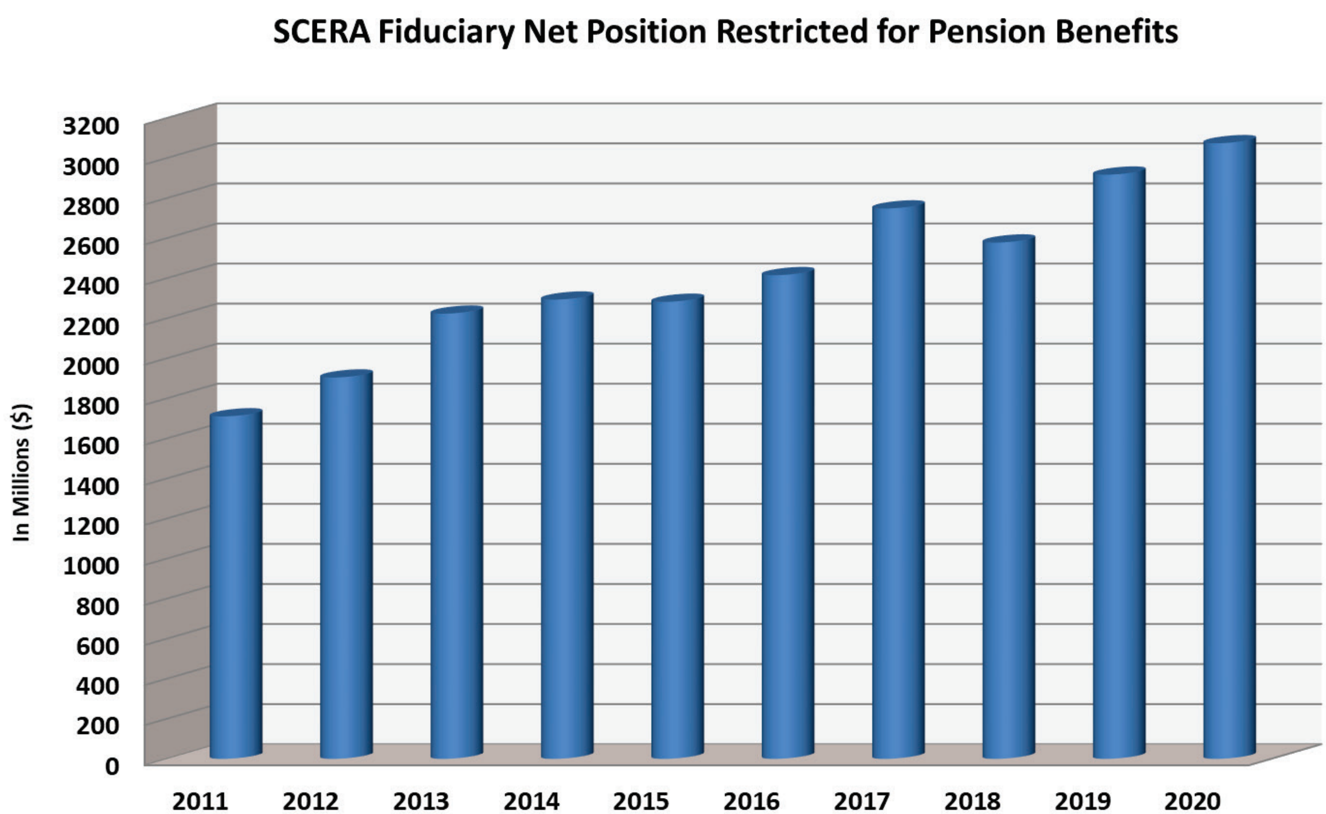
Stockton, California
May 27, 2021

Sonoma County Employees' Retirement Association
433 Aviation Boulevard, Suite 100
Santa Rosa, California 95403
(707) 565-8100 Fax (707) 565-8102

The following section provides an overview and analysis of SCERA's financial activities for the year ended December 31, 2020. We encourage readers to take into account the information presented here in conjunction with additional information we have furnished in the Letter of Transmittal beginning on page 2 of this report.

Financial Highlights

- SCERA's fiduciary net position as of December 31, 2020 is $3,073.7 million. This amount reflects an increase of 5% in fiduciary net position during 2020, primarily as a result of a net investment gain of $225.0 million.
- SCERA's funding objective is to meet the long-term benefit obligations through contributions and investmer t
;
%. The funding ratio is computed by the actuary and uses the actuarial value of assets that incorporate smoothing of investment returns over a five-year period. If the fair value of assets were used as of December 31, 2020, the funded ratio for SCERA would be approximately 94.2%.
- Revenues (additions to plan assets) for the year were $349.9 million. This was comprised of $77.5 million of employer contributions, $47.4 million of member contributions, and an investment gain of $225.0 million.
- Expenses (deductions in plan assets) for the year were $193.1 million, an increase of $6.8 million (4%) over the prior year. The majority of the increase in expenses came from $7.3 million (4%) increase in pension benefit payments and refunds. Administrative and other expenses decreased 0.5 million (14%) from the prior year.



Overview of the Financial Statements

The following discussion and analysis are intended to serve as an introduction to SCERA's financial statements, which are comprised of the following components:

- Statement of Fiduciary Net Position (page 21)
- Statement of Changes in Fiduciary Net Position (page 22)
- Notes to the Financial Statements (pages 23 through 40)

The Statement of Fiduciary Net Position is a snapshot of account balances at year-end. It indicates the assets available for future payments to retirees and any current liabilities owed at this time.

The Statement of Changes in Fiduciary Net Position provides a view of the current year additions to and deductions from the System. This statement covers the activity over a one-year period.

These statements are in compliance with various pronouncements of the Governmental Accounting Standards Board (GASB) in accordance with Generally Accepted Accounting Principles (GAAP).

These pronouncements require certain disclosures and also require the state and local governments to report using the full accrual method of accounting. SCERA complies with all material, applicable aspects of these pronouncements.

The Statement of Fiduciary Net Position and Statement of Changes in Fiduciary Net Position report information about SCERA's activities. These statements include all assets and liabilities, using the full accrual basis of accounting, which is similar to the accounting used by most private-sector companies. All of the current year's revenues and expenses are taken into account regardless of when the cash is received or paid. All investment gains and losses are shown at trade date, not settlement date. In addition, both realized and unrealized gains and losses are shown on investments. All capital assets are depreciated over their useful lives.

Over time, increases and decreases in SCERA's fiduciary net position are one indicator of whether its financial health is improving or deteriorating. There are other factors that should also be considered in measuring SCERA's overall financial health.

The Notes to the Financial Statements provide additional information that is essential to a full understanding of the data provided in the financial statements. Please note that this report also contains required supplementary information and other supplementary information in addition to the basic financial statements themselves.

SCERA Fiduciary Net Position

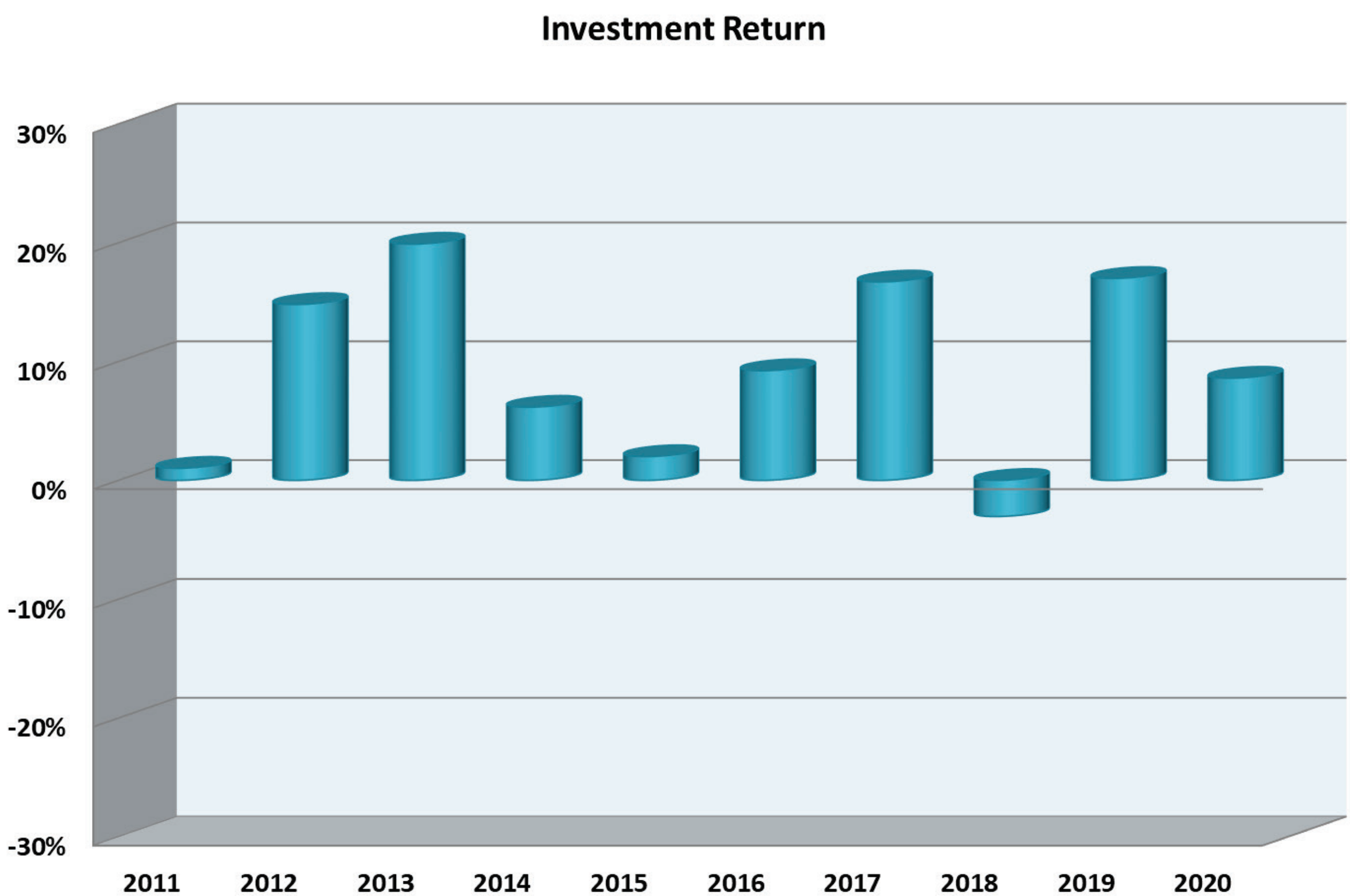
(Dollars in Thousands)	**12/31/2020**	**12/31/2019**	Increase (Decrease) Amount	% Change
Cash and Short-Term Investments	$ 141,308	$ 165,029	$(23,721)	(14)%
Receivables	77,339	51,929	25,410	49%
Investments	3,019,883	2,857,435	162,448	6%
Securities Lending Collateral	81,408	105,224	(23,816)	(23)%
Prepaid Expense	69	98	(29)	(30)%
Capital Assets, net	1,979	2,093	(114)	(5)%
Total Assets	3,321,986	3,181,808	140,178	4%
Accounts Payable	2,811	4,195	(1,384)	(33)%
Security Purchases Payable	109,200	95,312	13,888	15%
Collateral Held for Securities Lent	81,408	105,224	(23,816)	(23)%
Unearned Revenue	54,892	60,187	(5,295)	(9)%
Total Liabilities	248,311	264,918	(16,607)	(6)%
Fiduciary Net Position Restricted for Pension Benefits	$3,073,675	$2,916,890	$156,785	5%

The Retirement Fund as a Whole

SCERA's fiduciary net position increased 5% in 2020 reflecting investment returns of 8.6%, combined with pension benefit and refund payment increases of 4%. However, as you can see from the ten-year investment return graph below, investment returns can vary significantly from year to year. SCERA maintains a diversified investment portfolio and asset allocation that is structured to meet the long-term funding requirements of the System. Reflective of variations in the investment markets, the five, ten and twenty year returns are 9.4%, 8.9% and 6.5%, respectively. This illustrates the importance of a long-term investment strategy incorporating structured diversification and a balanced investment portfolio. SCERA Management and Actuary concur that SCERA remains in a financial position that will enable the System to meet its obligations to participants and beneficiaries. The current financial position results from a strong and successful investment program, risk management and strategic planning.

Investment Analysis

Investment returns, gross of fees, were good in 2020 with a gain of 8.6%. The returns were very strong in 2019 with a gain of 17.0% at the total portfolio level. SCERA's asset allocation includes 21.5% US equities, 21.5% international equities, 18% global equities, 19% fixed income, and 20% real assets. SCERA's asset allocation is set based on a comprehensive investment policy. SCERA's equity returns were 8.8%, 7.3% and 11.4% for the one, three and five-year periods ended December 31, 2020, respectively. SCERA's returns for fixed income over these same periods were 9.0%, 5.6% and 5.2%, respectively. Real assets produced returns of 2.7%, 5.0% and 5.9%, respectively, for the same one, three and five year periods. For additional information on SCERA investments see the Investment Section (pages 50 through 63).



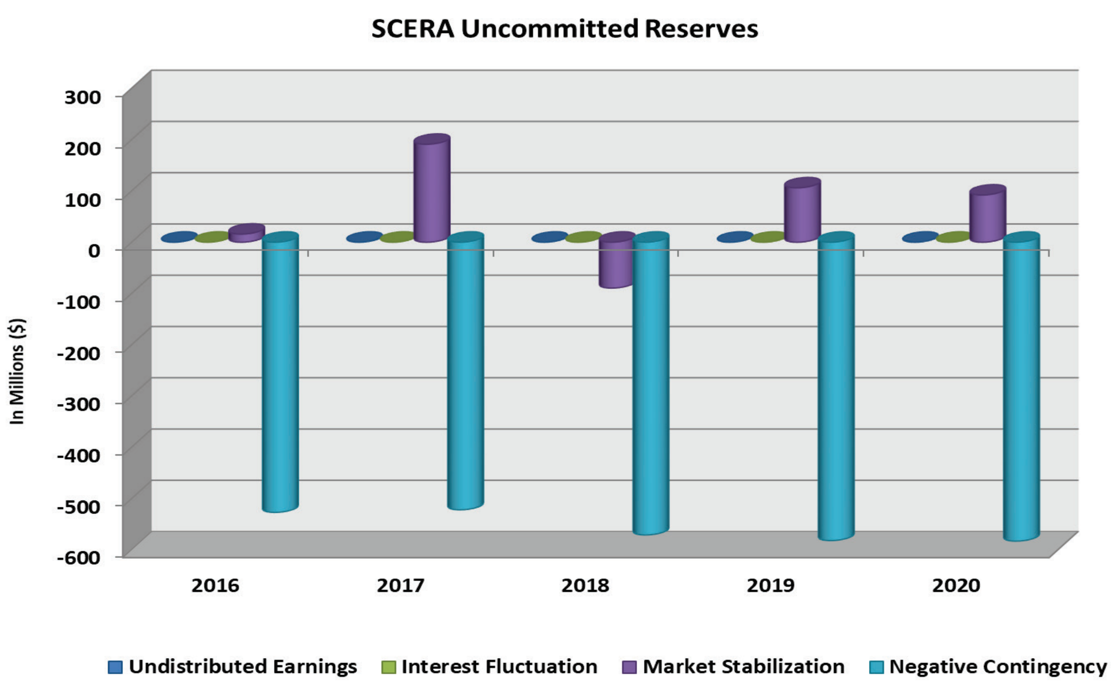
SCERA Reserves

(Dollars in Thousands)	12/31/2020	12/31/2019	12/31/2018
Member Reserve	$ 603,510	$ 593,656	$ 600,487
Employer Reserve	944,942	835,234	755,645
Annuitant Reserve	1,986,462	1,930,871	1,847,309
Cost of Living Reserve-Current	29,808	32,193	35,157
Interest Fluctuation Reserve	0	0	0
Market Stabilization Reserve	91,988	105,598	(89,536)
Negative Contingency Reserve	(583,035)	(580,662)	(571,253)
Unreserved	0	0	0
Total	**$3,073,675**	**$2,916,890**	**$2,577,809**

Reserves

SCERA's reserves are established from contributions and the accumulation of investment income after satisfying investment and administrative expenses. They are not required by GAAP, but they equate to the fiduciary net position restricted for pension benefits. Under GAAP, investments are stated at fair value instead of cost and include the recognition of unrealized gains and losses in the current period. SCERA has adopted a five-year smoothing methodology for investment gains and losses. As a result, investment gains and losses are held in the Market Stabilization Reserve account and recognized over a five-year period. This has the effect of smoothing both positive and negative fluctuations in investment performance versus assumptions and has a stabilizing effect on contribution rates. An understanding of the smoothing methodology is an essential part of measuring SCERA's overall financial health.

Investment returns were 8.6% in 2020, which is better than the assumed rate of 7.0%. The 2020 results were included in 5-year smoothing bringing the Market Stabilization Reserve to a positive $92.0 million as of December 31, 2020. The Market Stabilization Reserve can vary widely from year to year as noted in this summary of reserves over the past three years. The fluctuation from year to year is due to investment performance versus the actuarial assumed rate-of-return and the five-year recognition of prior investment experience.



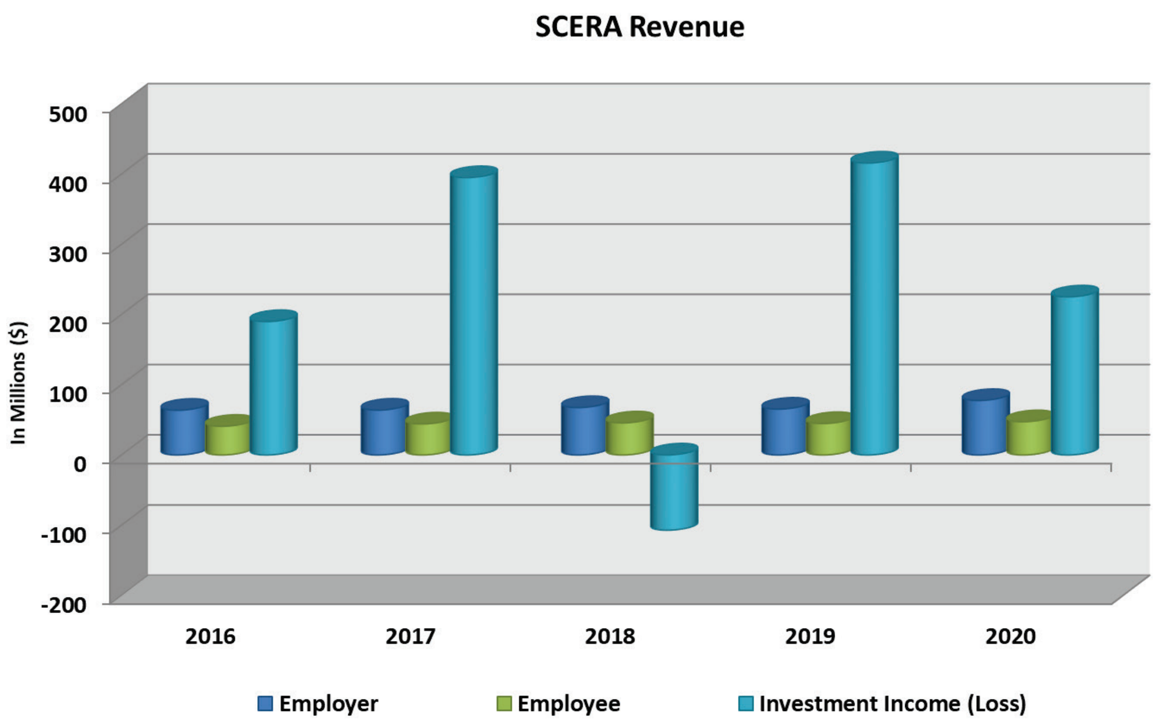
Changes in SCERA Fiduciary Net Position

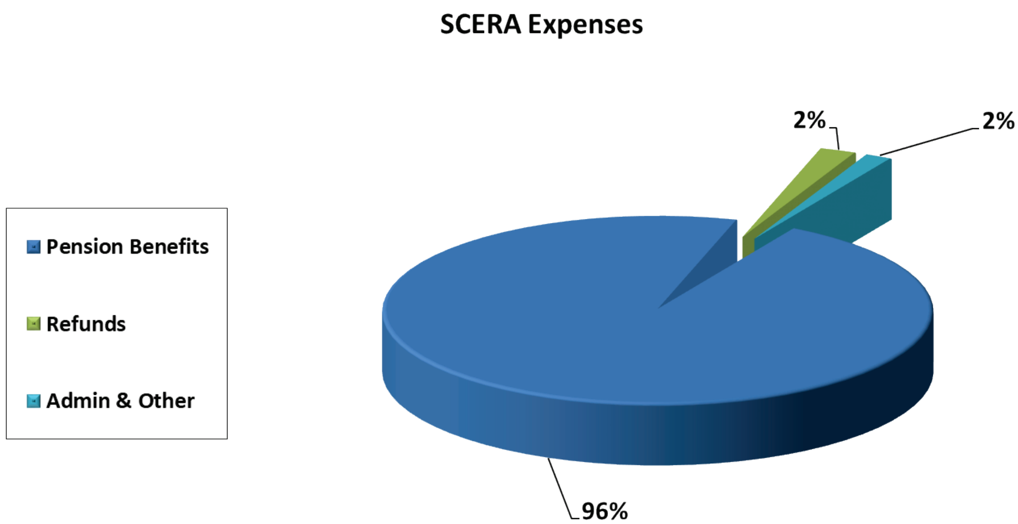
(Dollars in Thousands)	2020	2019	Increase (Decrease) Amount	% Change
Additions				
Employer Contributions	$ 77,506	$ 65,155	$ 12,351	19%
Member Contributions	47,364	44,659	2,705	6%
Net Investment Income/(Loss)	224,854	415,299	(190,445)	(46)%
Net Securities Lending Income	186	260	(74)	(28)%
Total Additions	349,910	525,373	(175,463)	(33)%
Deductions				
Pension Benefits	185,982	179,424	6,558	4%
Refunds of Contributions	4,111	3,322	789	24%
Administrative and Other Expenses	3,032	3,546	(514)	(14)%
Total Deductions	193,125	186,292	6,833	4%
Change in Fiduciary Net Position	156,785	339,081	(182,296)	(54)%
Fiduciary Net Position at Beginning of Year	2,916,890	2,577,809	339,081	13%
Fiduciary Net Position at End of Year	$3,073,675	$2,916,890	$ 156,785	5%

Revenues (Additions to Net Position)

The sources to finance the benefits SCERA provides to its members are accumulated through income on investments and through the collection of employee and employer contributions. These income sources for the fiscal year ended December 31, 2020 totaled $349.9 million. Revenues in 2020 can be attributed primarily to positive investment earnings as well as both employer and employee contributions.

Good investment income in 2020 was the result of strong equity and fixed income returns. The 2020 return on investments was a positive 8.6%, which followed the very strong returns of 17.0% in 2019. The total balance of investment assets (less collateral held for securities on loan) increased from approximately $2,857 million in 2019 to $3,020 million in 2020.





Expenses (Deductions in Net Position)

The primary uses of SCERA assets are the payment of benefits to retirees and their beneficiaries, refunds of contributions to terminated employees, and the cost of administering the System. These expenses for the fiscal year ended December 31, 2020 were $193.1 million, an increase of $6.8 million, or 4%, compared to expenses of $186.3 million for the year ended December 31, 2019. Pension benefits and refunds increased 4% due to an increasing number of retirees and withdrawals in 2020. Administrative and other expenses decreased by 14% in 2020, made up in large part of a decrease in both actuarial and legal expenses.

Fiduciary Responsibility

SCERA's Board of Retirement and management staff are fiduciaries of the pension trust fund. Under the California Constitution and California state law, the assets can only be used for the exclusive benefit of plan participants and their beneficiaries, and to defray the administrative and investment expenses of administering the System.

Requests for Information

The financial report is designed to provide the Retirement Board, our membership, taxpayers, investment managers and creditors with a general overview of SCERA finances and to account for the money it receives. Questions concerning any of the information in this report or requests for additional financial information should be addressed to:

SCERA
433 Aviation Boulevard, Suite 100
Santa Rosa, CA 95403

Respectfully submitted,

Cathy Austin
Finance and Retiree Services Manager

Statement of Fiduciary Net Position

As of December 31, 2020 (with Comparative Totals)

(Dollars in Thousands)	2020 Total	2019 Total
Assets		
Cash and Short-term Investments (Note D)	$ 141,308	$ 165,029
Receivables		
Employer Contributions	2,703	2,199
Interest and Dividends	5,034	5,738
Securities Sold	69,602	43,992
Total Receivables	77,339	51,929
Investments at Fair Value (Note E)		
Fixed Income	504,235	536,928
Equities	1,756,950	1,607,566
Real Assets	553,860	510,911
Asset Allocation	151,334	140,932
Opportunistic	53,504	61,098
Collateral Held for Securities Lent (Note F)	81,408	105,224
Total Investments	3,101,291	2,962,659
Prepaid Expense	69	98
Capital Assets Net of Depreciation (Note I)	1,979	2,093
Total Assets	**3,321,986**	**3,181,808**
Liabilities		
Accounts Payable (Note J)	2,811	4,195
Security Purchases Payable	109,200	95,312
Collateral Held for Securities Lent (Note F)	81,408	105,224
Unearned Revenue (Note K)	54,892	60,187
Total Liabilities	**248,311**	**264,918**
Fiduciary Net Position Restricted for Pension Benefits	**$3,073,675**	**$2,916,890**

The notes to the financial statements are an integral part of this statement.

Statement of Changes in Fiduciary Net Position

For the Year Ended December 31, 2020 (with Comparative Totals)

(Dollars in Thousands)	2020 Total	2019 Total
Additions		
Contributions (Note M)		
Employer	$ 77,506	$ 65,155
Member	47,364	44,659
Total Contributions	124,870	109,814
Investment Income		
From Investing Activities		
Net Appreciation/(Depreciation) in Fair Value of Investments	191,740	372,488
Investment Income	50,891	61,745
	242,631	434,233
Less Expenses From Investing Activities	13,707	14,887
Less Allowance for Earnings on Unearned Revenue (Note K)	4,070	4,047
Net Investing Activity Income/(Loss)	224,854	415,299
From Securities Lending Activities		
Gross Securities Lending Income	287	668
Plus: Borrower Rebates	(56)	(348)
Less: Agent Fees	45	60
Net Securities Lending Income	186	260
Total Net Investment Income/(Loss)	225,040	415,559
Total Additions	**349,910**	**525,373**
Deductions		
Pension Benefits	185,982	179,424
Refunds of Contributions	4,111	3,322
Actuarial Study Fees	160	295
Attorney Fees	26	99
Administrative Expenses	2,846	3,152
Total Deductions	**193,125**	**186,292**
Change in Fiduciary Net Position	156,785	339,081
Fiduciary Net Position Restricted for Pension Benefits		
Balance at Beginning of Year	2,916,890	2,577,809
Balance at End of Year	**$3,073,675**	**$2,916,890**

The notes to the financial statements are an integral part of this statement.

Notes To The Financial Statements

The Sonoma County Employees' Retirement Association was organized under the provisions of the County Employees Retirement Law of 1937 on January 1, 1946. The Sonoma County Board of Supervisors may adopt resolutions, as permitted by the County Employees Retirement Law of 1937, which may affect benefits of SCERA members. On September 12, 2012, the California Public Employees’ Pension Reform Act (PEPRA) was signed into law. In order to comply with this law, a new tier, Plan B, was established for both General and Safety members who enter the System on or after January 1, 2013. SCERA administers a cost-sharing, multiple-employer Defined Benefit Pension Plan (DBPP) and serves as a distribution agent for Post-Employment Healthcare Plans (PHP) for both the County of Sonoma and the Superior Court.

A. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Reporting Entity

SCERA, with its own governing board, is an independent governmental entity separate and distinct from the County of Sonoma. SCERA’s annual financial statements are included in the County of Sonoma’s Comprehensive Annual Financial Report as a pension trust fund.

Basis of Accounting

SCERA follows the accounting principles and reporting guidelines as set forth by the Governmental Accounting Standards Board (GASB). The financial statements are prepared using the accrual basis of accounting in accordance with the generally accepted accounting principles (GAAP) in the United States of America, under which revenues are recognized when earned and deductions are recorded when the liability is incurred. Plan member contributions are recognized in the period in which the contributions are due. Employer contributions are recognized when due and the employer has made a formal commitment to provide the contributions. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan. 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.

Valuation of Investments

Investments in securities are reported at fair value based upon closing sales prices reported on recognized securities exchanges on the last business day of the period, or for listed securities having no sales reported and for unlisted securities, based upon last reported bid prices. Purchases and sales of securities are accounted for on a trade date basis, and dividends declared but not received are accrued on the ex-dividend date. Realized gains and losses are determined on the basis of average costs.

Unsettled investment trades as of year-end are reported in the financial statements on an accrual basis of accounting. The corresponding funds receivable from a sale and funds payable for a purchase are reported in receivables-securities sold and liabilities-security purchases payable, respectively.

Investment Concentrations

The Board of Retirement Trustees’ policies and guidelines enable the portfolio to develop into numerous asset classes and to take advantage of professional investment managers with diverse management styles. The result is a well-diversified portfolio. The investment portfolio contained no concentration of investments in any one entity that represented 5% or more of the total investment portfolio or the fiduciary net position.

Use of Estimates in the Preparation of Financial Statements

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

A. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES, *continued*

Capital Assets

Capital assets are carried at cost less accumulated depreciation. Depreciation is calculated using the straight-line method with a 5-year life for computer hardware and software, 5-year life for equipment and furniture, 10-year life for building improvements, 10-year life for integrated pension systems and 30-year life for buildings. Leasehold improvements are depreciated over the life of the lease.

Administrative Expenses

SCERA's Board of Retirement (Board) annually adopts the operating budget for the administration of SCERA. The administrative expenses are charged against SCERA's earnings and are limited to twenty-one hundredths of one percent of the accrued actuarial liability of the retirement system, as set forth under Government Code Section 31580.2.

Reclassification

Certain amounts in the prior year financial statements have been reclassified for comparative purposes to conform to the presentation in the current year financial statements. These reclassifications had no effect upon reported fiduciary net position restricted for pension benefits.

B. PENSION PLAN DESCRIPTION

General Information

Members include employees in a permanent position of at least half time in the County of Sonoma, Water Agency, Sonoma Valley Fire District, Transportation Authority, Superior Court, and Community Development Commission. Plan members are classified as either General or Safety. Membership becomes effective on the first day of entrance into eligible service. The System provides member benefits as defined by law upon retirement, death, or disability.

Management of the System is vested in the SCERA Board of Retirement, with the Chief Executive Officer serving at the discretion of the Board. The Board of Retirement consists of nine voting trustees and one alternate trustee. Four trustees are appointed by the County of Sonoma's Board of Supervisors, five trustees (including the one alternate) are elected by the members of SCERA. General members elect two trustees, Safety members elect one trustee, and retired members elect one trustee and one alternate trustee. The County of Sonoma Treasurer is an ex-officio trustee. Board trustees serve three year terms, with the exception of the County Treasurer, who serves during their tenure in office.

At December 31, 2020, the total annual employees' payroll covered by the System was $373,107,000.

At December 31, 2020, plan membership consisted of the following:

	2020
Retired Members and Beneficiaries	
General Members	4,339
Safety Members	1,008
Subtotal	**5,347**
Current Members	
General Members	3,368
Safety Members	722
Subtotal	**4,090**
Deferred Members	
General Members	1,217
Safety Members	228
Subtotal	**1,445**
Total General Membership	***8,924***
Total Safety Membership	***1,958***
Total Membership	**10,882**

Benefit Provisions

Vesting and Retirement Eligibility. Upon completing five years of creditable service, employees have non-revocable rights to receive benefits attributable to employer's contributions, provided employee contributions have not been withdrawn. Plan A members are eligible to retire at age 50 with ten years of service or thirty years of service (safety members- twenty years) regardless of age. Plan B General members are eligible to retire at age 52 with five years of service; Plan B Safety members are eligible to retire at age 50 with five years of service. Members in all plans are eligible to retire at age 70, regardless of years of service.

B. PENSION PLAN DESCRIPTION, *continued*

Benefit Provisions, *continued*

Basis of Benefit Payments. Benefits are based upon a combination of age, years of service, highest average compensation and the benefit payment option selected by the member. For Plan A members, highest average compensation is defined as the highest 12 consecutive months of compensation earnable. The maximum benefit payable to a member or beneficiary is 100% of the highest average compensation. For Plan B members, highest average compensation is based on the highest 36 consecutive months of pensionable compensation. Additionally Plan B members are limited in the amount of compensation used to calculate a benefit to 100% of the Social Security taxable wage base limit in 2013, adjusted for inflation (or 120% for non-Social Security integrated positions).

Cost of Living Benefits. SCERA has approved, on an ad hoc basis, several one-time, post-retirement cost of living increases (COLAs), the last of which was in 2008. These cost of living increases have been fully funded by transfers from the Undistributed Earnings Reserve or Interest Fluctuation Reserve into the Cost of Living Reserve account.

Disability Benefits. Members with 5 years of service, regardless of age, are eligible to apply for a non-service connected disability. The benefit for Plan A General members, Plan A Safety members, and Plan B Safety members is 1.8% of highest average compensation for each year of service; the benefit for Plan B General members is 1.5% of highest average compensation for each year of service. The maximum benefit for both Plans is 1/3 of highest average compensation.

All employees, regardless of years of service, are eligible for service connected disability. A service connected disability benefit is the greater of 50% of highest average compensation or a service retirement benefit.

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

If a member dies while eligible for service retirement or non-service connected disability, the member’s spouse/registered domestic partner receives 60% of the allowance that the member would have received for retirement on the day of the member’s death.

If a member dies in the performance of duty, the spouse/registered domestic partner will receive a lifetime benefit equal to 50% of the member's highest average compensation or a service retirement benefit, whichever is higher.

Death Benefit - After Retirement. As part of the retirement process, members are required to select among several options for benefits continuation upon the member's death. For married / registered domestic partner retirees, the most common retirement option is the unmodified option, which pays the retiree's eligible spouse or registered domestic partner a lifetime benefit equal to 60% of the benefit the retiree was receiving.

Return of Contributions. If a member should resign or die before becoming eligible for retirement, the member’s contributions plus interest may be refunded. In lieu of receiving a return of contributions, a resigning member may elect to leave the member’s contributions on deposit.

C. POST-EMPLOYMENT HEALTHCARE PLAN DESCRIPTION

General Information

The County of Sonoma and the Superior Court provide other post-employment benefits to retirees. Both of these employers currently reimburse Medicare premiums to each retired employee who is covered under Medicare Parts A and B.

SCERA does not determine eligibility nor negotiate for the healthcare benefits, but acts solely as a conduit which deducts premiums from benefit payments and forwards these deductions to the employers. The County of Sonoma and Superior Court pay an annual fee to SCERA for the processing of retiree health insurance deductions. Benefit eligibility, coverage and premium cost negotiations are the responsibility of the employers. As such, GASB Statement No. 74 does not apply.

D. CASH AND SHORT-TERM INVESTMENTS

Cash and short-term investments consist of short-term investments with fiscal agents as well as deposits held in a pooled account with the County of Sonoma. All participants in the pool share earnings and losses. Short-term investments consist of cash held in money market accounts and securities readily convertible to cash. All cash, deposits and short-term investments are carried at cost, which approximates fair value. The Sonoma County Treasury Oversight Committee has regulatory oversight for all monies deposited into the Sonoma County Treasury Pool. Such amounts are invested in accordance with investment policy guidelines established by the County Treasurer and reviewed by the County Board of Supervisors. The objectives of the policy are, in order of priority, safety of principal, liquidity and yield. Similarly, the short-term investment fund held by State Street Bank (which is a liquidity fund investing in short-term investment securities) is carried at cost, which approximates fair value.

A summary of cash and short-term investments, as of December 31, 2020

Cash and Short-Term Investment Funds (held by)	
(Dollars in Thousands)	**2020**
County Treasury	$ 2,966
Custodian Bank	138,342
Total	$141,308

The vast majority of the above cash is overlaid with stock and bond futures contracts so there is little to no economic exposure to cash.

E. DEPOSITS AND INVESTMENTS

State Street Bank serves as custodian of SCERA's investments. SCERA's asset classes include US Equity, Non-US Equity, Global Equity, Fixed Income, Real Assets and Opportunistic. Any class may be held in direct form, pooled form, or both. SCERA has 18 investment managers, managing 19 individual portfolios.

Investments at December 31, 2020 consist of the following (excluding collateral held for securities lending as described in Note F):

Investments at Fair Value	
(Dollars in Thousands)	**2020**
Fixed Income	$ 504,235
Equities	1,756,950
Real Assets	553,860
Asset Allocation	151,334
Opportunistic	53,504
Total Investments	$3,019,883

The Board has established a policy for investing, specifying the following target allocations with a minimum and maximum range for each of these asset classes.

Asset Class	Min	Target	Max
Core Plus Fixed Income	14.0%	16.0%	18.0%
Alternative Fixed Income	2.0%	3.0%	4.0%
Real Assets	17.0%	20.0%	23.0%
U.S. Equities	19.5%	21.5%	23.5%
Non-U.S. Equities	19.5%	21.5%	23.5%
Global Equities	16.0%	18.0%	20.0%
Opportunistic	0.0%	0.0%	6.0%
Total		100%	

The asset allocation is incorporated into SCERA's Investment Policy Statement, which helps guide the manner in which SCERA invests. In November 2020 The Board elected to remove Global Asset Allocation from the Plan's Investment Policy and to defund the current manager's account throughout 2021. The Board has adopted a long-term investment horizon such that the likelihood and durations of investment losses are carefully weighed against the long-term potential for appreciation of assets. The assets of SCERA will be invested in a manner that provides the safeguards and diversity to which a prudent investor would adhere. No more than 5%, or the benchmark weight plus 2.5%, whichever is higher, of any one manager's portfolio shall be invested in the securities of any one issuing corporation at cost. Investments in any corporation should not exceed 10% of the outstanding shares of the corporation.

E. DEPOSITS AND INVESTMENTS, *continued*

The Board's investment policies and guidelines permit investment in numerous specified asset classes to take advantage of the non-correlated economic behavior of diverse asset classes. The risk to be assumed must be considered appropriate for the return anticipated and consistent with the total diversification of the System. The result is a well-diversified portfolio.

Custodial Credit Risk

Custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, the System will not be able to recover the value of its investment or collateral securities that are in the possession of another party. SCERA investment securities are not exposed to custodial credit risk since all securities are registered in the System's name and held by the System's custodial bank.

Custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, the System will not be able to recover its deposits or collateral securities that are in the possession of an outside party. Any cash associated with the System's investment portfolios not invested at the end of a day are temporarily swept overnight to State Street Bank's short-term investment fund.

That portion of the System's cash held by the County of Sonoma as part of the County's treasury pool totaled $2,966,000 as of December 31, 2020. Accordingly, SCERA's investments in the treasury pool are held in the name of the County and are not specifically identifiable.

Disclosure of the legal and contractual provisions of the County's Investment Policy and carrying amounts by type of investments may be found in the notes to the County's separate Comprehensive Annual Financial Report of the fiscal year ended June 30, 2020.

E. DEPOSITS AND INVESTMENTS, *continued*

Credit and Interest Rate Risk

Credit risk associated with SCERA's debt securities is identified by their ratings in the table following. Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. SCERA has no general policy on credit and interest rate risk. SCERA monitors the interest rate risk inherent in its portfolio by measuring the duration of its portfolio.

The average duration of SCERA's debt portfolio in years is also listed in the table below:

Type of Investment	Fair Value (Dollars in Thousands)	Credit Quality	Duration
US Treasury	$102,932	N/A	8.21
Mortgage Pass-Through	94,798	AA+	2.72
Bank Loans	84,620	B	0.14
Corporate	75,586	BBB	5.22
Collateralized Mortgage Obligation	72,836	BBB-	1.88
Asset Backed	27,021	BBB-	1.76
Yankees	21,066	BBB+	6.18
Commingled Fixed Income Funds	16,065	N/R	N/A
Foreign	5,017	BB-	4.17
Municipal	1,947	A+	11.45
Euro	1,481	BB-	6.23
Commercial Mortgage Backed Securities	467	AA-	2.35
Agency	399	AA+	11.49
Total	$504,235		

Per SCERA's Investment Policy Statement, fixed income portfolios must have an overall, fair value weighted average quality of at least AA-. At least 80% of the fair value of the portfolio must be rated at least Baa/BBB or the equivalent by a Nationally Recognized Statistical Rating Organization (NRSRO). In cases when the yield spread adequately compensates for additional risk, up to 20% of the value of each fixed income portfolio may be invested in below investment grade securities provided that they are easily tradable and overall fixed income quality is maintained. Up to a maximum of 2% of the portfolio may be invested in bonds rated CCC/Caa or lower. Fixed income securities of any one issuer shall not exceed 10% of the total bond portfolio at the time of purchase. This does not apply to issues of the US Treasury or securities guaranteed by the US Government. Mortgage or asset backed securities that are credit independent of the issuer shall be limited to 25% of the value of the total issue or pool.

Firms that manage fixed income portfolios continually monitor the risk associated with their fixed income investments. They are expected to provide, as a component of their reports, a risk/reward analysis of the management decisions relative to their benchmarks.

Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or deposit. SCERA's Investment Policy Statement expects investment managers will use forward currency exchange contracts and currency and stock index futures contracts and related options and transactions for defensive currency hedging. It is preferred that currency exposures be un-hedged, but may periodically be up to 100% hedged for a specific country or up to 30% of the total portfolio at the manager's discretion. Such transactions should not be speculative in nature and should not exceed the value of underlying securities holdings.

E. DEPOSITS AND INVESTMENTS, *continued*

Foreign Currency Risk, *continued*

The following positions represent SCERA's exposure to foreign currency risk as of December 31, 2020:

Securities Base Currency	Fair Value in USD (Dollars in Thousands)
Euro – EUR	$17,350
Japan – JPY	11,425
Great Britain – GBP	10,891
Switzerland – CHF	5,657
Hong Kong – HKD	5,009
South Korea – KRW	4,451
Canada – CAD	3,223
Denmark – DKK	3,172
Sweden – SEK	2,371
Australia – AUD	2,037
Taiwan – TWD	1,460
Brazil – BRL	1,221
Singapore – SGD	1,023
South Africa – ZAR	764
Norway – NOK	632
New Zealand – NZD	298
Israel – ILS	40
Total Non-USD Securities	$71,024

Derivatives

The Board authorized certain investment managers to invest in or otherwise enter into transactions involving derivative financial instruments when, in the judgment of management, such transactions are consistent with the investment objectives established for a specific investment manager's assignment. However such instruments shall not be used to create leverage or for speculative purposes.

The acceptable investment purposes for the use of derivatives include:

1. For defensive currency strategies of non-dollar portfolio holdings.
2. For controlling the duration of fixed income portfolios.
3. For managing yield curve strategies of fixed income portfolios.
4. For control of equity or fixed income exposure during portfolio transitions to overlay cash positions.
5. For effecting transitions to new investment managers.
6. For rebalancing the System's asset allocation toward Investment Policy Statement targets.

Risks arise from the possible inability of counterparties to meet the terms of their contract. The risks of accounting loss from these off-balance sheet transactions include the credit risk and the possibility that future changes in market prices may make such financial instruments less valuable (market risk).

Derivatives are carried as assets when the fair value is positive and as liabilities when the fair value is negative. Gains and losses from derivatives are included in net investment income/(loss). For financial reporting purposes all SCERA derivatives are classified as investment derivatives. The following are types of derivatives: futures contracts, forward contracts, option contracts and swap agreements.

Futures Contracts

A futures contract represents an agreement to buy (long position) or sell (short position) an underlying asset at a specified future date for a specified price. Payment for the transaction is delayed until a future date, which is referred to as the settlement or expiration date. Futures contracts are standardized contracts traded on organized exchanges. Futures contracts are priced "mark to markets" and daily settlements are recorded as investment gains or losses.

E. DEPOSITS AND INVESTMENTS, *continued*

Forward Contracts

A forward contract represents an agreement to buy or sell an underlying asset at a specified date in the future at a specified price. Payment for the transaction is delayed until the settlement or expiration date. A forward contract is a non-standardized contract that is tailored to each specific transaction. Forward contracts are privately negotiated and are intended to be held until the settlement date. Currency forward contracts are used to control currency exposure and facilitate the settlement of international security purchase and sale transactions.

Option Contracts

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

The seller (writer) has an obligation to buy or sell the underlying security if the buyer decides to exercise the option. At expiration, sale, or exercise, realized gains and losses are recognized.

Swap Agreements

A swap is an agreement between two or more parties to exchange a sequence of cash flows over a period of time in the future. No principal is exchanged at the beginning of the swap. The cash flows the counterparties exchange are tied to a notional amount. A swap agreement specifies the time period over which the periodic payments will be exchanged. The fair value represents the gains or losses as of the prior marking-to-market.

Investment Derivatives Summary
(Dollars in Thousands)

Derivative Type	Change in Fair Value	Fair Value	Notional
Futures	$49,951	$ 0	$ 45,381
Forwards	(4,038)	(226)	79,669
Options	(3,127)	(217)	(17)
Swaps – Credit Default	(3,282)	233	11,335
Swaps – Interest Rate	(2,044)	(170)	32,668
Total	$37,460	$(380)	$169,036

Investment Derivative Credit Risk

The credit risk of using derivative instruments may include the risk that counterparties to contracts will not perform and/or the public exchange will not meet its obligation to assume this counterparty risk. SCERA is exposed to credit risk on investment derivatives that are traded over the counter and are reported in asset positions.

Summary of Credit Ratings
(Dollars in Thousands)

Credit Rating	Fair Value
AA	$ 36
AA-	272
A+	35
A	267
Total subject to credit risk	$610

E. DEPOSITS AND INVESTMENTS, *continued*

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. These investments are disclosed in the following table.

Interest Rate Risk Analysis
(Dollars in Thousands)

Derivative Type	Interest Rate Derivatives
Fair Value	$63
Notional	$88,938
Reference Rate	Libor - 3 months

F. SECURITIES LENDING

State statutes do not prohibit SCERA from participating in securities lending transactions and SCERA has, via a Securities Lending Authorization Agreement with State Street Bank and Trust Company (collectively "State Street"), authorized State Street to lend its securities to broker-dealers and banks pursuant to a form of loan agreement.

During 2020, State Street lent, on behalf of SCERA, certain securities held by State Street as custodian and received cash (United States and foreign currency), securities issued or guaranteed by the United States government and irrevocable letters of credit as collateral. State Street did not have the ability to pledge or sell collateral securities absent a borrower default.

Borrowers were required to deliver collateral for each loan equal to (i) in the case of loaned securities denominated in United States dollars or sovereign debt issued by foreign governments, 102% of the fair value of the loaned securities; and (ii) in the case of loaned securities not denominated in United States dollars or whose primary trading market was not located in the United States, 105% of the fair value of the loaned securities.

SCERA did not impose any restrictions during 2020 on the amount of the loans that State Street made on its behalf and State Street had indemnified SCERA by agreeing to purchase replacement securities, or return the cash collateral in the event a borrower failed to return a loaned security or pay distributions thereon. There were no failures by any borrowers to return loaned securities or pay distributions thereon during 2020. There were no losses during 2020 resulting from a default of the borrowers.

During 2020, SCERA and the borrowers maintained the right to terminate all securities lending transactions on demand. The cash collateral received on each loan was invested, together with the cash collateral of other qualified tax-exempt plan lenders in a collective investment pool. As of December 31, 2020, such investment pool had an average duration of 47 days and an average weighted final maturity of 107 days. Because the loans were terminable at will, their duration did not generally match the duration of the investments made with cash collateral. On December 31, 2020, SCERA had no credit risk exposure to borrowers.

As of December 31, 2020, the fair value of the securities on loan was $91.7 million. The fair value of associated collateral was $93.4 million ($81.4 million of cash collateral and $12.0 of non-cash collateral). Non-cash collateral, which SCERA does not have the ability to sell unless the borrower defaults, is not reported in the Statement of Fiduciary Net Position.

Due to the nature of the securities lending program and State Street's collateralization of loans at 102% (or 105% for non-dollar securities), we believe that there is no credit risk as defined by GASB Statement No. 28 and GASB Statement No. 40.

G. SUMMARY OF INVESTMENT POLICIES

The County Employees Retirement Law of 1937 (Law) and the California Constitution vest the Board of Retirement with exclusive control over the investment of SCERA's investment portfolio. The Law allows for the Board to invest, or delegate the authority to invest, the investment portfolio through the purchase, holding, or sale of any form or type of investment, financial instrument or financial transaction when prudent in the informed opinion of the Board.

G. SUMMARY OF INVESTMENT POLICIES, *continued*

Additionally, the Law requires that the Board and its officers and employees shall discharge their duties with respect to SCERA and the investment portfolio as follows:

- Solely in the interest of, and for the exclusive purposes of, providing benefits to participants and their beneficiaries, and defraying reasonable expenses of administering SCERA.
- With the care, skill, prudence and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with these matters would use in the conduct of an enterprise of a like character and with like aims.
- Shall diversify the investment portfolio to minimize the risk of loss and maximize the rate-of-return, unless under the circumstances it is clearly prudent not to do so.

H. FAIR VALUE MEASUREMENTS

In 2016, SCERA adopted GASB Statement No. 72, *Fair Value Measurement and Application.* GASB 72 establishes a fair value hierarchy based on three types of input to develop the fair value measurements for investments. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; and Level 3 inputs are significant unobservable inputs.

Fixed income and equity securities classified in Level 1 are valued using prices quoted in active markets for those securities. Fixed income and equity securities classified in Level 2 are valued using prices determined by the use of matrix pricing techniques maintained by the various pricing vendors for those securities. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices. Investments classified in Level 3 are determined in good faith by the investment managers who utilize independent third party appraisals and operating results.

The categorization of SCERA's investments within the fair value hierarchy is based upon the pricing transparency of the instrument and should not be perceived as the particular investment's risk. Details are provided in the table on page 33.

H. FAIR VALUE MEASUREMENTS, *continued*

INVESTMENT TYPE (Dollars in Thousands)	**12/31/2020**	**Fair Value Measurements Using** Quoted Prices In Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Investments by Fair Value Level				
Fixed Income Securities				
Corporate Bonds	$ 120,650	$ 5,263	$ 115,387	$ 0
Bank Loans	84,620	0	80,981	3,639
CMO	70,056	0	70,056	0
FHLMC	15,830	0	15,830	0
FNMA	73,663	0	73,663	0
GNMA	5,304	0	5,304	0
U.S. Government Securities	107,909	0	107,909	0
Municipals	2,776	0	2,776	0
Asset-Backed Securities	23,427	0	23,427	0
Total Fixed Income Securities	**504,235**	**5,263**	**495,333**	**3,639**
Equity Securities				
Common Stock	1,755,351	1,521,367	233,984	0
Preferred Stock	1,599	1,599	0	0
Total Equity Securities	**1,756,950**	**1,522,966**	**233,984**	**0**
Asset Allocation	**151,334**	**151,334**	**0**	**0**
Real Assets	**553,860**	**0**	**0**	**553,860**
Collateral from Securities Lending	**81,408**	**0**	**81,408**	**0**
Limited Partnership (Opportunistic)	**53,504**	**0**	**0**	**53,504**
Total Investments	**$3,101,291**	**$1,679,563**	**$810,725**	**$611,003**

Derivatives				
Options	$(217)	$(217)	$ 0	$0
Swaps	63	0	63	0
Forwards	(226)	(226)	0	0
Total Derivatives	**$(380)**	**$(443)**	**$63**	**$0**

I. CAPITAL ASSETS

Capital asset activity for the year ended December 31, 2020 was as follows:

(Dollars in Thousands)	**12/31/2019**	Additions	Retirements	**12/31/2020**
Capital Assets, not being depreciated				
Land	$ 1,025	$ 0	$0	$ 1,025
Total Capital Assets, not being depreciated	1,025	0	0	1,025
Capital Assets, being depreciated				
Building	1,869	0	0	1,869
Building Remodel	1,087	0	0	1,087
Furniture & Equipment	107	0	0	107
Computer Software/Hardware	2,897	0	0	2,897
Total Capital Assets, being depreciated	5,960	0	0	5,960
Less accumulated depreciation for:				
Building	(905)	(64)	0	(969)
Building Remodel	(1,087)	0	0	(1,087)
Furniture & Equipment	(78)	(9)	0	(87)
Computer Software/Hardware	(2,822)	(41)	0	(2,863)
Total Accumulated Depreciation	(4,892)	(114)	0	(5,006)
Total Capital Assets being depreciated, net	1,068	(114)	0	954
Total Capital Assets, net	$ 2,093	$(114)	$0	$ 1,979

J. ACCOUNTS PAYABLE

Accounts payable as of December 31 consist of:

(Dollars in Thousands)	**2020**
Administrative Expenses	$ 172
Accrued Sick & Vacation Leave	376
Consulting & Management Fees	2,263
Total	$2,811

K. UNEARNED REVENUE

The County of Sonoma may prepay the current year and up to one additional year of employer "normal costs" and Unfunded Actuarial Accrued Liability (UAAL) contributions. These prepaid contributions are accounted for as unearned revenue. On each regular County payday, the actual earned contributions are transferred and recognized as revenue. The unearned revenue balance was $54.9 million as of December 31, 2020.

For the year ended December 31, 2020 and on a go-forward basis, these prepaid contributions held on account have received, and will continue to receive, a discount for early payment. The discount was calculated at the annual rate of 7.0%. Contribution revenues have been increased and investment income decreased to reflect this discount. For 2020 the discount earned was $4.1 million.

L. APPORTIONMENT OF EARNINGS

Interest is apportioned semi-annually at June 30th and December 31st (at one-half the annual actuarial investment earnings assumption rate) to the DBPP reserve accounts for all contributions on deposit for a full six months, with the exception of the Member Reserve accounts, which are credited at one-half of the yield on the 10-year Treasury Note at June 30 and December 31.

L. APPORTION OF EARNINGS, *continued*

The Employer Reserves are also credited with the dollar difference between the Member Reserve interest crediting rate and the annual actuarial investment earning assumption rate so that, in total, reserves are credited at the annual actuarial investment earnings assumption rate. At the annual actuarial assumed investment earnings rate of 7.0%, the interest apportioned for the year ended December 31, 2020 was $238.4 million.

In February 2020 CEO Julie Wyne presented to the Board the status of the reserves, loss of purchasing power and cost of a COLA, if one could be granted, and noted that under the COLA policy the reserves were insufficient to fully fund the COLA so one could not be recommended. Pursuant to the COLA policy, after presentation to the Board, this information was sent to the Sonoma County Board of Supervisors and the Sonoma County Association of Retired Employees.

M. CONTRIBUTIONS

Contribution Rates

Contribution rates for the employer and its covered employees are established and may be amended by the SCERA Board of Retirement (and then shall be adopted by the governing bodies of participating employers). The contribution rates are determined based on the benefit structure established by the employer. Plan A members are required to contribute between approximately 7% and 15% of their annual covered salary, and the member's particular rate is based upon age at entry into the System. Plan B members are required to contribute a flat rate as calculated by the actuary.

SCERA's funding policy for employer contributions are actuarially determined rates that, expressed as a percentage of annual covered payroll, are required to accumulate sufficient assets to pay benefits when due.

Level percentage of payroll employer contribution rates are determined using the entry age normal actuarial cost method. SCERA also used the level entry age normal cost method with an Unfunded Actuarial Accrued Liability payment to amortize the unfunded liability.

In order to allow the County to more accurately budget for pension contributions (in accordance with the Board's funding policy), the contribution rates determined in each valuation will be assumed to take effect at the beginning of the fiscal year starting at least twelve months after the end of the Valuation Year, except when significant benefit or actuarial assumption changes occur.

SCHEDULE OF EMPLOYER CONTRIBUTIONS
For the three years ending December 31, 2020
(Dollars in Thousands)

Year Ended	Annual Required Contribution (ARC)	Contributions as a % of ARC
12/31/18	$67,425	100%
12/31/19	$65,155	100%
12/31/20	$77,506	100%

Funding Status and Method

The actuarial funding ratio as of December 31, 2020, was 91.3%. SCERA's actuary uses five-year smoothing of market gains and losses to derive the actuarial value of assets. The actuarial value of assets as of December 31, 2020, was $3.0 billion.

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, inflation and investment returns. Amounts determined regarding the funded status of the System and the annual required contributions of the employer are subject to continual revisions as actual results are compared with past expectations and new estimates are made about the future.

SCERA's employer rates provide for both normal cost and a contribution to amortize any unfunded or over-funded actuarial accrued liabilities. The funding policy adopted by the Board is to amortize the outstanding balance of the December 31, 2007 UAAL as well as any new UAAL established on each subsequent actuarial valuation after the December 31, 2007 valuation over separate 20-year declining periods.

N. NET PENSION LIABILITY

GASB Statement No. 67 requires public pension plans to provide a net pension liability. The net pension liability is measured as the total pension liability less the amount of the pension plan's fiduciary net position. The net pension liability is an accounting measurement for financial statement report purposes. The components of net pension liability of participating employers as of December 31, 2020:

(Dollars in Thousands)	2020
Total Pension Liability	$3,264,403
Less: Fiduciary Net Position	3,073,675
Net Pension Liability	$ 190,728
Fiduciary Net Position as a Percentage of Total Pension Liability	94.16%

The net pension liability of participating employers was measured as of December 31, 2020 and determined based upon the total pension liability from actuarial valuations as of December 31, 2020.

Actuarial Assumptions

In preparing an actuarial valuation, the actuary employs generally accepted actuarial methods and assumptions to evaluate the System's assets, liabilities, and future contribution requirements. The actuary utilizes member data and financial information provided by the System along with economic and demographic assumptions made about the future to estimate the System's financial status as of a specified point in time. Examples of estimates include assumptions about future employment, mortality, future investment returns, future salary increases, expected retirements and other relevant factors. Actuarially determined amounts are subject to continual review or modification. The Board reviews the economic and demographic assumptions of the System every three years.

The actuarial assumptions used to determine the total pension liability as of December 31, 2020 were based on the results of the most recent Actuarial Experience Study which covered the period from January 1, 2015 through December 31, 2017. These same assumptions were used in the December 31, 2020 actuarial valuation, which is used to determine contribution rates for funding purposes. Key methods and assumptions used in the latest actuarial valuation and the total pension liability are presented below.

Key Assumptions Used in Annual Actuarial Valuation and Total Pension Liability

Valuation Date	December 31, 2020
Actuarial Experience Study	3 Year Period Ending December 31, 2017
Actuarial Cost Method	Entry Age Normal Cost Method
Discount Rate	7.00%
Inflation Rate	2.75%
Across the Board Salary Increase	0.50%
Projected Salary Increases	General 3.75% - 8.75% and Safety 4.00% - 10.75%, varying by service, including inflation
Cost of Living Adjustments	0.00% of retirement income
Mortality Rates	Headcount-Weighted RP-2014 Healthy Annuitant Table times 94% for males and 102% for females, projected generationally with the 2-dimensional mortality improvement scale MP2017. Disabled Retiree table projected at 91% for males and 93% for females.
Other Assumptions	Same as those used in the December 31, 2019 funding actuarial valuation.

N. NET PENSION LIABILITY, *continued*

Sensitivity Analysis

In accordance with GASB Statement No. 67, changes to the total pension liability and net pension liability must be reported as of December 31, 2020. The net pension liability changes when there are changes in the discount rate. The following presents the net pension liability, calculated using the discount rate of 7.00 percent, as well as what the net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower (6.00) or 1 percentage point higher (8.00) than the current 7.00 percent.

SCHEDULE OF SENSITIVITY ANALYSIS

As of December 31, 2020
(Dollars in Thousands)

	1% Decrease (6.00%)	Discount Rate (7.00%)	1% Increase (8.00%)
Net Pension Liability	$567,191	$190,728	$(122,211)

Long-Term Expected Real Rate of Return

The long-term expected real rate-of-return on assets was determined using a building block method in which the expected future real rates-of-return (expected returns, net of inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate-of-return by weighting the expected future real rates of return by the target asset allocation percentage, adding expected inflation and subtracting expected investment expenses and a risk margin. The target allocation and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before investment expenses, used in the derivation of the long-term expected investment rate-of-return assumption for each major asset class from the 2017 experience study are summarized in the table below:

Asset Class	Target	Expected Real (without inflation) Rate of Return	Expected Nominal* (with inflation) Rate of Return
Large Cap Equity	17.97%	5.34%	8.09%
Small Cap Equity	5.45%	6.08%	8.83%
Developed International Equity	16.71%	6.80%	9.55%
Emerging Market Equity	5.57%	8.75%	11.50%
Core Fixed Income	14.75%	1.12%	3.87%
Global Equity	15.55%	6.44%	9.19%
Real Estate	10.0%	4.58%	7.33%
Farmland	5.0%	6.81%	9.56%
Bank Loans	3.0%	3.55%	6.30%
Unconstrained Bonds	3.0%	3.22%	5.97%
Infrastructure	3.0%	6.70%	9.45%
Total	100%		

*Nominal rate-of-return does not include the effect of compounding.

N. NET PENSION LIABILITY, *continued*

Money-Weighted Rate of Return

For the year ended December 31, 2020, the annual money-weighted rate-of-return on pension plan investments, net of pension plan investment expense, was 9.05%. The money-weighted rate-of-return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Discount Rate

The investment rate-of-return assumption used for actuarial funding was 7.00% for the year ended December 31, 2020.

GASB Statement No. 67 requires determination that the System's fiduciary net position is projected to be sufficient to make projected benefit payments. The discount rate used to measure the total pension liability was 7.00%. The projection of cash flows used to determine the discount rate assumed that System member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on those assumptions, the System's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate-of-return on System investments was applied to all periods of projected benefit payments to determine the total pension liability.

O. RESERVES

The reserves represent components of SCERA's assets. Reserves are established from member and employer contributions and the accumulation of investment income after satisfying investment and administrative expenses. The reserves do not represent the present value of assets needed (as determined by actuarial valuation) to satisfy retirements and other benefits as they become due. SCERA has the following major classes of reserves:

- **Member Reserves** represent member contributions and earnings allocations less amounts transferred to Annuitant Reserves for service and disability retirements or refunds.

- **Employer Reserves** represent employer contributions and earnings allocations less amounts transferred to Annuitant Reserves for service and disability retirements or paid out as death benefits.

- **Annuitant Reserves** represent transfers of accumulated contributions of members who have retired, employer contributions needed to fund retired member benefits as determined by the actuary and earnings allocations less amounts paid out as annuitant (retiree) benefits.

- **Cost of Living Reserves** represent amounts transferred from undistributed earnings reserves to fund ad hoc cost of living increases.
  - **COLA Reserves - Current** represent amounts set aside to fund the cost of COLAs that have already been granted to retirees as determined by the actuary, recommended by the SCERA Board of Retirement and authorized by the Sonoma County Board of Supervisors.

- **Unreserved (Undistributed Investment Earnings)** is credited with all investment earnings. Reduction of this account is through payment of administrative expenses and consultant and management expenses. The remaining undistributed earnings can only be used for payment of pension benefits as described in Section 31592.2 of the Government Code.

- **Market Stabilization Reserve** is the difference between the current fair value of assets and the smoothed actuarial value of assets (AVA) that is used in developing the Unfunded Actuarial Accrued Liability (UAAL). The value in this reserve will be recognized in developing the AVA over the next 4 years.

- **Interest Fluctuation Reserve** is a reserve set by the Board at 3% of the fair value of assets to provide funds to offset future deficiencies in interest earnings, losses on investment or other contingencies.

- **Negative Contingency Reserve** is used to track interest crediting shortfalls as a result of negative investment returns.

O. RESERVES, *continued*

A breakdown of the reserve accounts, which comprise total fiduciary net position restricted for pension benefits at December 31, 2020, 2019, and 2018 are as follows:

SCHEDULE OF RESERVES

(Dollars in Thousands)	**2020**	**2019**	**2018**
Member Reserve	$ 603,510	$ 593,656	$ 600,487
Employer Reserve	944,942	835,234	755,645
Annuitant Reserve	1,986,462	1,930,871	1,847,309
Cost of Living Reserve-Current	29,808	32,193	35,157
Interest Fluctuation Reserve	0	0	0
Market Stabilization Reserve	91,988	105,598	(89,536)
Negative Contingency Reserve	(583,035)	(580,662)	(571,253)
Total Reserved For Pension Benefits	3,073,675	2,916,890	2,577,809
Total Unreserved	0	0	0
Total Fiduciary Net Position Restricted for Pension Benefits	$3,073,675	$2,916,890	$2,577,809

P. RISK MANAGEMENT

SCERA is covered by the County of Sonoma's self-insurance program for general liability and workers' compensation coverage. For general liability coverage, the County maintains a self-insured retention of $1,000,000 per occurrence for claims occurring from January 1, 2020 through December 31, 2020, with excess coverage provided through California State Association of Counties, Excess Insurance Authority (CSAC-EIA), Excess Liability Program. For workers' compensation coverage, the County maintains a self-insured retention of $300,000 per occurrence with excess coverage to statutory limits provided through participation in the CSAC-EIA Excess Workers' Compensation program. For each of the above self-insurance coverages, the County maintains a separate Internal Service Fund. Funding for each fund is actuarially evaluated annually.

SCERA participates in a joint-purchase property insurance program through CSAC-EIA. Coverage is "All Risk" for physical loss and damage including flood. Limits of property coverage are $800,000,000 shared per occurrence for all risk and $600,000,000 for flood.

SCERA employees are covered under the County of Sonoma public employee faithful performance / employee dishonesty coverage through a joint-purchase program provided by American International Group (AIG), and administered through the CSAC-EIA. Coverages include forgery and alteration, theft, disappearance and destruction, robbery and safe burglary, and computer fraud, with limits to $15,000,000 and a $25,000 deductible.

SCERA is covered for cyber liability under a CSAC-EIA Cyber Liability Program through Lloyd's of London-Beazley Syndicate in the amount of $5,000,000 aggregate limit for each program member with a $50,000 deductible. Coverage includes information security and privacy liability, privacy notification, regulatory defense, website media content liability, and data protection.

The Board purchases separate Fiduciary Liability coverage for actual or alleged breach of fiduciary duties through Hudson Insurance Company. Limits of coverage are $10,000,000 annual aggregate with a $50,000 deductible, per insured.

Q. COMMITMENTS AND CONTINGENCIES

As of December 31, 2020, SCERA has invested in three different Davidson Kempner private credit strategies that are a part of SCERA's Opportunistic Allocation. All three funds have ended their investment periods but two of the funds remain open and could technically call additional funds for "follow-on" investments. Given that the two open funds are well past their formal investment period they are very unlikely to call from the remaining $67.6 million commitment.

R. DATE OF MANAGEMENT'S REVIEW

The date to which events occurring after December 31, 2020 have been evaluated for possible adjustments to the financial statements or disclosures is May 27, 2021, which is the date that the financial statements were available to be issued.

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Required Supplementary Information

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

For the years ended December 31, 2020, 2019, 2018 and 2017

(Dollars in Thousands)	2020	2019	2018	2017
Total Pension Liability				
Service cost	$ 76,153	$ 77,185	$ 73,316	$ 71,798
Interest	218,710	214,052	210,532	202,726
Change of benefit terms	0	0	0	0
Difference between expected and actual experience	16,309	(37,245)	12,137	883
Change of assumptions	0	0	31,798	0
Benefit payments, including refunds of employee contributions	(190,092)	(182,746)	(172,562)	(165,949)
Net Change in Total Pension Liability	$ 121,080	$ 71,246	$ 155,221	$ 109,458
Total Pension Liability – Beginning	3,143,323	3,072,077	2,916,856	2,807,398
Total Pension Liability – Ending (a)	$3,264,403	$3,143,323	$3,072,077	$2,916,856
Plan Fiduciary Net Position				
Contributions – employer	$ 77,506	$ 65,155	$ 67,425	$ 63,822
Contributions – employee	47,364	44,659	45,567	44,161
Net investment income/(loss)	225,040	415,559	(107,078)	394,909
Benefit payments, including refunds of employee contributions	(190,092)	(182,746)	(172,562)	(165,948)
Administrative expense	(3,033)	(3,546)	(3,583)	(3,732)
Other	0	0	0	0
Net Change in Plan Fiduciary Net Position	$ 156,785	$ 339,081	$(170,231)	$ 333,212
Plan Fiduciary Net Position – Beginning	$2,916,890	$2,577,809	$2,748,040	$2,414,828
Plan Fiduciary Net Position – Ending (b)	3,073,675	2,916,890	2,577,809	2,748,040
Net Pension Liability – Ending (a) – (b)	$ 190,728	$ 226,433	$ 494,268	$ 168,816
Plan fiduciary net position as a percentage of the total pension liability	94.16%	92.80%	83.91%	94.21%
Covered payroll	$ 373,107	$ 350,995	$ 355,558	$ 345,631
Net Pension Liability as a percentage of covered payroll	51.12%	64.51%	139.01%	48.84%

The schedule of changes in net pension liability displays the components of the total pension liability and plan fiduciary net position for the System, calculated in conformity with the requirements of GASB Statements No. 67 and No. 82. Covered payroll represents the collective total of the System eligible wages upon which contributions are based of all System Employers.

Note: Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

Required Supplementary Information, *continued*

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS, *continued*

For the years ended December 31, 2016, 2015, 2014 and 2013

(Dollars in Thousands)	2016	2015	2014	2013
Total Pension Liability				
Service cost	$ 69,834	$ 67,839	$ 70,200	$ 66,133
Interest	194,741	187,756	184,919	176,193
Change of benefit terms	0	0	0	0
Difference between expected and actual experience	5,296	(15,191)	(69,415)	8,772
Change of assumptions	0	93,686	0	0
Benefit payments, including refunds of employee contributions	(157,452)	(149,364)	(141,675)	(135,961)
Net Change in Total Pension Liability	$ 112,419	$ 184,726	$ 44,029	$ 115,137
Total Pension Liability – Beginning	2,694,979	2,510,253	2,466,224	2,351,087
Total Pension Liability – Ending (a)	$2,807,398	$2,694,979	$2,510,253	$2,466,224
Plan Fiduciary Net Position				
Contributions – employer	$ 63,639	$ 68,240	$ 61,179	$ 51,852
Contributions – employee	40,783	38,714	37,126	35,491
Net investment income/(loss)	189,949	34,589	117,663	370,313
Benefit payments, including refunds of employee contributions	(157,452)	(149,364)	(141,676)	(135,960)
Administrative expense	(4,219)	(3,526)	(3,590)	(3,850)
Other	0	0	0	0
Net Change in Plan Fiduciary Net Position	$ 132,700	$ (11,347)	$ 70,702	$ 317,846
Plan Fiduciary Net Position – Beginning	$2,282,128	$2,293,475	$2,222,773	$1,904,927
Plan Fiduciary Net Position – Ending (b)	2,414,828	2,282,128	2,293,475	2,222,773
Net Pension Liability – Ending (a) – (b)	$ 392,570	$ 412,851	$ 216,778	$ 243,451
Plan fiduciary net position as a percentage of the total pension liability	86.02%	84.68%	91.36%	90.13%
Covered payroll	$ 329,078	$ 311,404	$ 299,875	$ 299,142
Net Pension Liability as a percentage of covered payroll	119.29%	132.58%	72.29%	81.38%

The schedule of changes in net pension liability displays the components of the total pension liability and plan fiduciary net position for the System, calculated in conformity with the requirements of GASB Statements No. 67 and No. 82. Covered payroll represents the collective total of the System eligible wages upon which contributions are based of all System Employers.

Note: Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

SCHEDULE OF INVESTMENT RETURNS

For fiscal years 2014 through 2020

Year Ended December 31	Annual Money-Weighted Rate of Return, Net of Investment Expense
2014	5.54%
2015	1.50%
2016	8.55%
2017	16.11%
2018	-3.39%
2019	16.35%
2020	9.05%

Note: Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

SCHEDULE OF EMPLOYER CONTRIBUTIONS

(Dollars in Thousands)

Year Ended December 31	Actuarially Determined Contributions	Contributions in Relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a % of Covered Payroll
2011	$35,711	$35,711	$ 0	$291,650*	12.24%
2012	45,079	45,079	0	294,552*	15.30%
2013	51,852	51,852	0	299,142*	17.33%
2014	61,179	61,179	0	299,875*	20.40%
2015	64,687	68,240	(3,553)	311,404	21.91%
2016	63,640	63,640	0	329,078	19.34%
2017	63,822	63,822	0	345,631	18.47%
2018	67,425	67,425	0	355,558	18.96%
2019	65,155	65,155	0	350,995	18.56%
2020	$70,784	$77,506	$ (6,722)	$373,107	20.77%

* Covered Payroll amounts changed due to payroll system corrections.

NOTES TO REQUIRED SUPPLEMENTARY SCHEDULES

Note A – Schedule of Changes in Net Pension Liability and Related Ratios

The total pension liability contained in this schedule was obtained from the System's actuary, Segal Consulting.

Note B – Schedule of Investment Returns

The money-weighted return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Note C – Actuarial Assumptions Used in Determining the Actuarially Determined Contributions

The employer statutory contribution rates for the first six months of 2020 are calculated based on the December 31, 2017 actuarial valuation; the rates for the last six months of 2020 are calculated based on the December 31, 2018 valuation. Details of the actuarial methods and assumptions used for these valuations are as follows:

Valuation Date	December 31, 2018	December 31, 2017
Actuarial cost method	Entry Age Normal Cost Method	Entry Age Normal Cost Method
Amortization method	Level percent, open	Level percent, open
Remaining amortization period	20 years layered, declining	20 years layered, declining
Asset valuation	5-year, smoothed, market	5-year, smoothed, market
Investment rate of return	7.00%	7.25%
Includes inflation at	2.75%	3.00%
Across the Board salary increase	0.50%	0.50%
Projected salary increases	2.75%, plus service-based rates	3.00%, plus service-based rates
Cost of living adjustments	None	None
Mortality rates	Various rates based on RP-2014 Healthy Annuitant Table projected 20 years with 2-dimensional scale (MP20172D)	Various rates based on RP-2014 Healthy Annuitant Table projected 20 years with 2-dimensional scale (MP20142D)

Change of Assumptions

Triennially the System requests that the actuary perform an analysis of all economic and non-economic assumptions in the form of an Experience Study. The most recent triennial analysis was performed as of December 31, 2017 for the period of January 1, 2015 through December 31, 2017. Based on the results of this study, the Retirement Board adopted new economic assumptions effective with the December 31, 2018 valuation. These changes included adjusting the investment return from 7.25% to 7.00% and adjusting inflation from 3.00% to 2.75%. These new assumptions will be used to determine the Actuarially Determined Contributions effective in fiscal year 2020-21.

ADMINISTRATIVE EXPENSES

For the year ended December 31 (with Comparative Totals)

(Dollars in Thousands)	2020	2019
Personnel Services		
Salaries, Wages and Benefits	$2,060	$2,003
Office Expenses		
Equipment & Software Maintenance	117	181
Postage	51	47
Printing and Stationary	30	26
Office Supplies	27	28
Telephone Charges	18	18
Total Office Expenses	243	300
Other Services and Charges		
Disability Medical Fees	134	161
Data Processing Charges	89	84
Insurance	71	63
Audit Fees	62	63
Transportation, Travel and Training	25	63
County Services	17	13
Memberships	16	16
Actuarial Retainer Fees	12	12
Professional Services	12	1
Disability Hearing Officer Fees	0	11
Total Other Services and Charges	438	487
Building Expenses		
Depreciation	42	45
All Other Building Expenses	28	28
Utilities	10	11
Total Building Expenses	80	84
Depreciation/Amortization – Capital Assets	50	303
Less: Retiree Medical Service Billing	(25)	(25)
Total Administrative Expenses	**$2,846**	**$3,152**

FEES AND OTHER INVESTMENT EXPENSES

For the year ended December 31 (with Comparative Totals)

(Dollars in Thousands)	2020	2019
Investment Manager Fees		
Real Assets Managers	$ 4,386	$ 4,254
Equity Managers	4,376	5,240
Fixed Income Managers	1,466	1,574
Asset Allocation	801	775
Opportunistic Managers	352	355
Total Investment Manager Fees	11,381	12,198
Other Investment Expense		
Investment Custodian	905	1,242
Investment Travel & Staff Salary	583	587
Cash Overlay Manager	359	385
Investment Consultant	345	320
Investment Legal Counsel	92	90
Bloomberg Service	27	26
Other Investment Services	15	39
Total Other Investment Expense	2,326	2,689
Total Fees and Other Investment Expenses[(A)]	**$13,707**	**$14,887**

(A) This schedule depicts direct expenses relating to the generation of investment income. Not reported on this schedule is the allowance for earnings on unearned revenue totaling $4.1 million and $4.0 million for the years ending December 31, 2020 and 2019, respectively (Please see Note K to the financial statements).

SCHEDULE OF PAYMENTS TO CONSULTANTS

For the year ended December 31 (with Comparative Totals)

(Dollars in Thousands)	2020	2019
Audit		
Brown Armstrong Accountancy Corporation	$ 62	$ 63
Total	62	63
Legal Counsel (Internal)		
Chief Retirement Counsel	0	55
Total	0	55
Legal Counsel (External)		
Mayer Brown, LLP	92	90
County of Sonoma, County Counsel	21	32
Nossaman, LLP	4	3
Ice Miller, LLP	1	7
Public Pension Consultants	0	2
Total	118	134
Actuarial		
Segal Consulting	160	295
Total	160	295
Total Payments to Consultants	**$340**	**$547**

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Investment Section

AON

April 5, 2021

Ms. Julie Wyne
Chief Executive Officer
Sonoma County Employees' Retirement Association
433 Aviation Boulevard
Santa Rosa, CA 95403

Dear Ms. Wyne:

As your investment consultant, Aon Investments USA Inc. (Aon Investments) is pleased to provide you with our report on the Sonoma County Employees' Retirement Association (SCERA) for the year ending December 31, 2020.

The SCERA Retirement Fund (Fund) is managed in accordance with a written Investment Policy Statement. The Investment Policy Statement is periodically reviewed and revised by the Retirement Board depending on actuarial assumptions, accrued liabilities, information provided through asset and liability studies and/or other relevant analyses.

Investment Policy

The Fund's Investment Policy started the year with a target allocation of 58% to Equities, 5% to Global Asset Allocation, 19% to Fixed Income, and 18% to Real Assets. However, the following actions and decisions altered the allocation throughout the year:

- Funded an additional infrastructure manager (decision was made in 2019), which increased the policy allocation to Real Assets from 18% to 20% with a commensurate policy allocation reduction from Core Fixed Income (from 16% to 14%)
- Removed the Global Asset Allocation asset class, which included an increase in the allocations to Global Equities from 15% to 18% and Core Fixed Income from 14% to 16%

Aon
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Investment advice and consulting services provided by Aon Investments USA, Inc.

Ms. Julie Wyne
Sonoma County Employees' Retirement Association
April 5, 2021
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The current and prior asset allocation policies are represented in the table below. The intent of these asset allocation changes, in totality, is to improve the expected return/risk profile of the Fund.

	Asset Allocation Policy Targets	
Asset Class:	**12/31/2019**	**12/31/2020**
U.S. Equities	*21.5%*	*21.5%*
Non-U.S. Equities	*21.5*	*21.5*
Global Equities	*15.0*	*18.0*
Equities	**58.0%**	**61.0%**
Global Asset Allocation	**5.0%**	**0.0%**
Core Fixed Income	*16.0%*	*16.0%*
Alternative Fixed Income	*3.0*	*3.0*
Fixed Income	**19.0%**	**19.0%**
Real Assets	**18.0%**	**20.0%**
Opportunistic Allocation	**n/a**	**n/a**
Overlay Strategies*	**3.0%**	**3.0%**
Total Fund	***100.0%***	***100.0%***

*Overlay Strategies has a targeted notional value of 3.0% of Fund assets. This is run as an overlay against US equity assets held elsewhere in the Fund and the cash set aside for "margin" is securitized with the cash overlay. Because the equity insurance risk premium strategy within the asset class is run as an overlay, it is excluded from the policy allocations that total 100%.

Investment Managers

The SCERA Fund's roster of investment management accounts underwent the following changes during 2020:

- Hired TCW TALF Opportunities Fund for the Opportunistic Allocation. The strategy was partially funded in 2020 but capital was fully returned due to a lack of investment opportunities that would meet the necessary return thresholds. The strategy closed as the TALF program ended.
- Terminated the Templeton International Equity Portfolio within the Non-U.S. Equities asset class.
- Hired the SSGA MSCI ACWI IMI Index Fund within the Global Equities asset class.
- Terminated the GMO Global Asset Allocation Fund within the Global Asset Allocation asset class. The Fund is being redeemed throughout 2021 through 12 equal monthly redemptions.

GMO Global Asset Allocation and Templeton International Equity began 2020 on "watch" status. As of year-end, Hexavest Global Equity was on "watch" status.

Mrs. Julie Wyne
Sonoma County Employees' Retirement Association
April 5, 2021
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Capital Markets

The major global capital markets ended calendar-year 2020 with strong results. The U.S. stock market, as measured by the Russell 3000 Index, returned +20.9% in 2020. The non-U.S. stock market, as measured by the MSCI All Country World ex-U.S. Index, returned +10.7% over the same period. Growth stocks outperformed value stocks during the year. Across the capitalization spectrum, large-cap stocks underperformed small-cap stocks. The fixed income market, as measured by the Bloomberg Barclays U.S. Aggregate Bond Index, returned +7.5% in 2020. Meanwhile, the real estate market returned +0.3%, as measured by the NCREIF ODCE Index.

Fund Performance

The SCERA Fund (net-of-fees[1]) finished 2020 with a +8.1% return for the year, underperforming the policy portfolio return of +12.7%. The Fund's annualized returns over the past three- and five-year periods were +6.6% and +8.9%, respectively. The Fund produced an annualized return of +8.5% over the ten-year period ending December 2020. For the 30-year period, the Fund returned +8.2%, annualized. We continue to believe the Fund is positioned to generate strong investment results over the long-term.

Sincerely,

John J. Lee
Partner

Chris Behrns
Senior Consultant

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[1] In reporting investment performance, Aon Investments calculates geometrically linked rates of return for SCERA monthly using statements provided by State Street Bank. Aon Investments reconciles these rates of return with those provided by the investment managers. We monitor any discrepancies (due to computational differences, securities pricing services, etc.) between Aon Investments and the investment managers but find that they generally do not tend to persist over time. All rates of return contained in this report are net of investment management fees. All rates of return presented in this report for time periods greater than one year are annualized.

SUMMARY OF INVESTMENT OBJECTIVES

The Board of Retirement has adopted an Investment Policy Statement, which reflects the Board's policy for the management of SCERA's investments. The Board is responsible for overseeing the investment activities for SCERA. This includes, but is not limited to, selecting acceptable asset classes; defining allowable ranges of holdings by asset class and by individual investment managers as a percent of assets; defining acceptable securities within each class; and establishing investment performance expectations. The Board will make revisions to this Investment Policy Statement as necessary.

The Board has adopted a long-term investment horizon such that the chances and duration of investment losses are carefully weighed against the long-term potential for appreciation of assets. The assets of SCERA will be invested in a manner that provides the safeguards and diversity to which a prudent investor would adhere. All transactions undertaken on behalf of SCERA will be in the sole interest of the participants and beneficiaries.

SCERA's primary investment objective is to minimize risk and maximize return, diversifying as prudent, for the purpose of providing benefits to members and beneficiaries.

An integral part of the overall Investment Policy Statement is the strategic asset allocation policy. This allocation mix is designed to provide an optimal mix of asset categories with return expectations that reflect expected risk. This emphasizes a maximum diversification of the portfolio that protects the fund from declines that a particular asset class may experience in a given period.

SUMMARY OF PROXY VOTING GUIDELINES

Voting of proxy ballots shall be in accordance with SCERA's Proxy Voting Policy. The investment managers shall review each proxy ballot and vote them in a manner that preserves and enhances shareholder value. Each investment manager shall keep accurate written records of all proxy votes and, at least annually, provide a detailed report to the Investment Committee, documenting all votes.

INVESTMENT RESULTS

Program Developments

The year 2020 was, of course, an unusual one due to the COVID-19 pandemic. As the result of social-distancing guidelines the Board and Investment Committee meetings transitioned to videoconference after February. Despite the challenges, the investments team continued to carry out its responsibilities, albeit with some modifications. Due diligence on the Plan's investment managers is performed on an ongoing basis by our investment consultant, Aon, and supplemented by SCERA's investment staff. SCERA normally meets with each of the Plan's managers on-site once every three years. After two on-site due diligence meetings in February, staff conducted six by way of videoconference later in the year. These virtual due diligence meetings may be supplemented with follow-up on-site meetings, where warranted, after business travel has returned.

Aon performed the triennial Asset-Liability (AL) study for the Plan in 2020. In the study, an actuarial team models both the assets and the liabilities over a long future horizon with a range of market outcomes. This produces a distribution of different funding outcomes for both the current asset allocation mix as well as alternative mixes. The conclusion was that the Board and the Plan's consultant continue to be comfortable with the Plan's asset allocation. As a part of this project, liquidity requirements were also studied over the modeling horizon. The Plan continues to have more liquidity than necessary. It was suggested that the Board could consider adding more to its illiquid investments if it believes it will be adequately compensated. This compensation is often referred to as an "illiquidity premium". SCERA's Real Assets allocation, which for our Plan includes real estate, farmland and infrastructure, is an example of these less liquid strategies. SCERA currently has a policy weight of 20% to Real Assets. In 2021 we will be considering additional allocations to existing illiquid assets as well as possible initial investments in new illiquid strategies.

***Program Developments**, continued*

In Infrastructure, the Board expanded the Plan's policy exposure from 3% to 5% in 2019 by approving a 2% allocation to an Axium North America infrastructure fund. The bulk of this commitment was called in the first half of 2020. The Axium fund invests in Canada and the US and is complementary to the Plan's other infrastructure manager, IFM, which invests in large infrastructure assets such as toll roads, airports and pipelines. The Axium fund, on the other hand, invests in smaller assets such as solar and wind farms and long-term care facilities. In addition, the Axium investments are typically low risk as the revenue from the asset is contracted through the life of the asset even before the asset is developed.

SCERA continued to invest its "Opportunistic" allocation in 2020, which has a 0% to 6% policy weight. The allocation's main purpose has been to capitalize on outsized opportunities resulting from significant market dislocations. We believe that accessible and meaningful dislocations are not common and are typically not long-lived. Consequently, there have been and, in the future, will be periods when the allocation goes unused. Since 2015, we have employed this allocation by investing in a series of Special Opportunity Funds (SOFs) managed by Davidson Kempner (DK). The manager adds value by acquiring distressed credit portfolios at bargain prices, then reorganizing, and ultimately divesting of assets. DK SOF III, III-A and IV are "rollover funds", are less expensive than most funds of this type and management fees are charged only on invested capital.

At the beginning of 2020 SCERA had capital invested in three Davidson Kempner funds - SOF III, SOF III-A and SOF IV. All three funds have ended their investment periods, are not expected to call additional capital, and are at various stages of returning capital to investors. As of December 31, 2020 the appraised value of the investment in the DK funds was $22.9 million for SOF III and $30.7 million for SOF IV. The Plan's small remaining investment in SOF III-A was returned during the year and by year-end that Fund had closed.

SCERA evaluated two "Opportunistic" investments in 2020 that were approved by the Board but ultimately did not come to fruition. Davidson Kempner announced their intention to offer the next in their series of Special Opportunity Funds, DK SOF V. The Board approved the allocation but, after further consideration, the manager decided not to launch the Fund as they felt the marketplace was not offering appropriate investment opportunities. Similarly, the Board approved an investment with TCW that was intended to invest in TALF fixed income assets. TALF stands for Term Asset-Backed Securities Loan Facility and is a federal program designed to support the credit needs of consumers and small businesses. These assets were expected to be attractive because of the government's credit support. While the TCW fund did launch it never invested any capital as the manager felt the market pricing of the few TALF securities available was simply not attractive. No management fees were incurred and, in the end, no funds were invested with either of these Opportunistic strategies.

The Board received educational presentations in 2020 on "risk parity", the outlook for market returns in light of the pandemic, our investment consultant's approach to operational due diligence, the principles of 130/30 investing, the real estate appraisal process, market index construction and the risks of investing in China and other poor Rule of Law countries.

Risk parity is an approach to asset allocation that is more focused on targeted volatility than expected returns. In its simplest form it builds portfolios with an equal amount of risk taken in each of its asset classes. Leverage is generally employed to overweight less volatile asset classes at the expense of more volatile ones. SCERA is not pursuing risk parity for our Plan's portfolio.

SCERA participates in two 130/30 investment strategies, a separate account US equity strategy managed by Jacobs Levy and a commingled non-US equity strategy managed by Arrowstreet. In 130/30 strategies the manager is working to add value both with "long" investments, which add value when they outperform the benchmark, and with "short" investments, which add value when they underperform the benchmark. In such a strategy the manager borrows to invest 130% of the principal value of the account in long positions and also invests in short positions with 30% of the account's principal value. With short positions the manager borrows a stock which they sell and then buy back at a later date for the purpose of returning the stock to the original seller. The result is that the short position benefits when the stock underperforms the broader market because the stock costs less than manager sold it for. Managers of these strategies are typically quantitative managers using computer models to manage the portfolio and with tightly controlled risk procedures. Both Jacobs Levy and Arrowstreet are quantitative managers.

***Program Developments**, continued*

The Board also heard from a China expert on the risk of investing in the Chinese market. SCERA's staff has been increasingly concerned over the last couple of years regarding the growing weight to China in the most common non-US and global equity indices. Never before have these benchmarks had such a large exposure to a country with a poor rule of law. SCERA staff identified and presented on the Rule of Law Index which is published by the World Justice Project, a spinoff from the American Bar Association. Discussions on this topic continued into early 2021 and, in an effort to manage this risk, the Board ultimately adopted a new "Rule of Law" investment guideline.

SCERA began 2020 with two managers on "watch", Templeton and GMO, and added Hexavest to the "watch" list in May. Templeton manages a non-US equity portfolio for SCERA while Hexavest oversees a global equity portfolio, and GMO is an asset allocation manager measured against a 65% global equity/35% domestic fixed income benchmark. Managers are placed on "watch" when there are concerns that warrant a heightened level of oversight and manager reporting but do not yet justify termination. Templeton was placed on "watch" due to concerns regarding an extended period of underperformance and changes in the investment team leadership, as well as adjustments to the portfolio construction process. GMO was put on "watch" due to a long period of underperformance, the long cycle over which the firm's "mean reversion" approach seems to be playing out and concerns regarding client and asset retention. The Hexavest "watch" status was the result of extended underperformance concerns, changes in the investment team and losses in clients and client assets.

Ultimately the Retirement Board elected to discontinue the Templeton account. Given that the Plan's consultant could not identify an approved active manager with a similar style for which the Board had a high conviction, the assets were transitioned to the existing non-US equity index strategy managed by State Street Global Advisors (SSGA). That transition occurred in December 2020. The Board also elected to discontinue the GMO relationship and will not be replacing the manager with another active asset allocator. GMO's account is being defunded with equal monthly drawdowns that started in January 2021 and will end when the funds are depleted, expected in late 2021. As of the end of 2020 Hexavest continued to manage a global equity portfolio for the Plan.

Last, late in 2020 we performed our triennial review of the Plan's guiding investment document, the Investment Policy Statement. Changes approved included the addition of retention standards for investment related documents, the defunding of the GMO global asset allocation account (described above) and other updates to reflect current operating procedures.

Results

For calendar year 2020, the Plan's investment portfolio returned 8.6% gross-of-fees. With annual investment management fees of approximately 0.5%, this equates to a return of 8.1% net-of-fees, a return above the current Actuarial Assumed Rate-of-Return (ROR) of 7.0%.

Four of the last five calendar years have produced returns greater than the assumed ROR, which more than offset the negative return from 2018, producing an above-par five-year gross-of-fees return of 9.4%. To monitor interim progress, we tend to look more toward "smoothed" five-year returns rather than focusing on the more volatile nature of annual returns. SCERA's performance over twenty-five years is 7.8% gross-of-fees, which on an after-fee basis is broadly in-line with our long-term expectations. Given the long-term nature of the Plan, this return is arguably even more relevant.

Calendar year 2020 was a year that truly earned the title "*unprecedented*". While the world has experienced public health crises before, the sheer scope and scale of the global COVID-19 pandemic, together with the measures taken by countries around the world, steep economic declines and subsequent snap backs, record setting accommodative monetary policy and fiscal policies and scientific achievements have all been extraordinary. Given the shock to the global economy with large segments temporarily shut down, there was a clear divergence between the equity markets and economic growth. In aggregate, equity markets had a surprisingly strong year, with the US broad market gaining around 21% for the year.

Results, *continued*

Sector returns exhibited an extraordinarily wide dispersion of results. Within the US equity market as represented by the S&P 500 Index, the Technology sector produced the strongest gain with a return of 44%, well ahead of Consumer Discretionary, the second strongest performer with a return of 33%. At the other end of the spectrum, the Energy sector declined 34% while Real Estate and Financials both declined 2%. Style effects were very marked with “Growth” stocks massively outperforming “Value” stocks and “Dynamic” stocks besting “Defensive” stocks. Even the magnitude of these disparities masks the incredibly narrow nature of the market. The small cap segment of the market was driven by the very strong absolute performance of biotech stocks that benefited from vaccine frenzy. The large cap segment of the market was driven by a handful of prominent technology stocks collectively known as the “FAANG” (Facebook, Amazon, Apple, Netflix and Google) stocks, together with Tesla, which became the world’s most valuable car company. If these highflying stocks are removed the 2020 US equity returns were relatively lackluster (Apple alone accounted for a quarter of the S&P 500’s 2020 return).

The non-US equity markets also posted strong absolute returns for the year with the MSCI ACWI Ex US IMI benchmark index delivering 11.1%. Geographically, Europe was the weakest performing region, returning a more modest 6.5%. The Nordic countries delivered very strong returns, but these were diluted by the United Kingdom’s performance which declined 9% in US Dollar terms. The Pacific region returned nearly 12% and Emerging Market equities produced a strong return of just over 18% which led their developed market peers. Sector performance mirrored that of the US, ranging from 44.4% for Information Technology down to -22.9% for Energy.

The Plan’s US stock managers, in aggregate, returned 10.9%, a strong absolute return but significantly underperforming the Russell 3000 benchmark return of 20.9%. The key factors behind the relative underperformance were the Plan’s tilt toward small cap stocks coupled with underperformance from the active managers. Jacobs Levy employs a quantitative investment strategy that utilizes a broad holding of stocks that is not favored by narrow markets, such as those experienced in 2020. Systematic’s style was also out of favor as they focus on the companies with strong balance sheets and free-cash-flow which excludes most biotech stocks.

The Plan’s Non-US Equity managers delivered an aggregate return of 9.6%, underperforming the asset class benchmark of 11.1% for the year. This aggregate underperformance was due to Templeton, whose portfolio was liquidated in December, having trailed the benchmark through the first eleven months of the year.

The Plan’s Global Equity portfolio managers invest in both US and non-US domiciled stocks and the asset class benchmark delivered a return of 16.6% for the year. SCERA’s Global Equity managers in aggregate produced a return of 5.5%, a return significantly trailing the benchmark. Hexavest and Dodge & Cox, the Plan’s global equity managers, both underperformed the benchmark. Hexavest invests with a top-down and contrarian approach and their defensive positioning amidst buoyant equity markets proved a drag on relative performance. Both managers favored Non-US equity markets at the expense of the domestic market, which proved detrimental during a year when the US market delivered nearly 10% above the non-US markets.

The Plan’s fixed income portfolio managers produced an aggregate return of 9.0% for 2020 compared to the benchmark’s return of 7.5%. The majority of assets within the fixed income portfolio are dedicated to “Core Plus” mandates where the Plan has three portfolio managers. Performance amongst these managers was mixed, with two of the managers outperforming the benchmark while the third manager underperformed. The underperforming manager has a focus on mortgage bonds which underperformed the broader asset class benchmark. Supplementing the core plus fixed income assets is an allocation to alternative fixed income, comprised of a bank loan mandate and a commitment to the TCW TALF (Term Asset-Backed Securities Loan Facility) 2.0 Opportunities Fund. The bank loan manager modestly underperformed its own benchmark, but bank loans in aggregate underperformed the asset class benchmark, making the mandate dilutive to total fixed income performance. The TALF fund drew down only a *de minimis* amount, which was later returned with interest, and made no investments. The fund partnership was dissolved by year-end and the small amount of capital called had no material impact on total fixed income performance.

Results, *continued*

The Plan's real assets portfolio is composed of real estate, farmland and infrastructure. Combined, the real assets portfolio delivered a modest 2.7% return for the year. SCERA invests in two core real estate investment funds, the JPMorgan Strategic Property Fund (SPF) and the UBS Trumbull Property Fund (TPF). These are both large privately managed real estate equity funds that invest in commercial properties across the US. SPF modestly outperformed the core real estate benchmark in 2020 while TPF recorded a negative annual return due to write-downs in its retail holdings that resulted in benchmark underperformance.

Farmland was included in the real assets portfolio to provide an uncorrelated source of stable returns with a strong income component. The Plan's Farmland exposure is invested in the UBS AgriVest Farmland Fund. In 2020, the Farmland Fund delivered a healthy 4.9% total return, of which 3.1% derived from income. The fund matched the income of the Core Farmland Index benchmark but outperformed due to stronger appreciation, most notably in the Pacific region.

The Plan obtains exposure to Infrastructure through its investment in the IFM Global Infrastructure Fund and the Axium North America II Fund. Absolute and relative performance in 2020 was weak with IFM and Axium posting returns of 2.9% and -6.0%, respectively, compared to a benchmark return of 6.4%. The benchmark is a "Cash Plus" type of benchmark which does not reflect the COVID-19 shut downs which were particularly hard felt in transportation assets.

GMO is SCERA's Global Asset Allocation manager, tasked with the job of allocating opportunistically across both stocks and bonds globally. The manager's benchmark is a blend of 65% global equities and 35% domestic bonds. GMO underperformed its benchmark in 2020 by approximately 6.3% mainly due to their lighter weighting in equities, and within equities a tilt towards non-US stocks which underperformed their US counterpart. Their fixed income allocation to "alternative" strategies also contributed to benchmark relative underperformance.

The Plan's Opportunistic investments (incepted in mid-2016) have completed their investment periods and are now in the "harvesting" stage of their investment cycle, where fund investments are realized and capital is being returned to investors. Market prices are not readily available for this type of investing, but the investments are periodically appraised to provide valuation estimates. Current indications are that they have achieved an annualized Internal Rate of Return (which adjusts for the timing of cash flows) in aggregate in the region of 8%. This is in excess of the Plan's current actuarial assumed ROR.

The long-term perspective of the Plan allows it to focus on trends and not the short-term gyrations of the financial markets. For this reason, we look to five-year returns over the interim as described above. Calendar year 2020 was a strong year that helped lift our current five-year return to something above our long-term expectations. The longer horizon 10- and 25-year returns, which are arguably more relevant, are also healthy and in-line with expectations. We remain confident that SCERA's investment program continues to be designed to meet the funding requirements of the Plan without taking undue risk.

INVESTMENT RESULTS BASED ON FAIR VALUE

For the year ended December 31*

Account	Current Year	3 Year	5 Year
Fixed Income			
Reams Asset Management – Core Plus	17.92%	9.28%	7.30%
DoubleLine – Core Plus	4.69%	4.47%	4.23%
PIMCO – Core Plus	8.20%	5.69%	5.05%
Guggenheim Bank Loan Fund	2.49%	4.03%	5.19%
Benchmark: BB U.S. Aggregate Bond Index	**7.51%**	**5.34%**	**4.44%**
Total Fixed Income	**9.00%**	**5.63%**	**5.23%**
Real Assets			
UBS Trumbull Property Fund	-4.04%	0.17%	2.75%
JP Morgan Strategic Property Fund	1.43%	4.62%	5.85%
Benchmark: NCREIF ODCE	**1.19%**	**4.92%**	**6.21%**
UBS AgriVest	4.86%	4.74%	5.29%
Benchmark: UBS Core Farmland Index (custom)	**4.44%**	**5.10%**	**5.30%**
IFM Global Infrastructure Fund	2.87%	10.91%	N/A
AXINFRA NA LP	-5.95%	N/A	N/A
Benchmark: CPI + 5% Year	**6.42%**	**6.94%**	**N/A**
Total Real Assets	**2.71%**	**5.07%**	**5.92%**
Domestic Equity			
Jacobs Levy: Broad Mandate Equity	14.09%	13.30%	16.08%
Benchmark: Russell 3000	**20.89%**	**14.49%**	**15.43%**
SSgA: Russell 1000 Index Fund	20.98%	N/A	N/A
Benchmark: Russell 1000	**20.96%**	**14.82%**	**15.60%**
Systematic Financial Mgmt: Small Cap Value	5.24%	4.31%	11.83%
Benchmark: Russell 2000 Blended	**19.96%**	**10.25%**	**15.14%**
Total Domestic Equity	**10.90%**	**10.74%**	**14.36%**
Non-U.S. Equity			
Arrowstreet Capital	15.76%	8.15%	12.14%
SSgA: MSCI ACWI Ex US IMI Index Fund	11.35%	5.10%	9.27%
Benchmark: MSCI AC World Ex US IMI(net) II	**11.12%**	**4.83%**	**8.98%**
Total Non-U.S. Equity	**9.55%**	**4.28%**	**8.58%**
Global Equity			
SSGA ACWI IMI Index Fund-Funded 12/20	N/A	N/A	N/A
Benchmark: MSCI ACWI IMI (net)	**16.60%**	**10.05%**	**12.49%**
Hexavest	6.33%	5.42%	8.88%
Benchmark: MSCI Global Equity Blended I	**16.60%**	**10.05%**	**12.49%**
Dodge & Cox	4.76%	6.59%	11.88%
Benchmark: MSCI Global Equity Blended II	**16.60%**	**10.05%**	**12.20%**
Total Global Equity	**5.46%**	**4.59%**	**8.21%**
Global Asset Allocation			
Grantham, Mayo, Van Otterloo and Company	8.02%	5.94%	7.85%
Benchmark: Global Asset Allocation Blended	**14.31%**	**8.97%**	**10.07%**
Opportunistic			
Davidson Kempner Funds	-3.15%	7.53%	N/A
Benchmark: Custom	**11.75%**	**8.05%**	**N/A**
Total Fund	**8.60%**	**7.19%**	**9.40%**

* Using time weighted rate-of-return based on the market rate-of-return; returns and benchmarks are shown gross of fees.

SCHEDULE OF MANAGEMENT FEES

For the year ended December 31 (and Comparative Totals)
(Dollars in Thousands)

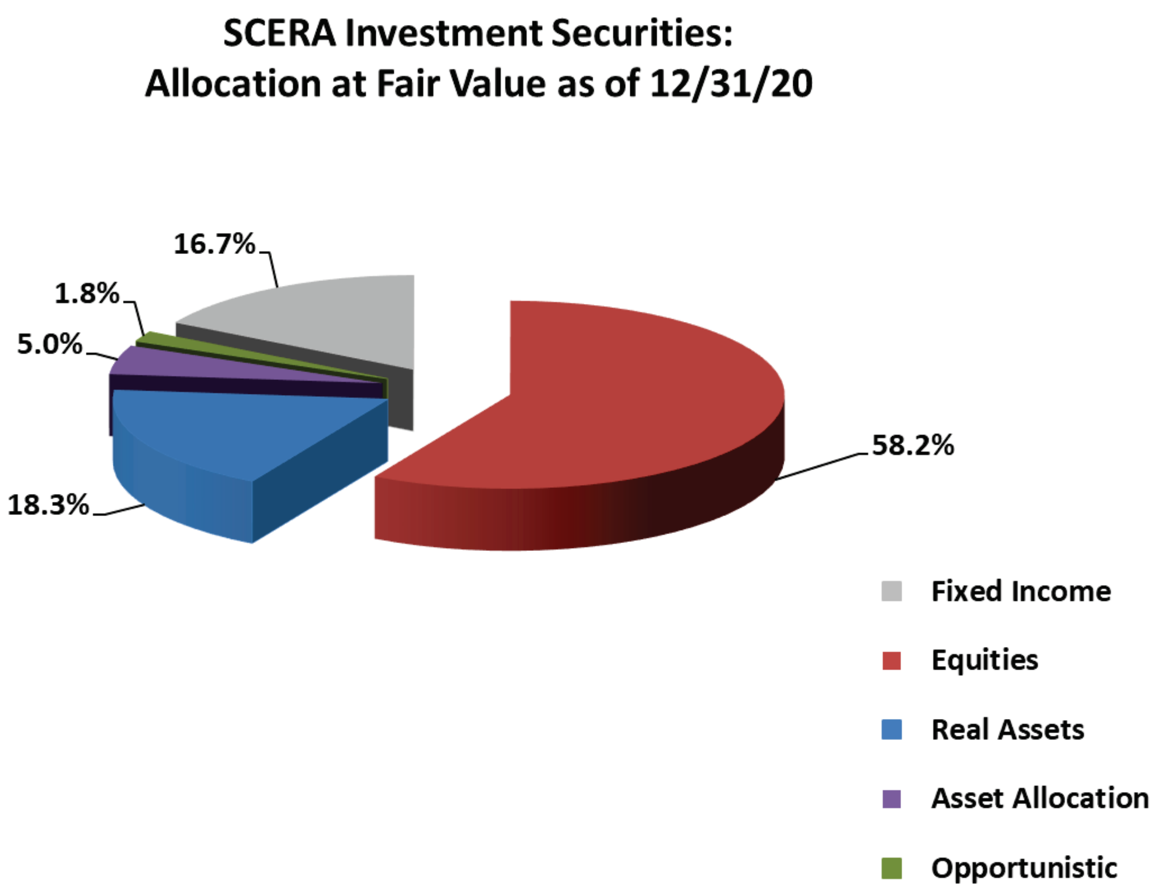
	2020	2019
Fixed Income		
PIMCO	$ 414	$ 373
Guggenheim	408	408
DoubleLine	382	386
Reams Asset Management	262	258
Neuberger Berman	0	149
Total Fixed Income	**1,466**	**1,574**
Real Assets		
UBS AgriVest	1,347	1,259
JP Morgan	1,216	1,250
IFM Global	737	764
UBS Realty	707	980
Axium	379	1
Total Real Assets	**4,386**	**4,254**
Domestic Equity		
Jacobs Levy	1,001	1,138
Systematic Financial Management	682	705
State Street Global Advisors	41	46
Total Domestic Equity	**1,724**	**1,889**
Non U.S. Equity		
Templeton Investment Counsel	638	737
Arrowstreet Capital	569	1,104
State Street Global Advisors	166	161
Total Non U.S. Equity	**1,373**	**2,002**
Global Equity		
Dodge & Cox	847	913
Hexavest	432	436
Total Global Equity	**1,279**	**1,349**
Asset Allocation		
Grantham, Mayo, Van Otterloo and Company	801	775
Total Asset Allocation	**801**	**775**
Opportunistic		
Davidson Kempner	352	355
Total Opportunistic	**352**	**355**
Total Investment Manager Fees	**11,381**	**12,198**
Other Investment Expenses		
Investment Custodian	905	1,242
Investment Travel and Staff Salary	583	587
Cash Overlay Manager	359	385
Investment Consultant	345	320
Investment Legal Counsel	92	90
Bloomberg Service	27	26
Other Investment Services	15	39
Total Other Investment Expenses	**2,326**	**2,689**
Total Fees/Other Investment Expenses	**$13,707**	**$14,887**

SCHEDULE OF BROKER COMMISSIONS

Brokerage Firm	Number of Shares Traded	Total Commissions	Commission Per Share
Citibank.	7,292,217	$ 51,335	0.0070
Liquidnet Inc.	1,822,935	26,929	0.0148
ITG, Inc.	8,711,632	23,967	0.0028
J.P. Morgan Securities PLC	2,077,587	16,193	0.0078
Goldman Sachs & Co LLC	3,210,908	15,174	0.0047
Investment Technology Group, Inc.	881,056	14,630	0.0166
Morgan Stanley Co Incorporated	1,457,829	13,296	0.0091
Citibank AG	1,069,024	13,227	0.0124
Investment Technology Group LTD	1,790,946	13,083	0.0073
Citigroup Global Markets Limited	789,233	11,890	0.0151
UBS AG	1,173,540	11,886	0.0101
Royal Bank of Canada Europe LTD	2,247,562	11,465	0.0051
Merrill Lynch International.	3,507,808	10,851	0.0031
Credit Suisse Securities (USA) LLC	2,689,318	9,526	0.0035
Sanford Bernstein LTD	530,132	9,203	0.0174
Pershing Securities Limited	2,368,050	8,136	0.0034
Macquarie Bank Limited	1,434,100	8,036	0.0056
BofA Securities, Inc.	890,543	7,414	0.0083
Instinet U.K. LTD	632,825	6,932	0.0110
J. P. Morgan Clearing Corp.	663,527	6,658	0.0100
National Bank Financial Inc.	193,269	6,514	0.0337
Citibank International PLC	280,510	5,997	0.0214
Cantor Fitzgerald & Co	285,675	5,948	0.0208
Scotia Capital Inc	188,332	5,861	0.0311
CL Securities Taiwan Company LTD	946,400	5,763	0.0061
Instinet	576,372	5,696	0.0099
CS First Boston (Hong Kong) Limited	1,105,900	5,357	0.0048
R.B.C. Dominion Securities Corporation	289,628	5,031	0.0174
Jefferies International LTD	256,048	4,862	0.0190
JPMorgan Securities (Asia Pacific) Ltd	5,630,700	4,766	0.0008
All Others	16,550,876	124,527	0.0075
TOTAL	**71,544,482**	**$470,153**	**0.0066**

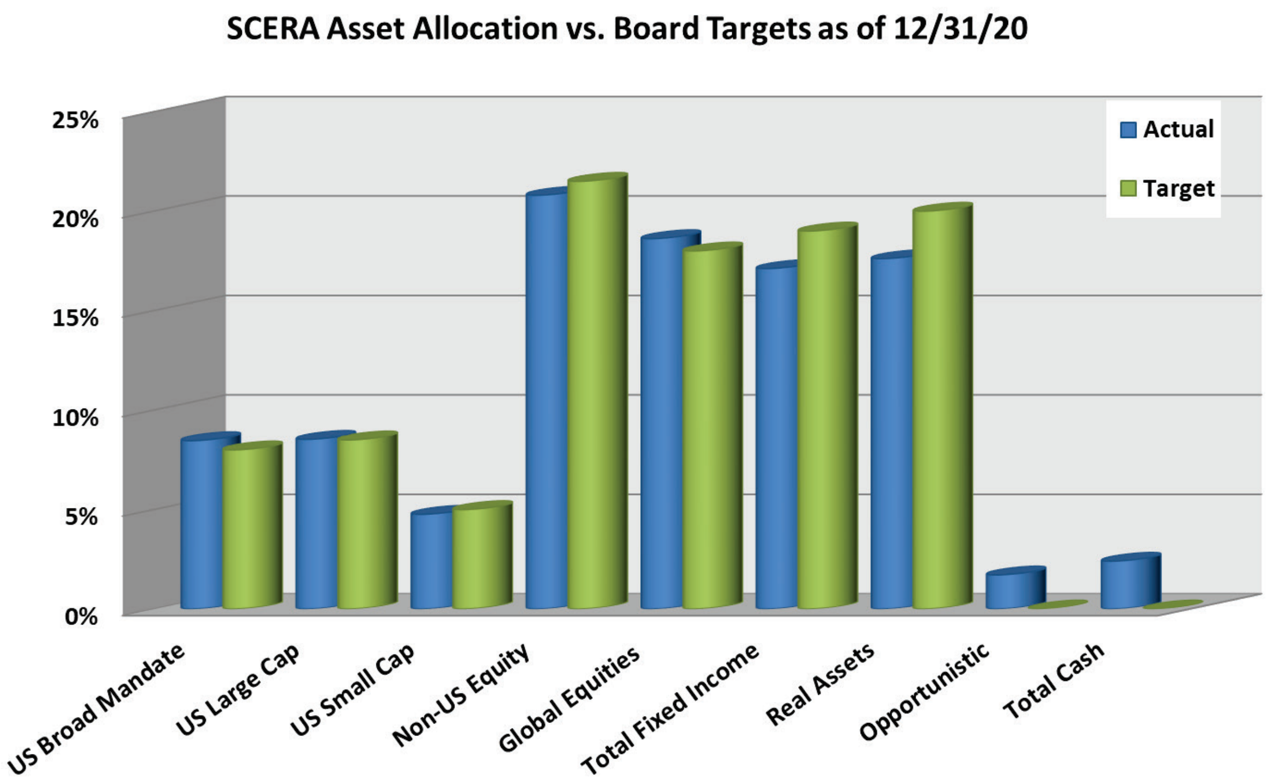
INVESTMENTS AT FAIR VALUE

Investments, at fair value (in thousands)		
Fixed Income	$ 504	16.7%
Equities	1,757	58.2%
Real Assets	554	18.3%
Asset Allocation	151	5.0%
Opportunistic	54	1.8%
Total Investments	$3,020	100.0%



ASSET ALLOCATION

Asset Allocation		
Sector	**% of Actual**	**% of Target**
US Broad Mandate	8.46%	8.00%
US Large Cap	8.53%	8.50%
US Small Cap	4.76%	5.00%
Non-US Equity	20.80%	21.50%
Global Equities	18.62%	18.00%
Total Fixed Income	17.11%	19.00%
Real Assets	17.61%	20.00%
Opportunistic	1.71%	0.00%
Total Cash	2.40%	0.00%
Total Asset Allocation	100.00%	100.00%



LARGEST EQUITY HOLDINGS

At December 31, 2020
(At Fair Value)

	Shares	Stock	Fair Value
1)	4,067	Amazon.Com Inc	$13,245,934
2)	51,151	Microsoft	11,377,005
3)	6,071	Alphabet Inc	10,635,664
4)	73,220	Apple Inc.	9,715,562
5)	98,100	Schwab Corp	5,203,224
6)	52,200	Capital One Financial	5,159,970
7)	156,042	Wells Fargo	4,709,348
8)	77,419	Gilead Sciences Inc	4,510,431
9)	10,786	Humana Inc	4,425,172
10)	28,915	Qualcom Inc	4,404,911
		Total Largest Equity Holdings	**$73,387,221**

LARGEST FIXED INCOME HOLDINGS

At December 31, 2020
(at Fair Value)

	Par	Bonds	Fair Value
1)	20,900,000	FNMA TBA 30 year 2.50% due 03/11/2051	$21,963,797
2)	15,050,000	U.S. Treasury 1.125% due 08/31/2021	15,152,293
3)	5,880,000	U.S. Treasury 0.625% due 08/15/2030	5,733,000
4)	4,896,603	Freddie Mac 3.00% due 03/15/2044	5,356,820
5)	4,450,000	U.S. Treasury 2.50% due 02/15/2045	5,306,799
6)	4,990,000	FNMA 15 year 2.00% due 02/18/2036	5,210,787
7)	4,900,000	U.S. Treasury 1.50% due 02/15/2030	5,183,855
8)	4,450,000	U.S. Treasury 2.50% due 02/15/2045	5,306,799
9)	4,990,000	FNMA TBA 15 year 2.00% due 02/18/2036	5,210,787
10)	4,900,000	U.S. Treasury 1.50% due 02/15/2030	5,183,855
		Total Largest Fixed Income Holdings	**$79,608,792**

A complete list of portfolio holdings is available upon request.

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Actuarial Section

Segal

180 Howard Street, Suite 1100
San Francisco, CA 94105-6147
segalco.com

April 30, 2021

Board of Retirement
Sonoma County Employees' Retirement Association
433 Aviation Boulevard, Suite 100
Santa Rosa, CA 95403

Re: Actuarial Valuation for the Sonoma County Employees' Retirement Association

Dear Members of the Board:

Segal prepared the December 31, 2020 actuarial valuation of the Sonoma County Employees' Retirement Association (SCERA). We certify that the valuation was performed in accordance with generally accepted actuarial principles and practices and SCERA's funding policy that was last reviewed and updated by the Board in 2020. In particular, it is our understanding that the assumptions and methods used for funding purposes meet the parameters set by the Actuarial Standards of Practice (ASOPs).

As part of the December 31, 2020 actuarial valuation, Segal conducted an examination of all participant data for reasonableness. However, the scope of this examination does not qualify as an audit. Summaries of the employee data used in performing the actuarial valuations over the past several years are provided in our valuation report. We did not audit the Association's financial statements. For actuarial valuation purposes, Plan assets are valued at actuarial value. Under this method, the assets used to determine employer contribution rates take into account market value by recognizing the differences between the total return at market value and the expected investment return on valuation value over a five-year period. The full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable.

One of the general goals of an actuarial valuation is to establish rates which, over time, will remain level as a percentage of payroll unless Plan benefit provisions are changed. Actuarial funding is based on the Entry Age Cost Method. Under this method, the employer contribution rate provides for current cost (normal cost) plus a level percentage of payroll to amortize any unfunded actuarial accrued liability (UAAL).

The outstanding balance of the December 31, 2007 restart UAAL is amortized over a 21-year declining period. The impact of the Cash Allowance and new UAAL established on each subsequent actuarial valuation is amortized over separate 20-year declining periods. All of the annual amortization payments are calculated on a level percentage of payroll basis.

Note N to the Basic Financial Statements and the Required Supplementary Information (RSI) included in the Financial Section were prepared by the Association based on the results of the Governmental Accounting Standards Board Statement No. 67 (GASB 67) actuarial valuation as of December 31, 2020 prepared by Segal. For the Financial Section of the Annual Comprehensive Financial Report, Segal provided the Schedule of the Changes in Net Pension Liability and Schedule of Employer Contributions as shown in the RSI. A listing of the other supporting schedules Segal prepared for inclusion in the Actuarial and Statistical Sections of the Association's Annual Comprehensive Financial Report is provided below. These schedules were prepared based on the results of the actuarial valuation as of December 31, 2020 for funding purposes.

5684902v5/05012.002

Board of Retirement
April 30, 2021
Page 2

1. Schedule of Retired Members (Including Beneficiaries) by Type of Benefit;
2. Schedule of Benefit Expenses by Type;
3. Schedule of Average Benefit Payment Amounts; and
4. Schedule of Retirees and Beneficiaries Added to and Removed from Retiree Payroll.

The valuation assumptions included in the Actuarial Section were adopted by the Retirement Board in conjunction with the December 31, 2020 actuarial valuation. It is our opinion that the assumptions used in the December 31, 2020 valuation produce results, which, in the aggregate, reflect the future experience of the Plan. Actuarial valuations are performed on an annual basis. An experience analysis is performed every three years. The next experience analysis is due to be performed as of December 31, 2020 and the assumptions approved in that analysis will be applied in the December 31, 2021 valuation.

In the December 31, 2020 valuation, the ratio of the valuation value of assets to actuarial accrued liabilities increased from 89.4% to 91.3%. The increase in the funded status was primarily the result of investment return (after "smoothing") higher than the 7.00% return assumption used in the December 31, 2019 valuation. The calculated employer's rate, resulting from this valuation, along with the calculated employee's rate at the average entry age are as follows, expressed as a percent of payroll:

	General		Safety	
	Employer Rate	**Employee Rate**	**Employer Rate**	**Employee Rate**
Plan A – County	18.24%	12.20%	28.75%	12.77%
Plan A – Court	32.21%	12.35%	N/A	N/A
Plan A – SVFD	16.61%	12.06%	35.22%	10.99%
Plan B – County	13.08%	10.43%	20.05%	15.18%
Plan B – Court	26.52%	10.43%	N/A	N/A
Plan B – SVFD	10.80%	7.40%	20.11%	12.94%
All Categories Combined (General & Safety):			**18.41%**	**11.81%**

Note: The above employer and employee rates have not been adjusted to reflect that some active members represented by some of the bargaining groups have agreed to pay additional employee Normal Cost contributions that are above those provided in the table.

As a result of using the actuarial value of assets in the actuarial valuation, there were $92.0 million in net deferred investment gains as of December 31, 2020, which represented 3.0% of the market value of assets. If these net deferred investment gains were recognized immediately in the actuarial value of assets, the funded percentage would increase from 91.3% to 94.2% and the aggregate employer contribution rate, expressed as a percent of payroll, would decrease from 18.4% to 16.8%.

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

Sincerely,

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

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

OH/bbf
Enclosures

Segal

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SUMMARY OF ASSUMPTIONS AND FUNDING METHOD

The Entry Age Normal Cost Method was used in conjunction with the following actuarial assumptions. The funding policy adopted by the Board is to amortize the outstanding balance of the December 31, 2007 unfunded actuarial accrued liability (UAAL) as well as any new UAAL established on each subsequent actuarial valuation after the December 31, 2007 valuation over separate 20-year declining periods. This approach is often referred to as a "layered amortization method". The Board as of December 31, 2020, has adopted the following interest rate and inflation rate assumptions:

ASSUMPTIONS

Valuation Interest Rate	7.00%
Inflation Assumption	2.75%
Across the Board Salary Increase	0.50%
Interest Credited to Reserve Accounts	7.00%
Cost of Living Adjustments	Provided on an ad hoc basis, subject to availability of excess earnings, none assumed in the valuation
Asset Valuation	Smoothed Actuarial Value

The following demographic and salary increase assumptions were used with the actuarial valuation as of December 31, 2020. These assumptions were updated based on the System's actual experience through December 31, 2017. The assumptions were selected by the actuary and approved by the Board.

Post-Retirement Mortality	
(a) Service	
General and Safety Members and Beneficiaries	Headcount-Weighted RP-2014 Healthy Annuitant Table times 94% for males and 102% for females, projected generationally with the 2-dimensional mortality improvement scale MP2017
(b) Disability	
General and Safety Members	Headcount-Weighted RP-2014 Disabled Retiree Table times 91% for males and 93% for females, projected generationally with the 2-dimensional mortality improvement scale MP2017
(c) For Employee Contribution Rate Purposes	
General Members	Headcount-Weighted RP-2014 Healthy Annuitant Table times 94% for males and 102% for females, projected 20 years with 2-dimensional scale MP2017, weighted 33.33% male and 66.67% female
Safety Members	Headcount-Weighted RP-2014 Healthy Annuitant Table times 94% for males and 102% for females, projected 20 years with 2-dimensional scale MP2017, weighted 75% male and 25% female
Pre-Retirement Mortality	
General and Safety Members	Headcount-Weighted RP-2014 Employee Table times 93% for males and 95% for females, projected generationally with the 2-dimensional mortality improvement scale MP2017
Withdrawal Rates	Based upon the Experience Analysis as of 12/31/17 (Table on Page 69)
Disability Rates	Based upon the Experience Analysis as of 12/31/17 (Table on Page 69)
Service Retirement Rates	Based upon the Experience Analysis as of 12/31/17 (Table on Page 69)
Reciprocity Assumption	25% of General members and 40% of Safety members who terminate with a vested benefit are assumed to enter a reciprocal system
Salary Scales	As shown in Table on Page 70
Leave Conversion Compensation Increase	3.75% for General Plan A Superior Court; 2.00% Sonoma Valley Fire General members, 3.00% for Safety Plan A Sonoma Valley Fire members
Spouses and Dependents	70% of male employees and 55% of female employees assumed married at retirement. Female spouses are assumed to be 4 years younger than their male member spouses. Male spouses are assumed to be 2 years older than their female member spouses.
Deferral Vested Retirement Age	58 for General members; 53 for Safety members

PROBABILITIES OF SEPARATION FROM ACTIVE SERVICE

General Members						
Age Nearest	**Withdrawal**	**Mortality Male[1]**	**Mortality Female[1]**	**Disability[2]**	**Service[4]**	**Terminated Vested[5]**
20	.0150	.0005	.0002	.0005	.0000	.0350
30	.0138	.0006	.0003	.0005	.0000	.0350
40	.0054	.0007	.0005	.0014	.0000	.0270
50	.0032	.0019	.0013	.0031	.0600	.0200
60	.0014	.0053	.0029	.0043	.2500	.0200

Safety Members						
Age Nearest	**Withdrawal**	**Mortality Male[1]**	**Mortality Female[1]**	**Disability[3]**	**Service[4]**	**Terminated Vested[5]**
20	.0160	.0005	.0002	.0010	.0000	.0400
30	.0124	.0006	.0003	.0068	.0000	.0340
40	.0025	.0007	.0005	.0150	.0000	.0140
50	.0002	.0019	.0013	.0250	.1800	.0030
60	.0000	.0053	.0029	.0300	.7500	.0000

(1) All pre-retirement deaths are assumed to be non-service connected deaths.
(2) 55% of General disabilities are assumed to be service connected disabilities. The other 45% are assumed to be non-service disabilities.
(3) 95% of Safety disabilities are assumed to be service connected disabilities. The other 5% are assumed to be non-service connected disabilities.
(4) Retirement rates shown above are for non-PEPRA members with less than 30 years of service.
(5) Withdrawal and vested termination rates shown above are for members with at least five years of service.

The probabilities shown for each cause of termination represent the likelihood that a given member will terminate at a particular age for the indicated reason. For example, if the probability of withdrawal of a Safety member at age 30 is 0.0124, then we are assuming that 1.24% of the active Safety members at age 30 will terminate without vested rights during the next year.

ACTUARIAL ASSUMPTIONS FOR MERIT AND LONGEVITY SALARY INCREASE RATES

As of December 31, 2020

Consists of the sum of two parts: A uniform inflation component of 2.75% plus "Across the Board" salary increases of 0.50% per year; plus an age-related component for merit and promotion increases:

Years of Service	General Members	Safety Members
Less than 1	5.50%	7.50%
1-2	5.00%	7.00%
2-3	4.50%	5.00%
3-4	3.50%	4.00%
4-5	2.50%	3.50%
5-6	1.50%	1.50%
6-7	1.25%	1.25%
7-8	1.00%	1.25%
8-9	0.95%	1.25%
9-10	0.90%	1.25%
10-11	0.85%	1.25%
11-12	0.80%	1.25%
12-13	0.75%	1.25%
13-14	0.75%	1.00%
14-15	0.75%	1.00%
15 & Over	0.50%	0.75%

SCHEDULE OF FUNDING PROGRESS
(Dollars in Thousands)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Projected Covered Payroll (c)	UAAL as a % of Covered Payroll ((b-a)/c)
12/31/11	$1,867,117	$2,220,520	$353,403	84.1%	$308,644	114.5%
12/31/12	1,856,847	2,351,087*	494,240	79.0%	302,764	163.2%
12/31/13	2,016,781	2,466,224	449,443	81.8%	329,896	136.2%
12/31/14	2,167,210	2,510,253	343,043	86.3%	324,418	105.7%
12/31/15	2,289,057	2,694,979	405,922	84.9%	339,518	119.6%
12/31/16	2,399,171	2,807,398	408,227	85.5%	356,129	114.6%
12/31/17	2,557,299	2,916,856	359,557	87.7%	369,751	97.2%
12/31/18	2,667,345	3,072,077	404,732	86.8%	378,159	107.0%
12/31/19	2,811,292	3,143,323	332,031	89.4%	378,159	87.8%
12/31/20	$2,981,688	$3,264,403	$282,715	91.3%	$400,564	70.6%

* The December 31, 2012 Actuarial Accrued Liability was recalculated by the Actuary to reflect the value of the elimination by the County of Sonoma of vacation and sick leave cash outs for all employees.

SCHEDULE OF ACTIVE MEMBER VALUATION DATA

Valuation Date	Plan Type	Number	Annual Payroll $	Annual Average Pay $	Percentage of Increase (Decrease) in Average Pay*
12/31/11					
	General	2,900	$239,781,000	$ 82,683	0.4%
	Safety	687	68,863,000	100,236	1.0%
	Total	3,587	308,644,000	86,045	0.5%
12/31/12					
	General	2,928	235,101,000	80,294	-2.9%
	Safety	692	67,662,000	97,778	-2.5%
	Total	3,620	302,763,000	83,636	-2.8%
12/31/13					
	General	3,125	258,101,000	82,592	2.8%
	Safety	708	71,793,000	101,403	3.7%
	Total	3,833	329,894,000	86,067	2.9%
12/31/14					
	General	3,211	255,577,000	79,594	-3.6%
	Safety	711	68,841,000	96,824	-4.5%
	Total	3,922	324,418,000	82,718	-3.9%
12/31/15					
	General	3,366	270,904,000	80,483	1.1%
	Safety	705	68,612,000	97,323	0.5%
	Total	4,071	339,516,000	83,399	0.8%
12/31/16					
	General	3,411	285,234,000	83,622	3.9%
	Safety	701	70,896,000	101,135	3.9%
	Total	4,112	356,130,000	86,607	3.9%
12/31/17					
	General	3,385	294,379,000	86,966	4.0%
	Safety	725	75,372,000	103,961	2.8%
	Total	4,110	369,751,000	89,964	3.9%
12/31/18					
	General	3,309	300,960,000	90,952	4.6%
	Safety	712	77,200,000	108,427	4.3%
	Total	4,021	378,160,000	94,046	4.5%
12/31/19					
	General	3,334	302,388,000	90,698	-0.3%
	Safety	706	75,771,000	107,324	-1.0%
	Total	4,040	378,159,000	93,604	-0.5%
12/31/20					
	General	3,368	318,143,000	94,461	4.2%
	Safety	722	82,419,000	114,154	6.4%
	Total	4,090	$400,562,000	$ 97,937	4.6%

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

SCHEDULE OF RETIREES AND BENEFICIARIES ADDED TO AND REMOVED FROM RETIREE PAYROLL

(Dollars in Thousands)

	Added to Rolls		Removed from Rolls		Rolls- End of Year			
Plan Year	No.	Annual Allowances	No.	Annual Allowances	No.	Annual Allowances	Increase in Annual Allowances	Average Annual Allowances
2011	334	$14,265,604	93	$2,513,488	4,021	$118,745,892	11.0%	$29,531
2012	320	13,849,254	83	1,553,730	4,258	131,041,416	10.4%	30,775
2013	210	7,701,998	74	1,605,950	4,394	137,137,464	4.7%	31,210
2014	221	8,161,011	109	2,283,279	4,506	143,015,196	4.3%	31,739
2015	250	9,770,420	103	2,557,112	4,653	150,228,504	5.0%	32,286
2016	275	10,781,541	116	2,399,349	4,812	158,610,696	5.6%	32,961
2017	247	10,357,620	123	3,161,640	4,936	165,806,676	4.5%	33,591
2018	282	11,112,780	122	2,346,684	5,096	174,572,772	5.3%	34,247
2019	271	10,852,601	117	2,825,537	5,250	182,599,836	4.6%	34,781
2020	221	$ 9,145,755	124	$2,928,699	5,347	$188,816,892	3.4%	$35,313

SCHEDULE OF FUNDED LIABILITIES BY TYPE

(Dollars in Thousands)

		Aggregate Accrued Liabilities for				Portion of Accrued Liabilities Covered by Reported Assets		
	(1)	(2)	(3)					
Valuation Date	Active Member Contributions	Retired/ Vested Members	Active Members (Employer Financed Portion)	Total	Actuarial Value of Assets	(1)	(2)	(3)
12/31/11	$408,736	$1,217,952	$593,832	$2,220,520	$1,867,117	100	100	40
12/31/12	428,407	1,389,477	533,203	2,351,087*	1,856,847	100	100	7
12/31/13	450,989	1,443,559	571,676	2,466,224	2,016,781	100	100	21
12/31/14	484,181	1,498,062	528,010	2,510,253	2,167,210	100	100	35
12/31/15	513,444	1,633,647	547,888	2,694,979	2,289,057	100	100	26
12/31/16	534,785	1,717,405	555,208	2,807,398	2,399,171	100	100	27
12/31/17	569,375	1,785,450	562,031	2,916,856	2,557,299	100	100	36
12/31/18	600,487	1,882,466	589,124	3,072,077	2,667,345	100	100	31
12/31/19	593,655	1,963,064	586,604	3,143,323	2,811,292	100	100	43
12/31/20	$603,510	$2,016,270	$644,623	$3,264,403	$2,981,688	100	100	56

This exhibit includes actuarially funded liabilities and assets.

* The December 31, 2012 Actuarial Accrued Liability was recalculated by the Actuary to reflect the value of the elimination by the County of Sonoma of vacation and sick leave cash outs for all employees.

ACTUARIAL ANALYSIS OF FINANCIAL EXPERIENCE

Items Impacting Unfunded Actuarial Accrued Liability (UAAL)

(Dollars in Thousands)

Plan Years	2020	2019	2018	2017	2016
Beginning of the Year UAAL Liability (Surplus)	$ 332,031	$ 404,732	$ 359,557	$ 408,227	$ 405,922
Source of Actuarial (Gain) Loss:					
Compensation Increase/(Decrease)	17,286	(34,651)	11,293	4,586	5,983
Expected Contributions	(255)	12,332	(493)	4,568	4,094
Investment Experience Recognized	(41,110)	(32,718)	13,629	(44,256)	891
Other Experience	(983)	(2,786)	661	(3,890)	(859)
Subtotal: Actuarial (Gain) Loss	(25,062)	(57,823)	25,090	(38,992)	10,109
Other Items Impacting UAAL:					
Assumption Change (Triennial Experience Study)	0	0	31,798	0	0
Interest Accrual on UAAL Balance	22,003	27,009	24,876	28,358	28,249
Additional UAAL Contributions from County	(7,128)	0	0	0	0
Expected employer/employee contributions less normal cost	(39,129)	(41,887)	(36,589)	(38,036)	(36,053)
End of the Year UAAL Liability (Surplus)	$ 282,715	$ 332,031	$ 404,732	$ 359,557	$ 408,227

SUMMARY OF PLAN PROVISIONS

Briefly summarized below are the major provisions of the County Employees Retirement Law of 1937, and the California Public Employees' Pension Reform Act of 2013, as amended through December 31, 2020.

Membership
Membership becomes effective on the first day of entrance into eligible service.

Highest Average Compensation
Highest average compensation is defined as the highest 12 consecutive months of compensation earnable for Plan A members, subject to a cap of 100% of salary. For Plan B members it is defined as highest 36 consecutive months of pensionable compensation, subject to the Social Security taxable wage base limit adjusted for inflation.

Return of Contributions
If a member should resign or die before becoming eligible for retirement, the member's contributions plus interest will be refunded upon request. In lieu of receiving a return of contributions, a member may elect to leave his or her contributions on deposit.

Service Retirement Benefit
Plan A members are eligible to retire at age 50 with 10 years of service or 30 years of service (Safety members 20 years) regardless of age. Plan B members are eligible to retire at age 52 (age 50 for Safety) with 5 years of service. All members may retire at age 70 regardless of years of service.

Basis of Benefit Payments
Benefits are based upon a combination of age, years of service, highest average compensation, and the benefit payment option selected by the member, up to the Internal Revenue Code Section 415 limit.

Cost of Living Benefit
SCERA has approved, on an ad hoc basis, multiple one-time post-retirement cost of living increases. These cost of living increases have been funded by transfers from the Undistributed Investment Earnings, Interest Fluctuation Reserve above statutory limits into the Cost of Living Reserve account.

Disability Benefit
Members with 5 years of service, regardless of age, are eligible to apply for a non-service connected disability retirement. Service connected disability retirement benefits may be granted regardless of length of service.

Death Benefit - Prior to Retirement
In addition to the return of contributions, a death benefit is payable to the member's beneficiary or estate equal to one month's salary for each completed year of service under the retirement system, but not to exceed 6 months of salary. The death benefit is based on the salary earned during the last twelve months preceding the member's death.

If a member dies while eligible for service retirement or non-service connected disability, his or her spouse or domestic partner receives 60% of the allowance that the member would have received for retirement on the day of his or her death.

If a member dies in the performance of duty, the spouse or registered domestic partner will receive a lifetime benefit equal to 50% of the member's highest one-year average compensation or a service retirement benefit whichever is higher.

Death Benefit - After Retirement
As part of the retirement process, members are required to select among several options for benefits continuation upon the member's death. For married retirees, the most common retirement option is the unmodified option, which pays the retiree's eligible spouse or registered domestic partner a lifetime benefit equal to 60% of the benefit the retiree was receiving.

Contributions
Contribution rates for the participating employers and their covered employees are established and may be amended by the SCERA Board of Retirement, and then implemented by all participating employers. The contribution rates are based on the benefit structure established by the employer. Plan A members are required to contribute between 7% and 15% of their annual covered salary and their particular rate is based upon age at entry to the System. Plan B members contribute one half of the normal cost of their benefit. The employer is required to contribute the remaining amounts necessary to finance the coverage of their employees through periodic contributions at actuarially determined rates.

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Statistical Section

STATISTICAL SECTION OVERVIEW

This section provides additional detailed information in order to promote a more comprehensive understanding of this year's financial statements, note disclosures, and supplemental information. In addition, this section provides multi-year trends of the financial and operational information in order to facilitate the understanding of how the organization's financial position and performance have changed over time. This section provides contextual data for SCERA's changes in Fiduciary Net Position, benefit expenses, retirement types, benefit payments and membership data.

CHANGES IN FIDUCIARY NET POSITION

Last Ten Years

(Dollars in Thousands)	2020	2019	2018	2017	2016
Additions					
Employer Contributions	$ 77,506	$ 65,155	$ 67,425	$ 63,822	$ 63,639
Member Contributions	47,364	44,659	45,567	44,161	40,783
Net Investment Income/(Loss)	225,040	415,559	(107,078)	394,909	189,949
Total Additions	349,910	525,373	5,914	502,892	294,371
Deductions					
Retirement Benefits	185,982	179,424	170,370	162,973	155,220
Refunds	4,111	3,322	2,192	2,975	2,232
Administrative Expenses	2,846	3,152	3,072	3,156	3,665
Other Expenses	186	394	511	576	554
Total Deductions	193,125	186,292	176,145	169,680	161,671
Change in Fiduciary Net Position	$156,785	$339,081	$(170,231)	$333,212	$132,700

(Dollars in Thousands)	2015	2014	2013	2012	2011
Additions					
Employer Contributions	$ 68,240	$ 61,179	$ 51,852	$ 45,079	$ 35,711
Member Contributions	38,714	37,126	35,492	36,963	35,944
Net Investment Income/(Loss)	34,589	117,663	370,240	242,604	3,906
Total Additions	141,543	215,968	457,584	324,646	75,561
Deductions					
Retirement Benefits	147,277	140,430	134,311	123,832	113,000
Refunds	2,087	1,246	1,650	2,133	1,919
Administrative Expenses	3,268	3,107	3,227	2,992	2,880
Other Expenses	258	483	550	548	795
Total Deductions	152,890	145,266	139,738	129,505	118,594
Change in Fiduciary Net Position	$(11,347)	$ 70,702	$317,846	$195,141	$(43,033)

REVENUES BY SOURCE
(Dollars in Thousands)

Fiscal Year Ended 12/31	Member Contributions	Employer Contributions	Investment Net Income/(Loss)	Total
2011	$35,944	$35,711	$ 3,906	$ 75,561
2012	36,963	45,079	242,604	324,646
2013	35,492	51,852	370,240	457,584
2014	37,126	61,179	117,663	215,968
2015	38,714	68,240	34,589	141,543
2016	40,783	63,639	189,949	294,371
2017	44,161	63,822	394,909	502,892
2018	45,567	67,425	(107,078)	5,914
2019	44,659	65,155	415,559	525,373
2020	$47,364	$77,506	$ 225,040	$349,910

EXPENSES BY TYPE
(Dollars in Thousands)

Fiscal Year Ended 12/31	Pension Benefits	Administrative & Other Expenses	Contribution Refunds	Total
2011	$113,000	$3,675	$1,919	$118,594
2012	123,832	3,540	2,133	129,505
2013	134,311	3,777	1,650	139,738
2014	140,430	3,590	1,246	145,266
2015	147,277	3,526	2,087	152,890
2016	155,220	4,219	2,232	161,671
2017	162,973	3,732	2,975	169,680
2018	170,370	3,583	2,192	176,145
2019	179,424	3,546	3,322	186,292
2020	$185,982	$3,032	$4,111	$193,125

SCHEDULE OF BENEFIT EXPENSES BY TYPE

(Estimated Based upon Annualized Benefit Amounts as of December 31 of each year)
(Dollars in Thousands)

	2020	2019	2018	2017	2016
Service Retirement Payroll:					
General	$125,424	$121,503	$117,058	$111,380	$107,281
Safety	31,511	30,507	28,353	26,318	24,488
Total	156,935	152,010	145,411	137,698	131,769
Disability Retiree Payroll:					
General	7,240	7,321	7,391	7,450	7,298
Safety	13,187	12,836	11,856	11,232	10,818
Total	20,427	20,157	19,247	18,682	18,116
Beneficiary Payroll:					
General	8,411	7,756	7,393	7,083	6,534
Safety	3,044	2,677	2,521	2,345	2,190
Total	11,455	10,433	9,914	9,428	8,724
Total Benefit Expense:					
General	141,075	136,580	131,842	125,913	121,113
Safety	47,742	46,020	42,730	39,895	37,496
Total	$188,817	$182,600	$174,572	$165,808	$158,609

	2015	2014	2013	2012	2011
Service Retirement Payroll:					
General	$101,918	$ 97,528	$ 93,074	$ 88,930	$ 78,870
Safety	23,137	21,767	20,708	19,738	17,975
Total	125,055	119,295	113,782	108,668	96,845
Disability Retiree Payroll:					
General	7,141	7,312	7,431	7,286	7,269
Safety	9,732	9,073	8,790	8,494	8,253
Total	16,873	16,385	16,221	15,780	15,522
Beneficiary Payroll:					
General	6,252	5,502	5,387	4,912	4,765
Safety	2,048	1,834	1,748	1,681	1,614
Total	8,300	7,336	7,135	6,593	6,379
Total Benefit Expense:					
General	115,311	110,342	105,892	101,128	90,904
Safety	34,917	32,674	31,246	29,913	27,842
Total	$150,228	$143,016	$137,138	$131,041	$118,746

Source of data: December 31, 2020 Actuarial Valuation Report
SCERA systems do not provide the level of detail necessary to fully populate this table. Therefore, SCERA actuaries provide an estimate using December 31 data which is then annualized.

SCHEDULE OF RETIRED MEMBERS BY TYPE OF BENEFIT

Summary of Monthly Allowances Being Paid – As of December 31, 2020
(Dollars in Thousands)

	General Members		Safety Members		Total	
	Number	Monthly Allowance	Number	Monthly Allowance	Number	Monthly Allowance
Retired Members						
Service Retirement	3,500	$10,452	554	$2,626	4,054	$13,078
Ordinary Disability	92	121	13	21	105	142
Duty Disability	231	482	309	1,078	540	1,560
Beneficiaries	516	701	132	254	648	955
Total Retired Members	4,339	$11,756	1,008	$3,978	5,347	$15,735

Source of data: December 31, 2020 Actuarial Valuation Report

SCHEDULE OF AVERAGE BENEFIT PAYMENT AMOUNTS
(Estimated Based upon Annualized Benefit Amounts as of December 31 of each year)

	Number of Years of Service						
(Dollars in Thousands)	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30 & Over**
Valuation date 12/31/11							
Final Average Salary	$4,168	$4,475	$4,960	$5,391	$5,882	$6,243	$6,865
Average Monthly Benefit of Retirees	$905	$1,254	$1,630	$2,383	$3,323	$4,434	$5,944
Number Retirees	253	453	853	600	503	356	367
Average Monthly Benefit of Beneficiaries	$874	$724	$865	$1,111	$1,505	$1,988	$2,234
Number Beneficiaries	20	56	91	60	42	41	34
Valuation date 12/31/12							
Final Average Salary	$4,281	$4,683	$5,207	$5,537	$6,113	$6,445	$7,070
Average Monthly Benefit of Retirees	$885	$1,294	$1,716	$2,444	$3,446	$4,556	$6,063
Number Retirees	267	475	917	621	536	388	398
Average Monthly Benefit of Beneficiaries	$868	$715	$875	$1,104	$1,590	$2,006	$2,248
Number Beneficiaries	21	60	91	61	43	40	36
Valuation date 12/31/13							
Final Average Salary	$4,361	$4,843	$5,344	$5,699	$6,329	$6,600	$7,243
Average Monthly Benefit of Retirees	$887	$1,314	$1,761	$2,503	$3,572	$4,640	$6,168
Number Retirees	279	488	955	643	568	407	403
Average Monthly Benefit of Beneficiaries	$827	$696	$893	$1,129	$1,607	$1,984	$2,251
Number Beneficiaries	25	63	95	67	50	43	43
Valuation date 12/31/14							
Final Average Salary	$4,437	$4,946	$5,469	$5,867	$6,439	$6,716	$7,396
Average Monthly Benefit of Retirees	$864	$1,314	$1,798	$2,570	$3,632	$4,719	$6,246
Number Retirees	291	503	987	669	580	424	410
Average Monthly Benefit of Beneficiaries	$759	$763	$936	$1,138	$1,627	$1,979	$2,308
Number Beneficiaries	29	68	96	66	53	41	44
Valuation date 12/31/15							
Final Average Salary	$4,414	$5,007	$5,567	$6,005	$6,563	$6,923	$7,583
Average Monthly Benefit of Retirees	$849	$1,329	$1,833	$2,625	$3,703	$4,827	$6,316
Number Retirees	296	519	1,017	687	595	445	419
Average Monthly Benefit of Beneficiaries	$742	$791	$960	$1,322	$1,617	$1,991	$2,317
Number Beneficiaries	29	69	103	75	56	56	49

SCHEDULE OF AVERAGE BENEFIT PAYMENT AMOUNTS, *continued*
(Estimated Based upon Annualized Benefit Amounts as of December 31 of each year)

	Number of Years of Service						
(Dollars in Thousands)	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30 & Over**
Valuation date 12/31/16							
Final Average Salary	$5,487	$5,225	$5,587	$5,931	$6,533	$6,712	$7,242
Average Monthly Benefit of Retirees	$857	$1,367	$1,884	$2,711	$3,826	$4,893	$6,368
Number Retirees	310	532	1,045	734	615	455	433
Average Monthly Benefit of Beneficiaries	$661	$791	$975	$1,317	$1,617	$1,998	$2,301
Number Beneficiaries	31	69	109	76	60	58	55
Valuation date 12/31/17							
Final Average Salary	$5,699	$5,381	$5,715	$6,027	$6,594	$6,872	$7,411
Average Monthly Benefit of Retirees	$883	$1,380	$1,928	$2,768	$3,858	$5,004	$6,527
Number Retirees	323	550	1,067	767	631	464	438
Average Monthly Benefit of Beneficiaries	$744	$805	$961	$1,280	$1,930	$2,000	$2,487
Number Beneficiaries	32	73	110	77	67	58	58
Valuation date 12/31/18							
Final Average Salary	$6,003	$5,576	$5,857	$6,159	$6,743	$7,026	$7,475
Average Monthly Benefit of Retirees	$884	$1,405	$1,973	$2,844	$3,963	$5,130	$6,604
Number Retirees	333	566	1,097	793	662	482	444
Average Monthly Benefit of Beneficiaries	$784	$791	$1,002	$1,348	$1,907	$1,994	$2,470
Number Beneficiaries	35	77	115	80	68	63	61
Valuation date 12/31/19							
Final Average Salary	$6,328	$5,742	$5,997	$6,271	$6,830	$7,053	$7,630
Average Monthly Benefit of Retirees	$861	$1,415	$2,019	$2,903	$4,010	$5,180	$6,743
Number Retirees	351	590	1,126	816	690	495	456
Average Monthly Benefit of Beneficiaries	$779	$805	$1,054	$1,337	$1,929	$1,990	$2,465
Number Beneficiaries	36	81	115	83	74	64	67
Valuation date 12/31/20							
Final Average Salary	$6,482	$5,843	$6,079	$6,320	$6,940	$7,147	$7,720
Average Monthly Benefit of Retirees	$853	$1,435	$2,054	$2,926	$4,085	$5,241	$6,837
Number Retirees	361	600	1,135	832	716	500	462
Average Monthly Benefit of Beneficiaries	$800	$907	$1,147	$1,393	$2,022	$2,051	$2,561
Number Beneficiaries	43	82	121	86	77	70	71

Source of data: December 31, 2020 Actuarial Valuation Report

PARTICIPATING EMPLOYERS AND ACTIVE MEMBERS

As of December 31 of each year

	Total-All Employers	County of Sonoma	Water Agency	Sonoma Valley Fire District	Community Development Commission	Transportation Authority	Superior Court
Year 2020							
Number of Covered Employees	4,090	3,582	231	59	37	12	169
Percentage to Total System	100%	87.59%	5.65%	1.44%	0.90%	0.29%	4.13%
Year 2019							
Number of Covered Employees	4,040	3,536	215	50	46	14	179
Percentage to Total System	100%	87.52%	5.32%	1.24%	1.14%	0.35%	4.43%
Year 2018							
Number of Covered Employees	4,021	3,526	217	47	40	13	178
Percentage to Total System	100%	87.69%	5.40%	1.17%	.99%	0.32%	4.43%
Year 2017							
Number of Covered Employees	4,110	3,608	217	46	43	12	184
Percentage to Total System	100%	87.79%	5.27%	1.12%	1.05%	0.29%	4.48%
Year 2016							
Number of Covered Employees	4,112	3,612	219	40	41	12	188
Percentage to Total System	100%	87.84%	5.33%	0.97%	1.00%	0.29%	4.57%
Year 2015							
Number of Covered Employees	4,071	3,577	215	41	39	11	188
Percentage to Total System	100%	87.87%	5.28%	1.00%	0.96%	0.27%	4.62%
Year 2014							
Number of Covered Employees	3,922	3,465	202	39	35	10	171
Percentage to Total System	100%	88.35%	5.15%	1.0%	0.89%	0.25%	4.36%
Year 2013							
Number of Covered Employees	3,833	3,383	195	40	31	10	174
Percentage to Total System	100%	88.26%	5.09%	1.04%	0.81%	0.26%	4.54%
Year 2012							
Number of Covered Employees	3,620	3,176	187	40	30	10	177
Percentage to Total System	100%	87.73%	5.17%	1.10%	0.83%	0.28%	4.89%
Year 2011							
Number of Covered Employees	3,587	3,150	183	16	36	8	194
Percentage to Total System	100%	87.82%	5.10%	0.45%	1.00%	0.22%	5.41%

Source of data: SCERA systems

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