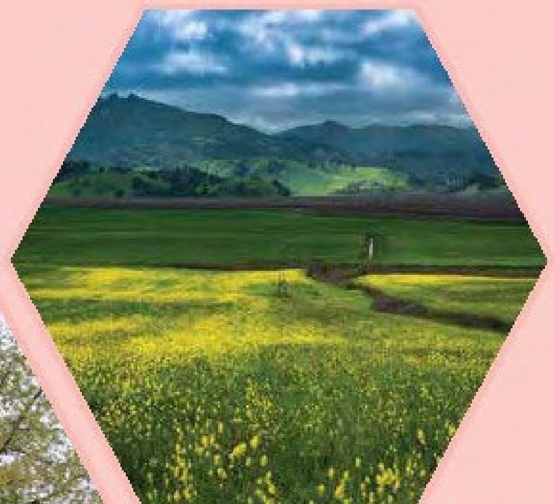
SCERA

Sonoma County Employees' Retirement Association 2022



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

Annual Comprehensive Financial Report For the Year Ended December 31, 2022

Annual Comprehensive Financial Report

For the year ended December 31, 2022

Sonoma County Employees' Retirement Association

A Pension Trust Fund for the County of Sonoma

ISSUED BY

JULIE WYNE
CHIEF EXECUTIVE OFFICER

CHERYL ENOLD
FINANCE AND RETIREE SERVICES MANAGER

JAMES FAILOR
CHIEF INVESTMENT OFFICER

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Santa Rosa, California 95403
(707) 565-8100
www.scretire.org

SCERA

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Cover: Designed by Valdemar Galvan

SCERA

Introductory Section

Sonoma County Employees' Retirement Association
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Tel: (707) 565-8100 / Fax: (707) 565-8102 / www.scretire.org

Julie Wyne
Chief Executive Officer

May 31, 2023

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, 2022.

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 pension and survivor benefits to the safety and general members employed by Sonoma County, Superior Court of California – County of Sonoma (Superior Court), and Sonoma Valley Fire District.

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 Sonoma County Board of Supervisors and governing bodies of participating districts adopt the benefit formulas and plan provisions that apply to SCERA members. 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 elected by the retired members of SCERA. 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, 2022, 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 Segal, an independent actuarial firm, to perform actuarial valuations of the System annually. As of December 31, 2022, the funding status (the ratio of Valuation Value of Assets to Actuarial Accrued Liabilities) is 92.4%.

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 may be 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 in 2021 and performed on data for the period of January 1, 2018 through December 31, 2020. The resulting assumption changes were implemented for the plan year beginning January 1, 2022.

Investments

The Board has exclusive control of all investments of the 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, 2022, the SCERA investment portfolio experienced a return of minus 6.87% compared to a return of 18.6% for the year ended December 31, 2021. The SCERA fund annualized rates of return over the last 3, 5, 10 and 20-year periods, were 6.26%, 6.25%, 8.46% and 8.08%, respectively.

Service Efforts and Accomplishments

Operations

This year brought several notable personnel changes. SCERA welcomed a new Assistant CEO/Chief Legal Counsel, a new Finance & Retiree Services Manager, a new Investment Officer, and expanded the Finance and Retiree Services Division by one Accountant position.

Towards the end of the year, the SCERA Board created an Ad Hoc Committee of four Trustees and the CEO to explore the retiree Purchasing Power Cost of Living Adjustment (COLA) program currently in place, as SCERA has not been able to recommend a COLA to the Sonoma County Board of Supervisors since 2008. The Purchasing Power COLA is funded by "excess earnings," which are determined by SCERA based upon state law and policies adopted by the SCERA Board. In order to determine whether there are excess earnings, SCERA must first credit interest to the reserve accounts for employee contributions, employer contributions, retiree and beneficiary benefits, COLA and a contingency reserve that is supposed to hold a certain percentage of the plan's assets. SCERA does not currently have a COLA reserve or a contingency reserve because those reserves were used in years where SCERA did not earn enough investment earnings to credit interest as required by state law and policy. Even after using the funds in the COLA and contingency reserve, SCERA still did not have enough earnings to credit interest, so we tracked the shortfall in a reserve we call the negative contingency reserve. This reserve has grown over the years whenever SCERA did not earn enough investment earnings to both credit interest and reduce the amount in the negative contingency reserve.

The goal of the Committee is to explore, with Sonoma County representatives, policy options and COLA program designs available under current law and potentially available with legislation. SCERA is not advocating for a different COLA program, as it is the County that establishes the COLA benefit, and it is the County that can change it. SCERA is looking to work with the County to help identify alternatives to the current COLA program, as the current program will not provide a retiree COLA until the large negative contingency reserve balance is brought to zero, a contingency reserve is funded with 3% of the plan's assets, and the Purchasing Power COLA can be fully funded with excess earnings.

Budget

The Board approves SCERA's annual budget. The CERL limits SCERA's annual administrative expenses, excluding the costs of administration for computer software and hardware, computer technology consulting service ("IT costs") and actuarial and investment related expenses, to twenty-one hundredths of one percent (0.21%) of the System's actuarial accrued liability. SCERA has chosen to include IT costs in its administrative budget subject to the 0.21% limit. SCERA's administrative expenses have historically been far below this limitation and this year was no exception. In 2022, SCERA's administrative expense, including IT costs, totaled $3.4 million and was 0.09% of SCERA's actuarial accrued liability as of December 31, 2022.

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 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.

Retirement Board

Safety Member Brian Williams was re-elected to his position and the Board of Supervisors appointed Supervisor Chris Coursey to replace appointed member Susan Gorin. We are very pleased with the election and appointment of these Trustees and greatly appreciate the continuity of our Board. The Board officers were Brian Williams, Chair, and Robert Williamson, Vice Chair, and our Investment Committee officers were Greg Jahn, Chair, and Erick Roeser, Vice Chair.

Certificates of Achievement

These awards recognize contributions to the practice of government finance exemplifying outstanding financial management. In doing so, they stress practical, documented work that offers leadership to the profession.

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 Annual Comprehensive Financial Report for the fiscal year ended December 31, 2021. 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 third 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, 2021. The PAFR is sent to all SCERA members and includes highlights of the Annual Comprehensive Financial Report. This was the eighteenth 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 2021. This is the seventh 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. SCERA staff and the Board do an excellent job keeping SCERA operations running smoothly. I am very proud of the dedication shown by each member of the SCERA team, and our advisors, and the continued service to our members through the investment of plan assets, participation in public meetings and performance of all the necessary tasks to successfully administer the plan. I am honored to be part of this organization.

Respectfully submitted,

Julie Wyne
Chief Executive Officer

Members of the Board of Retirement

As of December 31, 2022

Chair
Brian Williams

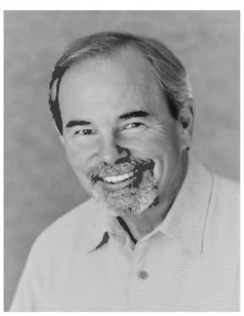
Elected by Safety Members.
Present term expires
December 31, 2024

Vice Chair
Robert Williamson

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

Trustee
Amos Eaton

Elected by General Members.
Present term expires
December 31, 2023

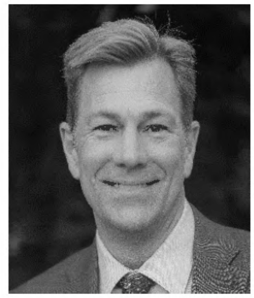


Trustee
Chris Coursey

Appointed by Board of Supervisors.
Present term expires
December 31, 2024

Trustee
Greg Jahn

Appointed by Board of Supervisors.
Present term expires
December 31, 2023



Trustee
Erick Roeser

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

Trustee
Joe Tambe

Appointed by Board of Supervisors.
Present term expires
December 31, 2023

Trustee
Tim Tuscany

Elected by Retiree Members.
Present term expires
December 31, 2023

Trustee
Travis Balzarini

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

Alternate Trustee
Neil Baker

Elected by Retiree Members.
Present term expires
December 31, 2023

Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

Sonoma County Employees' Retirement Association

California

For its Annual Comprehensive
Financial Report
for the Fiscal Year Ended

December 31, 2021

Christopher P. Morrill

Executive Director/CEO

PPCC

Public Pension Coordinating Council

Public Pension Standards Award For Funding and Administration 2021

Presented to

Sonoma County Employees' Retirement Association

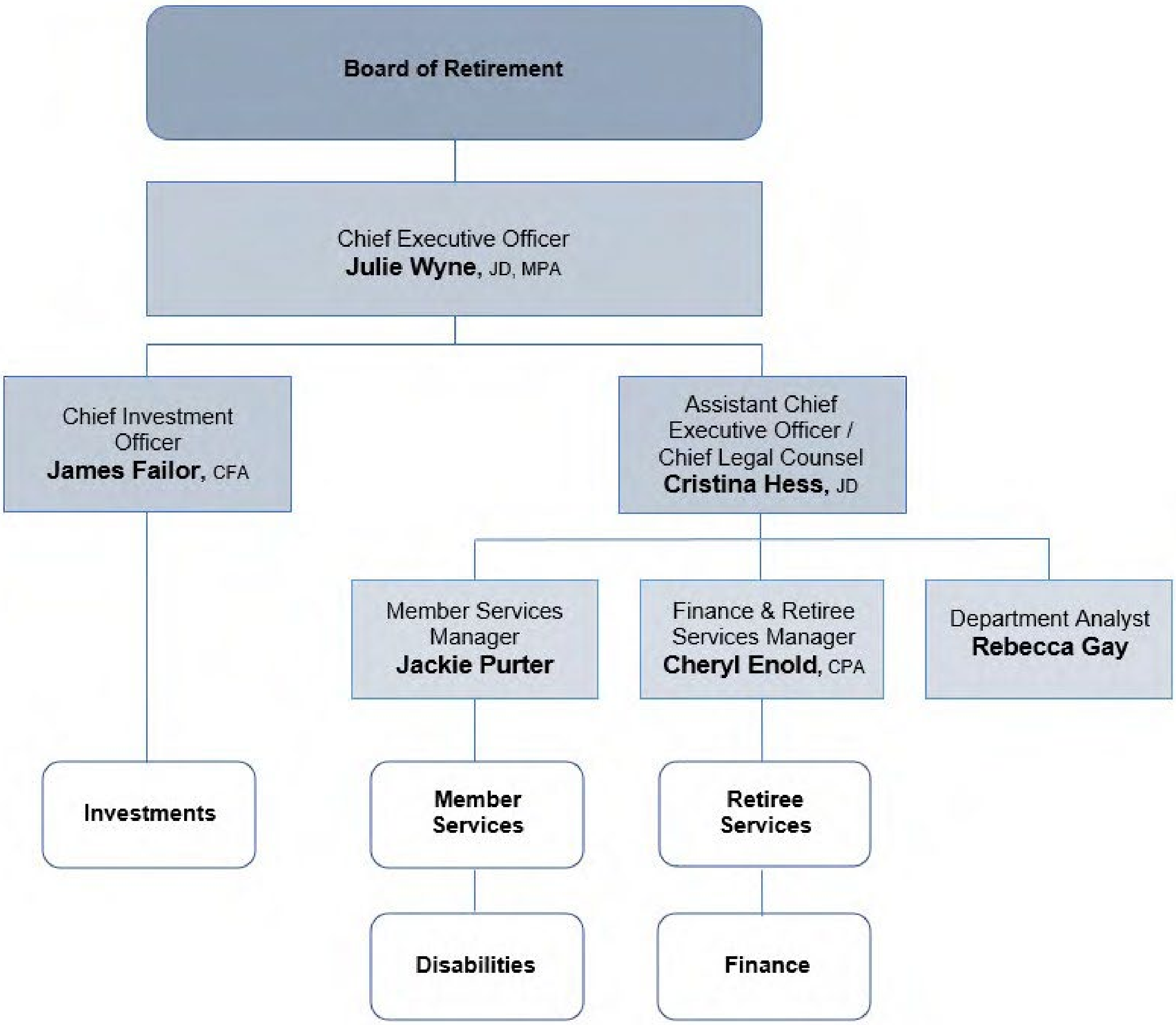
In recognition of meeting professional standards for
plan funding and administration as
set forth in the Public Pension Standards.

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
Program Administrator

Administrative Organization Chart



See page 10 for consulting services and investment managers and pages 60 and 61 for schedules of management fees and broker commissions.

List of Professional Consultants
as of December 31, 2022

Consulting Services

Actuary
Segal

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 US Equity
Jacobs Levy

Large Cap US Equity
State Street Global Advisors Index Strategy

Small Cap US Equity
Systematic Financial Management

Non-US Equity
Arrowstreet International Equity Fund
State Street Global Advisors Index Strategy

Global Equity
Dodge and Cox
State Street Global Advisors Index Strategy
State Street Global Advisors Interim Index Strategy

Real Assets
Axium Infrastructure North America Fund
Fiera Comox Agriculture Open-End Fund
IFM Global Infrastructure Fund
J.P. Morgan Strategic Property Fund
KKR Diversified Core Infrastructure Fund LP
UBS AgriVest Farmland Fund
UBS Trumbull Property Fund

Opportunistic
Davidson Kempner Special Opportunity Fund

Overlays
Parametric – Cash & Equity Overlays

Financial Section

BROWN
ARMSTRONG
CERTIAEO Pusuc ACCOUNTANTS

www.ba.cpa
661-324-4971

INDEPENDENT AUDITOR'S REPORT

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

Report on the Audit of the Financial Statements

Opinion

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 December 31, 2022, 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.

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, 2022, and the respective changes in fiduciary net position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to financial audits contained in *Government Auditing Standards,* issued by the Comptroller General of the United States. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial statements section of our report. We are required to be independent of SCERA and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management 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, and for 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.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about SCERA's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

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42001ruxtun **Avenue,** Suite 300
Bakersfie ld, CA 93309
661-324-4971

FRESNO
10 River Park Place East, Suite 208
Fresno, CA 93no
559-476-3592

STOCKTON
2423Vvest Marth Lane, Suite 202
Stockton, CA 95219
209-451-4833

Management is also responsible for maintaining a current plan instrument, including all SCERA plan amendments; administering SCERA; and determining that SCERA's transactions that are presented and disclosed in the financial statements are in conformity with the SCERA's plan provisions, including maintaining sufficient records with respect to each of the participants, **to** determine the benefits due or which may become due to such participants.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS and *Government Auditing Standards,* we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit 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, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about SCERA's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

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 GAAS, 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 Supplementary 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 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. Such 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. The 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 GAAS. In our opinion, the other supplementary information as listed in the table of contents are fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Other Information

Management is responsible for the other information included in the Annual Comprehensive Financial Report. The other information comprises the introductory, investment, actuarial, and statistical sections but does not include the basic financial statements and our auditor's report thereon. Our opinions on the basic financial statements do not cover the other information, and we do not express an opinion or any form of assurance thereon.

In connection with our audit of the basic financial statements, our responsibility is to read the other information and consider whether a material inconsistency exists between the other information and the basic financial statements, or the other information otherwise appears to be materially misstated. If, based on the work performed, we conclude that an uncorrected material misstatement of the other information exists, we are required to describe it in our report.

Report on Summarized Comparative Information

We have previously audited SCERA's December 31, 2021, financial statements, and our report dated June 8, 2022, 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, 2021, 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 31, 2023, 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 31, 2023

Sonoma County Employees' Retirement Association
433 Aviation Boulevard, Suite 100, Santa Rosa, CA 95403
Tel: (707) 565-8100 / Fax: (707) 565-8102 / www.scretire.org

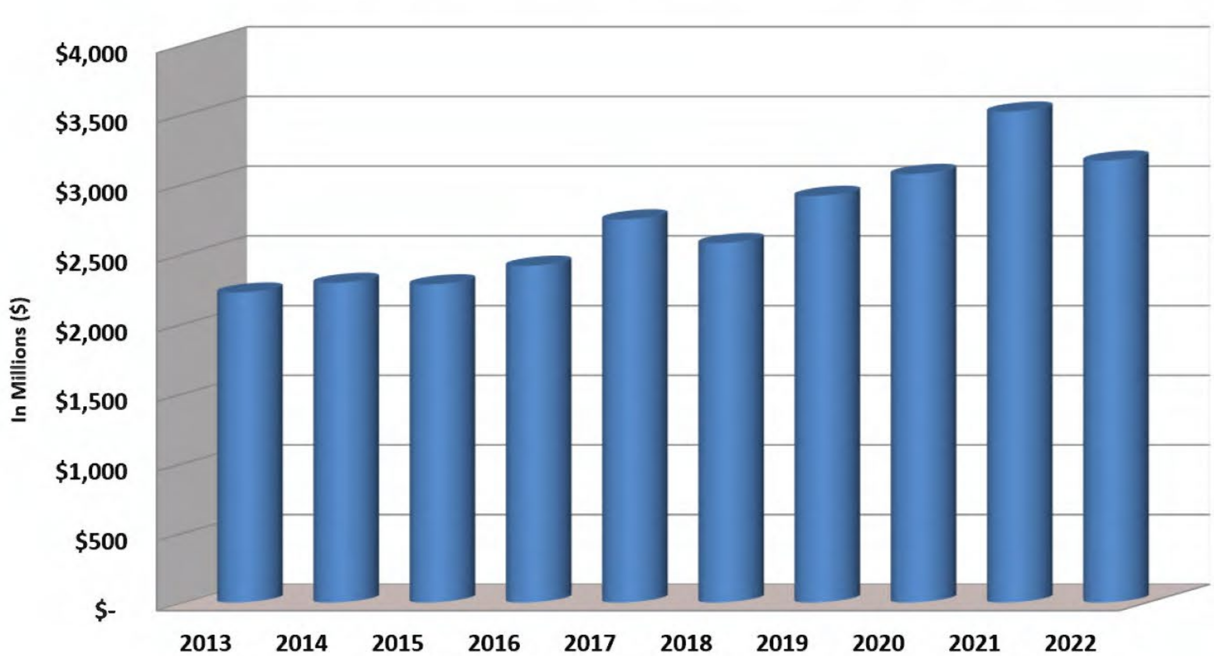
Introduction

Management is pleased to provide this discussion and analysis (MD&A) of the financial activities of the Sonoma County Employees' Retirement Association (the System, The Plan, or SCERA) for the year ended December 31, 2022. Readers are encouraged to consider the information presented here in conjunction with the information included in the Letter of Transmittal found in the Introductory Section on page 2 of this Annual Comprehensive Financial Report (ACFR).

Financial Highlights

- SCERA's fiduciary net position as of December 31, 2022, is $3,170 million. This amount reflects a decrease of 10% in fiduciary net position during 2022, primarily as a result of a net investment loss of $269 million.
- SCERA's funding objective is to meet the long-term benefit obligations through contributions and investment income. As of December 31, 2022, the date of our last actuarial valuation, the actuarial funding ratio for SCERA was 92.4%. 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 Fiduciary Net Position were used as of December 31, 2022, the funded ratio for SCERA would be approximately 88.5%.
- Revenues (additions to net position) for the year were a minus $143 million. This was comprised of $77 million of employer contributions, $49 million of member contributions, and investment losses of $269 million.
- Expenses (deductions in net position) for the year were $208 million, an increase of $9.6 million (5%) over the prior year. The majority of the increase in expenses came from a $9 million (5%) increase in pension benefit payments and refunds of contributions.

SCERA Fiduciary Net Position Restricted for Pension Benefits



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 22)
- Statement of Changes in Fiduciary Net Position (page 23)
- Notes to the Financial Statements (pages 24 through 42)

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.

Summary of Fiduciary Net Position

As of December 31,

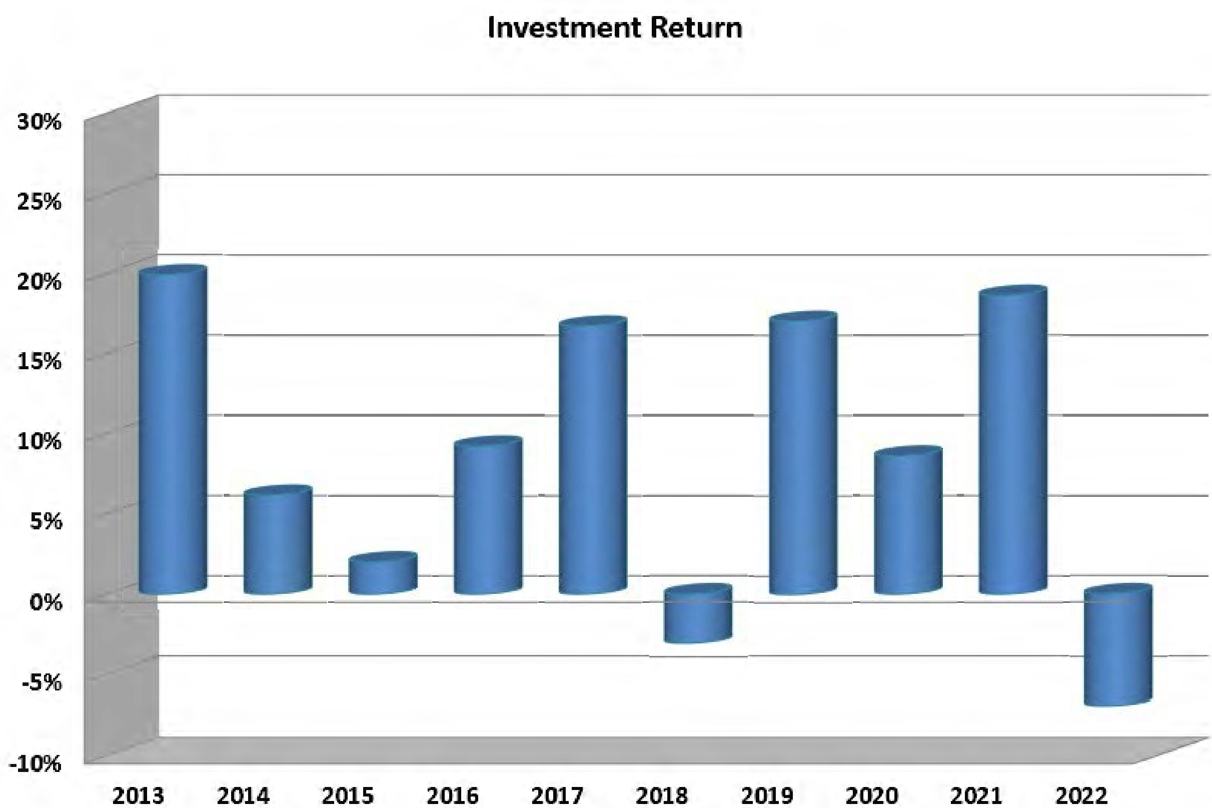
(Dollars in Thousands)	2022	2021	Increase (Decrease) Amount	% Change
Cash and Short-Term Investments	$ 137,302	$ 186,729	$ (49,427)	(26)%
Receivables	70,765	71,405	(640)	(1)%
Investments	3,141,404	3,427,149	(285,745)	(8)%
Securities Lending Collateral	87,575	80,415	7,160	9%
Prepaid Expense	71	77	(6)	(8)%
Capital Assets, net	1,806	1,892	(86)	(4)%
Total Assets	3,438,923	3,767,667	(328,744)	(9)%
Accounts Payable	3,223	3,667	(444)	(12)%
Security Purchases Payable	138,384	101,596	36,788	36%
Collateral Held for Securities Lent	87,575	80,415	7,160	9%
Unearned Revenue	40,109	60,628	(20,519)	(34)%
Total Liabilities	269,291	246,306	22,985	9%
Fiduciary Net Position Restricted for Pension Benefits	$ 3,169,632	$ 3,521,361	$ (351,729)	(10)%

The Retirement Fund as a Whole

SCERA's fiduciary net position decreased 10% in 2022 reflecting investment returns of minus 6.87%, combined with pension benefit and refund payment increases of 5%. 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 6.25%, 8.46% and 8.08%, respectively. This illustrates the importance of a long-term investment strategy incorporating structured diversification and a balanced investment portfolio as well as an asset smoothing policy. 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 unfavorable in 2022 with a return of minus 6.87%. The returns were strong in 2021 with a gain of 18.6% at the total portfolio level. SCERA's target asset allocation includes 21.5% US equities, 21.5% international equities, 17% global equities, 17% fixed income, 23% real assets and up to 3% in cash and overlay investments. SCERA's asset allocation is set based on a comprehensive investment policy. SCERA's domestic equity returns were -9.21%, 10.64% and 10.65% for the one, three and five-year periods ended December 31, 2022, respectively. SCERA's non-U.S. equity returns for the same periods were -12.09%, 4.34%, and 3.29%, respectively. SCERA's returns for fixed income over these same periods were -10.47%, -0.60% and 1.21%, respectively. Real assets produced returns of 8.42%, 10.26% and 8.65%, respectively, for the same one, three, and five-year periods. For additional information on SCERA investments see the Investment Section (pages 52 through 64).



Summary of Reserves
As of December 31,

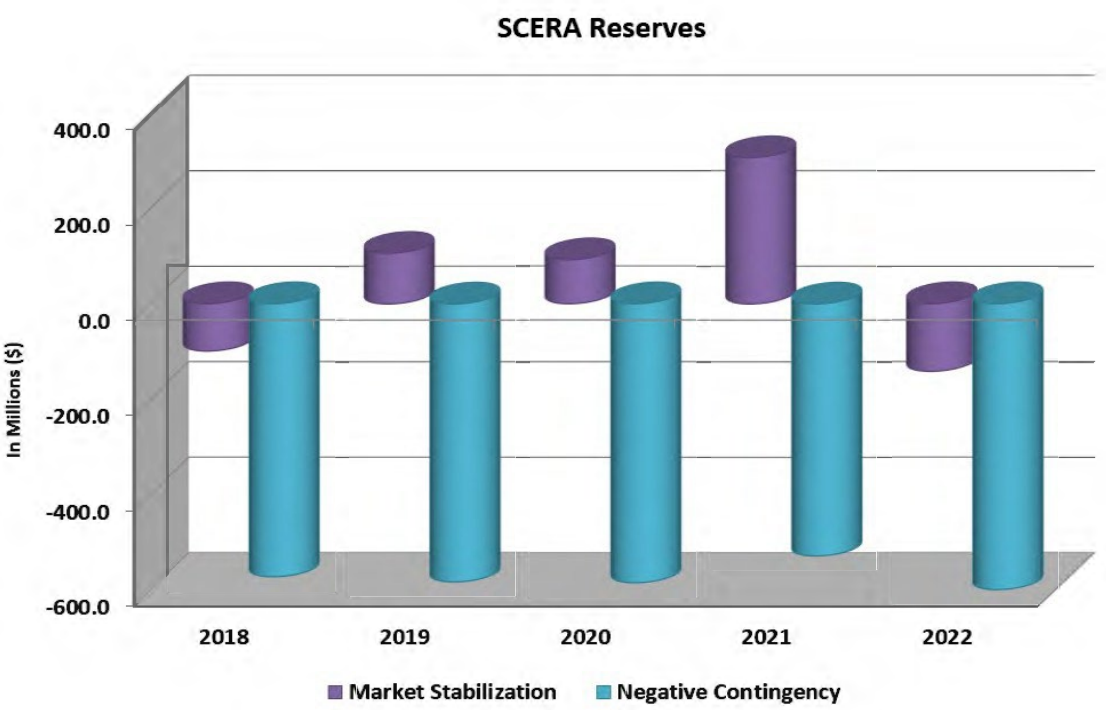
(Dollars in Thousands)	2022	2021	2020
Member Reserve	$ 610,594	$ 600,996	$ 603,510
Employer Reserve	1,057,966	997,870	944,942
Annuitant Reserve	2,215,297	2,116,287	1,986,462
Cost of Living Reserve-Current	25,354	27,917	29,808
Interest Fluctuation Reserve	-	-	-
Market Stabilization Reserve	(141,542)	305,856	91,988
Negative Contingency Reserve	(598,037)	(527,565)	(583,035)
Total	$ 3,169,632	$ 3,521,361	$ 3,073,675

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 minus 6.87% in 2022, which is lower than the assumed rate of 6.75%. The 2022 results were included in 5-year smoothing bringing the Market Stabilization Reserve to a negative $137.9 million as of December 31, 2022. 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.



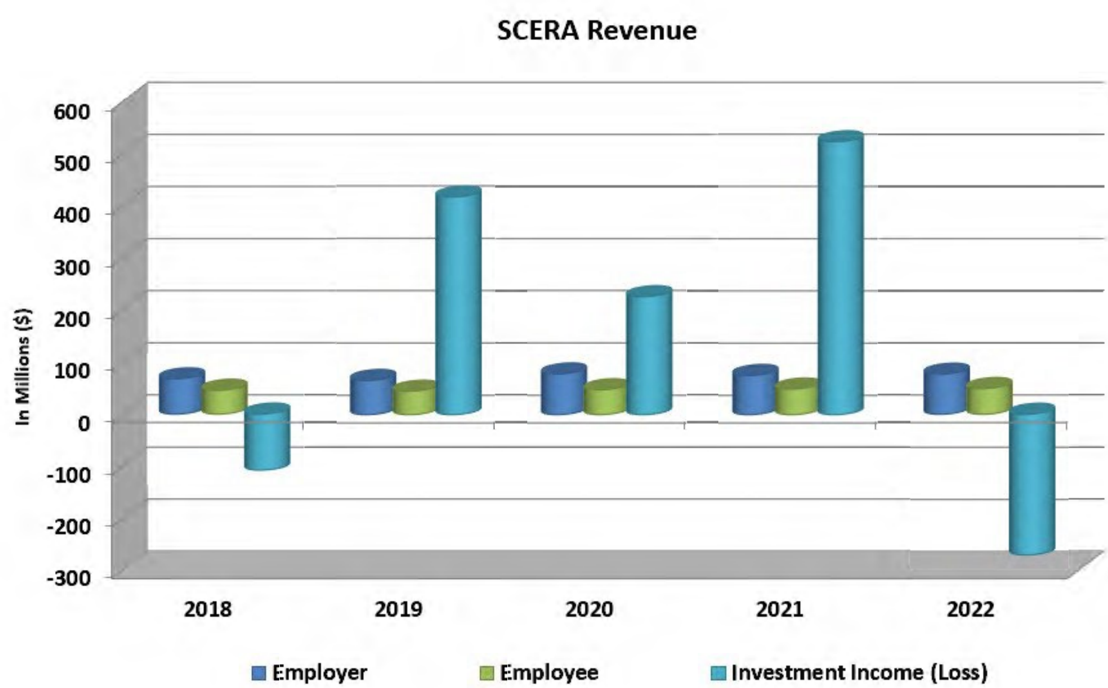
Summary of Changes in Fiduciary Net Position
For the Year Ended December 31,

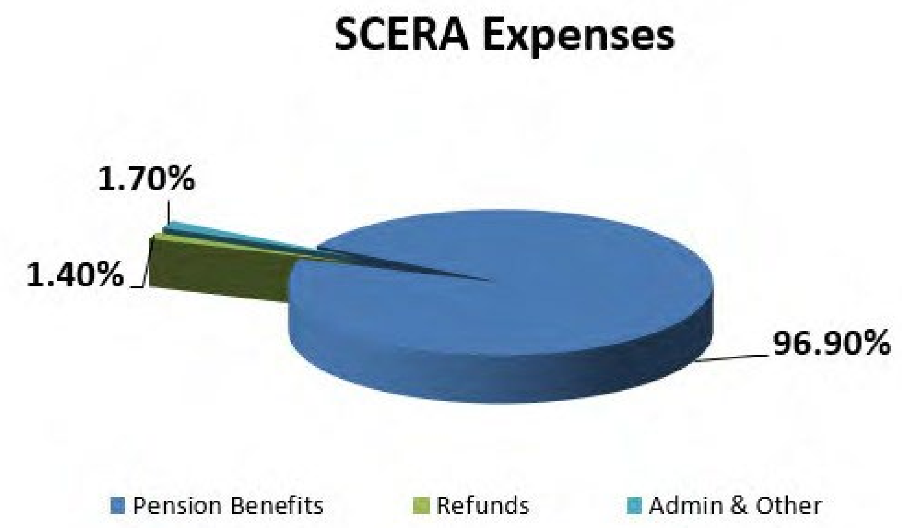
(Dollars in Thousands)	2022	2021	Increase (Decrease) Amount	% Change
Additions				
Employer Contributions	$ 76,562	$ 74,953	$ 1,609	2%
Member Contributions	49,224	49,056	168	0%
Net Investment Income	(269,425)	522,116	(791,541)	(152)%
Net Securities Lending Income	106	122	(16)	(13)%
Total Additions	(143,533)	646,247	(789,780)	(122)%
Deductions				
Pension Benefits	201,711	193,130	8,581	4%
Refunds of Contributions	2,964	2,376	588	25%
Administrative and Other Expenses	3,521	3,055	466	15%
Total Deductions	208,196	198,561	9,635	5%
Change in Fiduciary Net Position	(351,729)	447,686	(799,415)	(179)%
Fiduciary Net Position, Beginning of Year	3,521,361	3,073,675	447,686	15%
Fiduciary Net Position, End of Year	$ 3,169,632	$ 3,521,361	$ (351,729)	(10)%

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, 2022, totaled a minus $143 million. Revenues in 2022 can be attributed primarily to negative investment earnings as well as both employer and employee contributions.

The decline in the fair value of investments in 2022 was the result of interest crediting at the actuarial assumed rate and investment losses. The 2022 return on investments was a minus 6.87%, which followed the strong returns of 18.6% in 2021. The total balance of investment assets (less collateral held for securities on loan) decreased from approximately $3,427 million in 2021 to $3,414 million in 2022.





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, 2022, were $208 million, an increase of $9 million, or 5%, compared to expenses of $199 million for the year ended December 31, 2021. Pension benefits and refunds increased 5% due to an increasing number of retirees and withdrawals in 2022. Administrative and other expenses increased by 15% in 2022, made up in large part of an increase in both salary and medical exam 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,

Cheryl A. Enold, CPA
Finance and Retiree Services Manager

SCERA

Statement of Fiduciary Net Position

As of December 31,

(Dollars in Thousands)	2022	2021
Assets		
Cash and Short-Term Investments (Note D)	$ 137,302	$ 186,729
Receivables		
Employer Contributions	2,781	2,849
Interest and Dividends	5,205	5,576
Securities Sold	62,779	62,980
Total Receivables	70,765	71,405
Investments at Fair Value (Note E)		
Fixed Income	535,545	582,702
Equities	1,777,548	2,134,078
Real Assets	801,126	664,599
Opportunistic	27,185	45,770
Collateral Held for Securities Lent (Note F)	87,575	80,415
Total Investments	3,228,979	3,507,564
Prepaid Expense	71	77
Capital Assets Net of Depreciation (Note I)	1,806	1,892
Total Assets	3,438,923	3,767,667
Liabilities		
Accounts Payable (Note J)	3,223	3,667
Security Purchases Payable	138,384	101,596
Collateral Held for Securities Lent (Note F)	87,575	80,415
Unearned Revenue (Note K)	40,109	60,628
Total Liabilities	269,291	246,306
Fiduciary Net Position Restricted for Pension Benefits	$ 3,169,632	$ 3,521,361

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,

(Dollars in Thousands)		2022	2021
Additions			
Contributions (Note M)			
Employer	$	76,562	74,953
Member		49,224	49,056
Total Contributions		125,786	124,009
Investment Income			
From Investing Activities			
Net Depreciation in Fair Value of Investments		(292,657)	496,115
Investment Income		48,588	49,276
		(244,069)	545,391
Less Expenses from Investing Activities		21,944	19,288
Less Allowance for Earnings on Unearned Revenue (Note K)		3,412	3,987
Net Investing Activity Loss		(269,425)	522,116
From Securities Lending Activities			
Gross Securities Lending Income		479	117
Plus: Borrower Rebates		(360)	26
Less: Agent Fees		13	21
Net Securities Lending Income		106	122
Total Net Investment Income		(269,319)	522,238
Total Additions		**(143,533)**	**646,247**
Deductions			
Pension Benefits		201,711	193,130
Refunds of Contributions		2,964	2,376
Actuarial Study Fees		106	210
Attorney Fees		49	18
Administrative Expenses		3,366	2,827
Total Deductions		**208,196**	**198,561**
Change in Fiduciary Net Position		(351,729)	447,686
Fiduciary Net Position, Beginning of Year		3,521,361	3,073,675
Fiduciary Net Position, End of Year	**$**	**3,169,632**	**$ 3,521,361**

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

NOTES TO THE FINANCIAL STATEMENTS

(Dollars in Thousands except where indicated)

A. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The Sonoma County Employees' Retirement Association (the System, the Plan, or SCERA) 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.

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 Annual Comprehensive Financial Report as a fiduciary 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 (the Board) 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

The 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.

B. PENSION PLAN DESCRIPTION

General Information

Members include employees in a permanent position of at least half time in the Sonoma County, Superior Court of California – County of Sonoma (Superior Court), and Sonoma Valley Fire District. 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 Board, 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 which means he serves on the Board as part of his duties as Treasurer. Board trustees serve three year terms, with the exception of the County Treasurer, who serves during their tenure in office.

At December 31, 2022, the total annual employees' payroll covered by the Plan was $393 million.

At December 31, 2022, Plan membership consisted of the following:

Membership Type	2022
Retired Members and Beneficiaries	
General Members	4,529
Safety Members	1,098
Subtotal	**5,627**
Current Members	
General Members	3,433
Safety Members	670
Subtotal	**4,103**
Deferred Members	
General Members	1,419
Safety Members	269
Subtotal	**1,688**
Total General Membership	9,381
Total Safety Membership	2,037
Total Membership	**11,418**

Benefit Provisions

Vesting and Retirement Eligibility. Upon completing five years of creditable service, employees have non-revocable rights to receive benefits attributable to employer 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 recommended to the Sonoma County Board of Supervisors, on an ad hoc basis, several one-time, post-retirement cost of living adjustments (COLAs), the last of which was adopted in 2008. These COLAs have been fully funded by transfers from the Undistributed Earnings Reserve or Interest Fluctuation Reserve into the Cost of Living Reserve account. Since 2008, the Board has been unable to recommend a COLA due to negative contingency reserve balances.

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 salary earned during the last twelve months 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 partial Medicare premiums to each retired employee who is covered under Medicare Parts A and B, except for County employees covered by certain labor union contracts.

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, 2022

Cash and Short-Term Investment Funds
(held by)
(Dollars in Thousands)

	2022
County Treasury	$ 3,236
Custodian Bank	134,066
Total	$ 137,302

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. During 2022, SCERA had 18 investment managers, managing 22 individual portfolios.

Investments on December 31, 2022, consist of the following (excluding collateral held for securities lending as described in Note F):

Investments at Fair Value
(Dollars in Thousands)

	2022
Fixed Income	$ 535,545
Equities	1,777,548
Real Assets	801,126
Opportunistic	27,185
Total Investments	$ 3,141,404

The Board has established a policy for investing, specifying the following target asset strategy allocations with a minimum and maximum range for each of these asset classes. Asset targets are applied at the investment manager level, not individual Plan holdings reported in Note H.

Asset Class	Min	Target	Max
Core Plus Fixed Income	12.0%	14.0%	16.0%
Alternative Fixed Income	2.0%	3.0%	4.0%
Real Assets	20.0%	23.0%	26.0%
Domestic Equities	19.5%	21.5%	23.5%
Non-U.S. Equities	19.5%	21.5%	23.5%
Global Equities	15.0%	17.0%	19.0%
Opportunistic	0.0%	0.0%	6.0%
Total		100%	

The asset strategy allocation is incorporated into SCERA's Investment Policy Statement, which helps guide the manner in which SCERA invests. 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. Actual asset strategy allocation results are reported in the Investment Section (page 63).

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 \$3.2 million as of December 31, 2022. 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 Annual Comprehensive Financial Report for the fiscal year ended June 30, 2022.

E. DEPOSITS AND INVESTMENTS (continued)

Credit and Interest Rate Risk

Credit risk associated with SCERA's fixed income 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. A rating of N/R represents pooled funds and other securities that have not been rated by S&P and N/A represents pooled securities that do not have a set duration.

The average duration and S&P credit rating of SCERA's fixed income portfolio as of December 31, 2022 was:

Investment Type	Fair Value (Dollars in Thousands)	S&P Rating	Duration (Years)
Government Issues	$ 121,451	AA+	11.31
Agency Backed Mortgages	116,090	AA+	7.58
Bank Loans	87,140	B	4.54
Corporates	66,261	BBB	8.46
Non-Agency Backed Mortgages	63,106	AA+	6.74
Other Asset Backed	46,086	BBB	4.50
Other	33,579	N/R	N/A
Municipals	1,832	AA-	17.54
Total	$ 535,545		

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, 2022:

Securities Base Currency	Fair Value in USD (Dollars in Thousands)
Canada – CAD	$ 515
Japan – JPY	143
South Africa – ZAR	54
Brazil – BRL	49
Singapore – SGD	44
Denmark – DKK	32
Euro – EUR	24
New Zealand – NZD	22
Norway – NOK	15
Sweden – SEK	6
Australia – AUD	1
Malaysia – MYR	1
Guernsey – GBP	(323)
Total Non-USD Securities	$ 583

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. 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.

The following positions represent SCERA's exposure to derivatives as of December 31, 2022:

Investment Derivatives Summary
(Dollars in Thousands)

Derivative Type	Change in Fair Value	Fair Value	Notional
Futures	$ (23,612)	$ -	$ 54,337
Forwards	1,431	80	24,532
Options	181	-	-
Swaps – Credit Default	(263)	190	17,203
Swaps – Interest Rate	1,791	943	22,955
Total	$ (20,472)	$ 1,213	$ 119,027

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.

The following represents SCERA's exposure to derivative credit risk as of December 31, 2022:

Derivative Credit Risk Ratings Summary
(Dollars in Thousands)

S&P Credit Rating	Fair Value
A+	$ 257
A	32
BBB+	89
Total subject to credit risk	$ 378

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. Investments subject to interest rate risk as of December 31, 2022 are:

Interest Rate Risk Analysis (Dollars in Thousands)	
Derivative Type	Interest Rate Derivatives
Fair Value	$1,133
Notional	$92,364
Reference Rate	Libor - 3 months

F. SECURITIES LENDING

Securities Lending involves the owner of equites or bonds (SCERA) transferring them temporarily to a Borrower who has need of the securities for a short-term trade or financing arrangement. In return for the receipt of the securities, the Borrower transfers either other securities, bonds, or cash back to SCERA's account as collateral. State Street, as the Agent Lender on behalf of SCERA, negotiates the cost of each loan with the Borrower, who then pays the negotiated borrowing fee, typically payable after the current month's end. Revenue is then distributed to SCERA with State Street retaining a small portion for its fee.

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.

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 2022, 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.

SCERA did not impose any restrictions during 2022 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 2022. There were no losses during 2022 resulting from a default of the borrowers.

During 2022, 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, 2022, such investment pool had an average duration of 4 days and an average weighted final maturity of 15 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, 2022, SCERA had no credit risk exposure to borrowers.

As of December 31, 2022, the fair value of the securities on loan was $107.6 million. The fair value of associated collateral was $111.3 million ($87.6 million of cash collateral and $23.7 million 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), SCERA 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.

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 Statement No. 72 establishes a fair value hierarchy based on three levels 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 34.

H. FAIR VALUE MEASUREMENTS (continued)

Investments and Derivatives Measured at Fair Value

For the Year Ended December 31, 2022

INVESTMENT TYPE (Dollars in Thousands)	Total	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				
U.S. Government Securities	$ 121,451	$ -	$ 121,451	$ -
Agency Backed Mortgages	116,090	-	116,090	-
Bank Loans	87,140	-	86,121	1,019
Corporate	66,261	-	66,261	-
Non-Agency Backed Mortgages	63,106	-	63,106	-
Other	46,086	38,016	8,070	-
Other Asset Backed	33,579	-	33,579	-
Municipals	1,832	-	1,832	-
Total Fixed Income Securities	535,545	38,016	496,510	1,019
Equity Securities				
Domestic Equity	916,054	912,563	3,491	-
Non-US Equity	861,494	574,234	287,260	-
Total Equity Securities	1,777,548	1,486,797	290,751	-
Real Assets				
Real Estate	342,372	-	-	342,372
Infrastructure	284,638	-	-	284,638
U.S. Farmland	174,116	-	-	174,116
Total Real Assets	801,126	-	-	801,126
Collateral from Securities Lending	87,575	-	87,575	-
Limited Partnership (Opportunistic)	27,185	-	-	27,185
Total Investments	$ 3,228,979	$ 1,524,813	$ 874,836	$ 829,330
Derivatives				
Swaps	$ 1,133	$ -	$ 1,133	$ -
Forwards	80	80	-	-
Total Derivatives	$ 1,213	$ 80	$ 1,133	$ -

I. CAPITAL ASSETS

Depreciation and amortization expense for the year ending December 31, 2022, totaled $86,000. Capital asset activity for the year ended December 31, 2022 is as follows:

(Dollars in Thousands)	Balance 12/31/2021	Additions	Retirements	Balance 12/31/2022
Capital Assets, not being depreciated				
Land	$ 1,025	$ -	$ -	$ 1,025
Total Capital Assets, not being depreciated	1,025	-	-	1,025
Capital Assets, being depreciated				
Building	1,869	-	-	1,869
Building Remodel	1,087	-	-	1,087
Furniture & Equipment	107	-	-	107
Computer Software/Hardware	2,897	-	-	2,897
Total Capital Assets, being depreciated	5,960	-	-	5,960
Less accumulated depreciation for:				
Building	(1,033)	(64)	-	(1,097)
Building Remodel	(1,087)	-	-	(1,087)
Furniture & Equipment	(96)	(9)	-	(105)
Computer Software/Hardware	(2,877)	(13)	-	(2,890)
Total Accumulated Depreciation	(5,093)	(86)	-	(5,179)
Total Capital Assets being depreciated, net	867	(86)	-	781
Total Capital Assets, net	$ 1,892	$ (86)	$ -	$ 1,806

J. ACCOUNTS PAYABLE

Accounts payable as of December 31 consist of:

(Dollars in Thousands)	2022
Administrative Expenses	$ 179
Accrued Sick & Vacation Leave	344
Consulting & Management Fees	2,700
Total	$ 3,223

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 recognized as revenue. The unearned revenue balance was $40.1 million as of December 31, 2022.

For the year ended December 31, 2022 and going forward, these prepaid contributions held on account have received, and will continue to receive, a discount for early payment. The discount for the year ended December 31, 2022 was calculated at the annual actuarial investment earnings assumption rate of 6.75%. Contribution revenues have been increased and investment income decreased to reflect this discount. For the year ended December 31, 2022, the discount earned was $3.4 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 30th and December 31st.

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. Interest apportioned at the annual actuarial assumed investment earnings rate of 6.75%, for year ended December 31, 2022 was $245.8 million.

In February 2022, 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 covered employees are established, adopted, and may be amended by the Board (and then shall be implemented 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 maintains an actuarial funding policy that is used to calculate an actuarially determined employer contribution rate that is required to accumulate sufficient assets to pay benefits when due. The employer contribution rate is comprised of two components; a payment of the Normal Cost and a payment towards the Unfunded Actuarial Accrued Liability. As defined in the actuarial funding policy, SCERA uses the Entry Age Actuarial Cost Method to determine both the Normal Cost and the Actuarial Accrued Liability, the latter of which is then used to calculate the Unfunded Actuarial Accrued Liability.

The Entry Age Actuarial Cost Method takes the expected cost of each member's projected benefits and allocates it across the member's years of service, both past and future, as a level percentage of pay. The portion of this expected cost allocated to each year is called the Normal Cost for that year, and the portion allocated to past years is called the Actuarial Accrued Liability. For inactive and retired members there is no Normal Cost and the Actuarial Accrued Liability is the entire expected cost of the member's benefit.

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, 2022
(Dollars in Thousands)

Year Ended	Annual Required Contribution (ARC)	Contributions as a % of ARC
12/31/20	$ 70,784	109.5%
12/31/21	$ 73,142	102.5%
12/31/22	$ 70,966	107.9%

Funding Status and Method

The actuarial funding ratio as of December 31, 2022, was 92.4%. 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, 2022, was $3.3 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 annually and new estimates are made about the future.

M. CONTRIBUTIONS (continued)

SCERA's employer contribution rates pay for both the normal cost and a contribution to amortize any unfunded or over-funded actuarial accrued liabilities. The funding policy adopted by the Board is used 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/(ASSET)

GASB Statement No. 67 requires public pension plans to provide a net pension liability. The net pension liability/(asset) is measured as the total pension liability less the amount of the pension plan's fiduciary net position. The net pension liability/(asset) is an accounting measurement for financial statement report purposes. The components of net pension liability/(asset) of participating employers as of December 31, 2022 are as follows:

(Dollars in Thousands)		2022
Total Pension Liability	$	3,582,766
Less: Fiduciary Net Position		3,169,632
Net Pension Liability/(Asset)	$	413,134
Fiduciary Net Position as a Percentage of Total Pension Liability/(Asset)		88.47%

The net pension liability/(asset) of participating employers was measured as of December 31, 2022 and determined based upon the total pension liability from actuarial valuations as of December 31, 2022.

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, 2022 were based on the results of the most recent Actuarial Experience Study which covered the period from January 1, 2018 through December 31, 2020. These same assumptions were used in the December 31, 2022 actuarial valuation to project future liabilities and were used to measure the plan's actual performance against what was expected. Key methods and assumptions used in the latest actuarial valuation and the total pension liability to project future liabilities are presented below.

N. NET PENSION LIABILITY/(ASSET) (continued)

Sensitivity Analysis

In accordance with GASB Statement No. 67, changes to the total pension liability and net pension liability/(asset) must be reported as of December 31, 2022. The net pension liability/(asset) changes when there are changes in the discount rate. The following presents the net pension liability/(asset), calculated using the discount rate of 6.75 percent, as well as what the net pension liability/(asset) would be if it were calculated using a discount rate that is 1 percentage point lower (5.75) or 1 percentage point higher (7.75) than the current 6.75 percent.

SCHEDULE OF SENSITIVITY ANALYSIS
As of December 31, 2022
(Dollars in Thousands)

	1% Decrease (5.75%)	Discount Rate (6.75%)	1% Increase (7.75%)
Net Pension Liability/(Asset)	$830,956	$413,134	$66,110

Key Assumptions Used in Annual Actuarial Valuation and Total Pension Liability

Valuation Date	December 31, 2022
Actuarial Experience Study	3 Year Period Ending December 31, 2020
Actuarial Cost Method	Entry Age Normal Cost Method
Discount Rate	6.75%
Inflation Rate	2.50%
Across the Board Salary Increase	0.50%
Projected Salary Increases	General Members 3.55% - 8.00% and Safety Members 4.00% - 10.50%, varying by service, including inflation
Cost of Living Adjustments	0.00% of retirement income
Mortality Rates	General Healthy Members: Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table, increased by 5% for females. Safety Healthy Members: Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table. General Disabled Members: Pub-2010 Non-Safety Disabled Retiree Table decreased 5% for males and 10% for females. Safety Disabled Members: Pub-2010 Safety Disabled Retiree Table decreased 5% for females. All beneficiaries: Pub-2010 Contingent Survivor Table increased 5% for males and females. All mortality tables are projected generationally with the 2-dimensional mortality improvement scale MP-2020
Other Assumptions	Same as those used in the December 31, 2022 funding actuarial valuation.

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 2020 experience study are summarized in the table below:

N. NET PENSION LIABILITY/(ASSET) (continued)

Asset Class	Target	Expected Real Rate of Return (without inflation)	Expected Nominal* Rate of Return (with assumed inflation)
Large Cap Equity	16.50%	5.35%	7.85%
Small Cap Equity	5.00%	6.55%	9.05%
Developed International Equity	14.88%	6.31%	8.81%
Emerging Market Equity	6.62%	8.47%	10.97%
Core Fixed Income	16.00%	0.70%	3.20%
Global Equity	18.00%	6.28%	8.78%
Real Estate	10.00%	4.89%	7.39%
Farmland	5.00%	5.90%	8.40%
Bank Loans	3.00%	2.43%	4.93%
Infrastructure	5.00%	6.05%	8.55%
Total	100%		

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

Money-Weighted Rate of Return

For the year ended December 31, 2022, the annual money-weighted rate-of-return on pension plan investments, net of pension plan investment expense, was minus 3.99%. 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 projecting future liabilities was 6.75% for the year ended December 31, 2022.

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 6.75%. 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 sufficient 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 and they are required to be maintained by the CERL. 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 investment returns below the assumed investment rate of return.

A breakdown of the reserve accounts, which comprise the total fiduciary net position restricted for pension benefits at December 31, 2022, 2021, and 2020 are as follows:

SCHEDULE OF RESERVES

(Dollars in Thousands)	2022	2021	2020
Member Reserve	$ 610,594	$ 600,996	$ 603,510
Employer Reserve	1,057,966	997,870	944,942
Annuitant Reserve	2,215,297	2,116,287	1,986,462
Cost of Living Reserve-Current	25,354	27,917	29,808
Interest Fluctuation Reserve	-	-	-
Market Stabilization Reserve	(141,542)	305,856	91,988
Negative Contingency Reserve	(598,037)	(527,565)	(583,035)
Total Reserved for Pension Benefits	3,169,632	3,521,361	3,073,675
Total Fiduciary Net Position Restricted for Pension Benefits	$ 3,169,632	$ 3,521,361	$ 3,073,675

P. RISK MANAGEMENT

(Dollars in Thousands)

SCERA is covered by the County of Sonoma's self-insurance program for general liability and workers' compensation coverage. The below policies and coverages are as of December 31, 2022.

SCERA is covered by the County of Sonoma for general liability coverage, where the County maintains a self-insured retention of $1,000 per occurrence, with excess coverage up to $35,000 per occurrence provided through Public Risk Innovation, Solutions, and Management (PRISM) – formerly 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 per occurrence with excess coverage to statutory limits provided through participation in the PRISM 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 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), administered through PRISM. Coverages include forgery and alteration, theft, disappearance and destruction, robbery and safe burglary, and computer fraud, with limits to $15,000 and a $25 deductible.

SCERA participates in a joint-purchase property insurance program through PRISM. Coverage is "All Risk" for physical loss and damage including flood, earthquake, and terrorism. Limits of property coverage are $30,000 in aggregate per occurrence for all risk, $20,000 in aggregate per occurrence for flood, and $10,000 in aggregate per occurrence for earthquake. There is a $5,000 pooled deductible per occurrence.

SCERA is covered for cyber liability under a PRISM Cyber Liability Program through Lloyd's of London-Beazley Syndicate in the amount of $25,000 aggregate limit for all program members and $2,000 for each individual program member with a $50 deductible. SCERA is also covered under an excess layer provided through AXA XL in the amount of $10,000 aggregate limit for all program members, and $3,000 for each individual program member. Coverage includes cyber-crime liability, information security and privacy liability, privacy notification, regulatory defense, website media content liability, and data protection.

SCERA purchases separate Fiduciary Liability coverage for actual or alleged breach of fiduciary duties through Hudson Insurance Company. Limits of coverage are $10,000 annual aggregate with a $50 deductible, per insured. The Trustees pay a waiver of recourse premium of $100 dollars total. Coverage includes breach of fiduciary duty, Directors and Officers coverage, employee dishonesty coverage, and employment practices coverage.

Q. COMMITMENTS AND CONTINGENCIES

As of December 31, 2022, SCERA has invested in two different Davidson Kempner private credit strategies that are a part of SCERA's Opportunistic investments. The funds have ended their investment periods, but 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.

As of December 31, 2022, SCERA committed to invest $135 million with KKR Diversified Core Infrastructure Fund to increase Real Asset investments. During 2022, KKR called $87.8 million of the commitment and the remaining $47.2 million is expected to be called by the end of 2023.

As of December 31, 2022, SCERA committed to invest $125 million with Fiera Comox Agriculture Fund to increase Real Asset investments. During 2022, Fiera Comox called $16.2 million of the commitment and the remaining $108.8 million is expected to be called by the end of 2023.

R. DATE OF MANAGEMENT'S REVIEW

The date to which events occurring after December 31, 2022, have been evaluated for possible adjustments to the financial statements or disclosures is May 31, 2023, which is the date that the financial statements were available to be issued.

SCERA

REQUIRED SUPPLEMENTARY INFORMATION
(UNAUDITED)

SCHEDULE OF CHANGES IN NET PENSION LIABILITY/(ASSET) AND RELATED RATIOS
For the years ended December 31, 2022, 2021, 2020, 2019, and 2018

(Dollars in Thousands)	2022	2021	2020	2019	2018
Total Pension Liability					
Service cost	$ 83,637	$ 79,490	$ 76,153	$ 77,185	$ 73,316
Interest	232,291	227,230	218,710	214,052	210,532
Change of benefit terms	-	-	-	-	-
Difference between expected and actual experience	11,462	(12,334)	16,309	(37,245)	12,137
Change of assumptions	-	96,768	-	-	31,798
Benefit payments, including refunds of employee contributions	(204,675)	(195,506)	(190,092)	(182,746)	(172,562)
Net Change in Total Pension Liability	122,715	195,648	121,080	71,246	155,221
Total Pension Liability – Beginning	3,460,051	3,264,403	3,143,323	3,072,077	2,916,856
Total Pension Liability – Ending (a)	$ 3,582,766	$ 3,460,051	$ 3,264,403	$ 3,143,323	$ 3,072,077
Plan Fiduciary Net Position					
Contributions – employer	$ 76,562	$ 74,953	$ 77,506	$ 65,155	$ 67,425
Contributions – employee	49,224	49,056	47,364	44,659	45,567
Net investment income/(loss)	(269,319)	522,238	225,040	415,559	(107,078)
Benefit payments, including refunds of employee contributions	(204,675)	(195,506)	(190,092)	(182,746)	(172,562)
Administrative and other expense	(3,521)	(3,055)	(3,033)	(3,546)	(3,583)
Net Change in Plan Fiduciary Net Position	(351,729)	447,686	156,785	339,081	(170,231)
Plan Fiduciary Net Position – Beginning	3,521,361	3,073,675	2,916,890	2,577,809	2,748,040
Plan Fiduciary Net Position – Ending (b)	3,169,632	3,521,361	3,073,675	2,916,890	2,577,809
Net Pension Liability/(Asset) – Ending (a) – (b)	$ 413,134	$ (61,310)	$ 190,728	$ 226,433	$ 494,268
Plan Fiduciary net position as a percentage of the total pension liability	88.47%	101.77%	94.16%	92.80%	83.91%
Covered payroll	$ 393,355	$ 383,134	$ 373,107	$ 350,995	$ 355,558
Net Pension Liability/(Asset) as a percentage of covered payroll	105.03%	(16.00)%	51.12%	64.51%	139.01%

The schedule of changes in net pension liability/(asset) 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.

SCHEDULE OF CHANGES IN NET PENSION LIABILITY/(ASSET) AND RELATED RATIOS (continued)

For the years ended December 31, 2017, 2016, 2015, 2014, and 2013

(Dollars in Thousands)	2017	2016	2015	2014	2013
Total Pension Liability					
Service cost	$ 71,798	$ 69,834	$ 67,839	$ 70,200	$ 66,133
Interest	202,726	194,741	187,756	184,919	176,193
Change of benefit terms	-	-	-	-	-
Difference between expected and actual experience	883	5,296	(15,191)	(69,415)	8,772
Change of assumptions	-	-	93,686	-	-
Benefit payments, including refunds of employee contributions	(165,949)	(157,452)	(149,364)	(141,675)	(135,961)
Net Change in Total Pension Liability	109,458	112,419	184,726	44,029	115,137
Total Pension Liability – Beginning	2,807,398	2,694,979	2,510,253	2,466,224	2,351,087
Total Pension Liability – Ending (a)	$ 2,916,856	$ 2,807,398	$ 2,694,979	$ 2,510,253	$ 2,466,224
Plan Fiduciary Net Position					
Contributions – employer	$ 63,822	$ 63,639	$ 68,240	$ 61,179	$ 51,852
Contributions – employee	44,161	40,783	38,714	37,126	35,491
Net investment income/(loss)	394,909	189,949	34,589	117,663	370,313
Benefit payments, including refunds of employee contributions	(165,948)	(157,452)	(149,364)	(141,676)	(135,960)
Administrative and other expense	(3,732)	(4,219)	(3,526)	(3,590)	(3,850)
Net Change in Plan Fiduciary Net Position	333,212	132,700	(11,347)	70,702	317,846
Plan Fiduciary Net Position – Beginning	2,414,828	2,282,128	2,293,475	2,222,773	1,904,927
Plan Fiduciary Net Position – Ending (b)	2,748,040	2,414,828	2,282,128	2,293,475	2,222,773
Net Pension Liability/(Asset) – Ending (a) – (b)	$ 168,816	$ 392,570	$ 412,851	$ 216,778	$ 243,451
Plan fiduciary net position as a percentage of the total pension liability	94.21%	86.02%	84.68%	91.36%	90.13%
Covered payroll	$ 345,631	$ 329,078	$ 311,404	$ 299,875	$ 299,142
Net Pension Liability/(Asset) as a percentage of covered payroll	48.84%	119.29%	132.58%	72.29%	81.38%

The schedule of changes in net pension liability/(asset) 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.

SCHEDULE OF INVESTMENT RETURNS

For years 2014 through 2022

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%
2021	16.91%
2022	-3.99%

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 Employer Contributions	Actual Contributions in Relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a % of Covered Payroll
2013	$ 51,852	$ 51,852	$ -	$ 299,142*	17.33%
2014	61,179	61,179	-	299,875*	20.40%
2015	64,687	68,240	(3,553)	311,404	21.91%
2016	63,640	63,640	-	329,078	19.34%
2017	63,822	63,822	-	345,631	18.47%
2018	67,425	67,425	-	355,558	18.96%
2019	65,155	65,155	-	350,995	18.56%
2020	70,784	77,506	(6,722)	373,107	20.77%
2021	73,142	74,953	(1,811)	383,134	19.56%
2022	70,966	76,562	(5,596)	393,355	19.46%

* Covered Payroll amounts changed due to payroll system corrections.

NOTES TO REQUIRED SUPPLEMENTARY SCHEDULES

Note A – Schedule of Changes in Net Pension Liability/(Asset) and Related Ratios

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

Note B – Schedule of Investment Returns

Investment returns over longer-periods of time are created by linking the returns for each sub-period included, which are often monthly or quarterly periods. Time-weighted returns give equal weight to the returns of each sub-period. Dollar-weighted returns, by contrast, weight the return of each sub-period by the relative size of assets invested at the time."

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

The employer statutory contribution rates for the first six months of 2022 are calculated based on the December 31, 2019 actuarial valuation; the rates for the last six months of 2022 are calculated based on the December 31, 2020 valuation. Details of the actuarial methods and assumptions used for these valuations are as follows:

Valuation Date	December 31, 2020	December 31, 2019
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%	7.00%
Includes inflation at	2.75%	2.75%
Across the Board salary increase	0.50%	0.50%
Projected salary increases	2.75%, plus service-based rates	2.75%, plus service-based rates
Cost of living adjustments	None	None
Mortality rates	Various rates based on RP-2014 Headcount-Weighted Healthy or Disabled Annuitant Tables projected with 2-dimensional mortality improvement scale MP-2017.	Various rates based on RP-2014 Headcount-Weighted Healthy or Disabled Annuitant Tables projected with 2-dimensional mortality improvement scale MP-2017.

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, 2020 for the period of January 1, 2018 through December 31, 2020. Based on the results of this study, the Board adopted new economic and non-economic assumptions effective with the December 31, 2021 valuation for calculating future projected liability and contribution rates. The significant changes included the following:

Changes in Actuarial Assumptions

	2020 Experience Study	2017 Experience Study	Change
Investment Return	6.75%	7.00%	(0.25)%
Assumed Inflation	2.50%	2.75%	(0.25)%
Payroll Growth	3.00%	3.25%	(0.25)%
Mortality Rates	Various rates based on Pub-2010 Amount-Weighted Healthy or Disabled Above Median Mortality Tables, Projected generationally with 2-dimensional mortality improvement scale MP-2020, Based on Respective Population	Various rates based on RP-2014 Headcount-Weighted Healthy or Disabled Annuitant Tables, Projected with 2-dimensional mortality improvement scale MP-2017.	

These new assumptions will be used to determine the Actuarially Determined Contributions effective in fiscal year 2024-2025.

ADMINISTRATIVE EXPENSES

For the years ended December 31,

(Dollars in Thousands)	2022	2021
Personnel Services		
Salaries, Wages and Benefits	$ 2,256	$ 2,012
Office Expenses		
Equipment & Software Maintenance	104	131
Postage	38	56
Office Supplies	51	51
Printing and Stationary	25	29
Telephone Charges	14	19
Total Office Expenses	232	286
Other Services and Charges		
Disability Medical Fees	375	137
Data Processing Charges	89	88
Fiduciary Insurance	98	77
Audit Fees	61	61
Transportation, Travel and Training	65	21
Professional Services	25	21
County Services	22	20
Memberships	27	16
Actuarial Retainer Fees	12	12
Disability Hearing Officer Fees	28	10
Total Other Services and Charges	802	463
Building Expenses		
Depreciation	31	34
All Other Building Expenses	37	24
Utilities	11	10
Total Building Expenses	79	68
Depreciation/Amortization – Capital Assets	22	23
Less: Retiree Medical Billing Revenues	(25)	(25)
Total Administrative Expenses	$ 3,366	$ 2,827

FEES AND OTHER INVESTMENT EXPENSES

For the years ended December 31,

(Dollars in Thousands)		2022		2021
Investment Manager Fees				
Equity Managers	$	11,587	$	9,627
Real Assets Managers		5,786		4,732
Fixed Income Managers		1,581		1,630
Opportunistic Managers		146		295
Asset Allocation		-		529
Total Investment Manager Fees		19,100		16,813
Other Investment Expense				
Investment Custodian		1,420		1,121
Investment Travel & Staff Salary		621		600
Cash Overlay Manager		355		332
Investment Consultant		355		345
Investment Legal Counsel		56		29
Other Investment Services		37		21
Bloomberg Service		-		27
Total Other Investment Expense		2,844		2,475
Total Fees and Other Investment Expenses[(A)]	**$**	**21,944**	$	**19,288**

(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 $3.4 million and $4.0 million for the years ending December 31, 2022 and 2021, respectively (Please see Note K to the financial statements).

SCHEDULE OF PAYMENTS TO CONSULTANTS

For the years ended December 31,

(Dollars in Thousands)		2022		2021
Audit				
Brown Armstrong Accountancy Corporation	$	61	$	61
Total		61		61
Legal Counsel (External)				
Mayer Brown, LLP		56		29
County of Sonoma, County Counsel		46		15
Nossaman, LLP		-		1
Ice Miller, LLP		3		2
Total		105		47
Actuarial				
Segal Consulting		106		210
Total		106		210
Total Payments to Consultants	**$**	**272**	**$**	**318**

Investment Section

AON

April 25, 2023

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

Dear Members of the Board:

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, 2022.

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 61% to Equities, 19% to Fixed Income, and 20% to Real Assets. However, the following action altered the allocation throughout the year:

- Funded an additional infrastructure manager (decision was made in 2021), which increased the policy allocation to Real Assets from 20% to 23% with a commensurate policy allocation reduction from Global Equities (18% to 17%) and Core Fixed Income (from 16% to 14%)

The Fund also held an allocation to an Equity Insurance Risk Premium strategy, which held a notional value equivalent to 3% of total assets. This strategy was wound down and eventually removed during the year.

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	**12/31/2021**	**12/31/2022**
U.S. Equities	*21.5%*	*21.5%*
Non-U.S. Equities	*21.5*	*21.5*
Global Equities	*18.0*	*17.0*
Equities	**61.0%**	**60.0%**
Core Fixed Income	*16.0%*	*14.0%*
Alternative Fixed Income	*3.0*	*3.0*
Fixed Income	**19.0%**	**17.0%**
Real Assets[2]	**20.0%**	**23.0%**
Opportunistic Allocation	**n/a**	**n/a**
Overlay Strategies[1]	**3.0%**	**n/a**
Total Fund	***100.0"/4***	***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, ii is excluded from the policy allocations that total 100%.
'During calendar year 2021, the Retirement Board approved a 3% increase in the allocation to Farmland. Fiera Comox was identified for this assignment and once the strategy is more than half funded, the Real Assets policy allocation will increase to 26% with the funding expected to come from Global Equities (17% to 16%) and Core Fixed Income (14% to 12%).

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

AON

Investment Managers

The SCERA Fund's roster of investment management accounts underwent the following changes during 2022:

- Partially funded the KKR Diversified Core Infrastructure Fund, decision was made in 2021. The remaining capital commitment expected to be called in 2023.
- Approved a $125 million commitment to the Fiera Comox Global Agriculture Fund. Partial capital was called in 2022, with a majority of the remaining capital commitment expected to be called in 2023.
- Terminated the Parametric equity insurance risk premium overlay strategy.

Capital Markets

The major global capital markets ended calendar-year 2022 with challenging results. The U.S. stock market, as measured by the Russell 3000 Index, returned -19.2% in 2022. The non-U.S. stock market, as measured by the MSCI All Country World IMI ex-U.S. (Net with USA Gross), returned -16.6% over the same period. In the US stock market, value stocks outperformed growth stocks within both the large cap and small cap sub-universe. Across the capitalization spectrum, large-cap stocks outperformed small-cap stocks. The fixed income market, as measured by the Bloomberg U.S. Aggregate Bond Index, returned -13.0% in 2022. Meanwhile, the real estate market returned +6.6%[3], as measured by the NCREIF ODCE Index.

[3]Due to the one-month lag reporting of Real Assets, this return may not reconcile with other SCERA Fund performance shown in the ACFR.

Fund Performance

Based on fair market value, the SCERA Fund (net-of-fees[1]) finished 2022 with a -6.2% return for the year, outperforming the policy portfolio return of -10.5%. The Fund's annualized returns over the past three- and five-year periods were +5.7% and +5.8%, respectively. The Fund produced an annualized return of +8.0% over the ten-year period ending December 2022. For the 30-year period, the Fund returned +7.4%, annualized. The Plan and benchmark returns reflect that the market values for Real Asset and Opportunistic investments are booked with a one-month lag. We continue to believe the Fund is positioned to generate strong investment results over the long-term.

Sincerely,

John J. Lee
Partner

Chris Behrns
Associate Partner

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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 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 (the Plan). 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 the Plan 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 the Plan 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 OPERATIONS

Program Developments

2022 was a transition year as SCERA emerged from the COVID-19 pandemic restrictions. At the beginning of the year the Retirement Board was meeting virtually, via video conference, and by the end of the year they had moved substantially toward meeting in-person. Similarly, the investment team transitioned to more in-person meetings. Due diligence on the Plan's investment managers is performed by both our investment consultant, Aon, and SCERA's investment staff, typically on-site once every three years. During 2022, SCERA conducted eight due diligence meetings with all but the first being in-person and on-site.

The Plan's consultant performs an Asset-Liability (A-L) study for SCERA every three years to reassess the policy asset allocation and study potential adjustments. The 2020 A-L study concluded that the Plan's asset allocation continues to be appropriate, but additional illiquidity could be taken if the Board believed they would be adequately compensated. The result was an increase to both Infrastructure and Farmland policy weights, from 5% to 8%, respectively. Each 3% increase is being offset by a decrease of 2% in Fixed income and 1% in Global Equities. We believe this asset allocation shift will keep the overall risk of the Plan's portfolio approximately unchanged while raising the expected return somewhat from the illiquidity premium.

Program Developments (continued)

To implement the increased allocation to Infrastructure, SCERA committed $135 million in 2021 to the KKR Diversified Core Infrastructure Fund (DCIF). By the end of 2022, most of this commitment had been called and invested, and by March of 2023 the entire commitment had been called. In 2022, the Board selected the Fiera Comox Global Agriculture Open-End Fund as the Plan's second Farmland manager and committed $125 million to the Fund. By the end of 2022, Fiera Comox had begun calling capital and most of the commitment is expected to be called in 2023. The Fiera Comox fund should be complementary to the UBS Farmland Fund, the Plan's other Farmland manager. The Fiera Comox fund invests globally and participates in farmland operations, whereas the UBS fund invests only in US farmland and leases its farmland to operating farmers. In addition, the Fiera Comox fund has a more substantial allocation to permanent cropland farms while the UBS fund has a more modest exposure. Permanent cropland, such as that used for trees and vines, is generally less risk-averse than annual cropland, but is also higher returning. Once these expanded allocations are fully implemented the policy weight for Real Assets, which includes Real Estate, Infrastructure, and Farmland, will total 26% of Plan assets.

SCERA's Opportunistic Allocation has a policy range of 0% to 6% and is primarily intended for outsized opportunities resulting from significant market dislocations which, by definition, are viewed as transitory. The other possible use for the allocation is as an incubator for new asset classes or strategies, essentially providing SCERA the opportunity to house an innovative nontraditional investment before promoting it to a long-term strategic allocation. There were no new Opportunistic investments identified in 2022, but SCERA continued to hold two such investments, Davidson Kempner (DK) Special Opportunity Funds (SOF) III and IV. Both DK Funds are nearing the end of their life and have begun their harvesting period, returning capital to investors. DK SOF III and IV were appraised as of 2022 year-end at $8.0 million and $19.2 million, respectively.

SCERA had no managers on "Watch" during 2022, though the Board did elect to discontinue one strategy in late 2022. The Parametric Defensive Equity account, more generically referred to as an Equity Risk Insurance Premium strategy, was terminated in late 2022 after approximately five and a half years. The strategy harvests the insurance premium the market usually offers to protect against sharp spikes, up or down, in the stock market. This insurance premium is captured by selling S&P 500 Index options. The account was run as an overlay on the Plan's US Equity exposure and had a notional exposure of 3% of Plan assets. Performance had been disappointing and, importantly, the pattern of performance (i.e., the frequency of underperforming quarters) caused concerns about the future size and dependability of this insurance premium.

SCERA's concern was not with Parametric or their ability to implement the strategy, but rather with what the market would offer as an insurance premium. We continue to have confidence in Parametric who remains as the Plan's cash overlay manager. In this assignment the manager securitizes Plan cash, using derivatives, to obtain stock and bond economic exposure for the Plan's cash. The Plan holds cash to meet obligations, such as retiree payroll and expenses, but cash is typically considered a lower-returning asset class. The cash overlay program eliminates the cash drag of this lower returning asset.

Throughout 2022, SCERA continued to hold an interim management strategy managed by State Street Global Markets (SSGM). This account was previously funded with assets from a terminated Global Equity account. When SSGM received discretion over the assets, they traded a small portion of the portfolio to reduce the tracking error versus the account's Global Equity benchmark. The intent is to capture Global Equity market performance, similar to an index fund, for an intervening period while curtailing transaction costs by minimizing trading. Capital from this account is being used in the interim to fund commitments, such as those for KKR and Fiera Comox. Once these commitments are fully funded, in late 2023 or 2024, we expect the residual in this account to be transitioned to the Plan's Global Equity Rule of Law (ROL) Index strategy with State Street Global Advisors (SSGA).

Program Developments (continued)

As is typical, the Board received several educational presentations in 2022, including the use of leverage across the Plan's investment program, the risk of inflation and rising interest rates, and possible uses of the Opportunistic Allocation. In addition, the Board received an educational presentation on crypto currencies though the Plan is not an investor in such assets. The Board also reviews the structure of managers and strategies within asset classes periodically. In 2022, the Board reviewed the structure of the Real Estate portfolio and, after deliberation, elected to leave the structure unchanged at this time. Similarly, SCERA reviewed the structure of the Fixed Income portfolio given the intent to reduce its weight as we expand the allocations to Infrastructure and Farmland. After discussion, no changes were made to the three-manager Core Plus fixed income portfolio, nor the Alternative Fixed Income bank loan portfolio.

SCERA reviewed its securities lending (SL) program in 2022. This program has generated declining revenues over recent years due to changing dynamics within the SL industry, as well as SCERA's shrinking separate account equity portfolios from which to lend. The Board approved a project by the Plan's investment consultant to evaluate the securities lending program and recommend possible enhancements. That report is due in early 2023.

In early 2021, after several presentations by experts and after having heard from the Plan's consultant and staff, the Board elected to adopt a Rule of Law (ROL) investment guideline. This guideline is implemented by prohibiting the investment in countries with poor ROL scores according to the World Justice Project (WJP), a spinoff from the American Bar Association. The Board considers this guideline a long-term risk mitigation effort as they believe it's prudent to avoid investing in countries where our claim on assets, or the capital generated by those assets, is tenuous, and where the legal system may provide inadequate protection for stakeholders. The WJP updates their ROL scores periodically and the latest scores were made available in late 2022. Subsequently, SCERA's impacted managers were given an updated list of excluded countries. Practically speaking, the ROL guideline means we have eliminated more than half, but not all, of our exposure to the countries in question. SCERA's investments in commingled vehicles will continue to possess these exposures where present, as we accept the fund's investment guidelines "as is" when entering into these kinds of funds. As a result, when Russia invaded Ukraine in February 2022, we had no exposure to Russia in SCERA's separately managed accounts, due to the ROL guideline, but, but we did have a small exposure (approximately 0.1% of Plan assets) through commingled funds.

On the staffing side, Senior Investment Officer Steve Marsh retired in late 2022 after ten years with SCERA. SCERA wishes him well in retirement and appreciate his many and substantial contributions. Our search for a new Investment Officer resulted in the hiring of Mickey Nguyen. Mickey, who is a Chartered Financial Analyst (CFA), joined SCERA in late 2022, bringing over a decade of experience as a hedge fund equity analyst. Ms. Nguyen reports to Chief Investment Officer Jim Failor. SCERA is excited to have her on-board.

Investment Results

For calendar year 2022, the Plan's investment portfolio returned -6.9% gross-of-fees. With annual investment management fees of approximately 0.5%, this equates to a return of -7.4% net-of-fees, a return considerably below the current Actuarial Assumed Rate-of-Return (ROR) of 6.75%.

In stark contrast to the 2021 calendar year result when financial markets delivered outsized positive returns, the persistent downward trend across most asset classes in 2022 weighed on trailing 3- and 5-year Plan returns. Those returns were +5.8% net-of-fees measured over both time periods, which is below the assumed ROR at the time of 6.8% and 6.95%, respectively. As individual calendar year returns can be volatile as witnessed most recently, interim progress is often monitored by using "smoothed" five-year returns. SCERA's performance over twenty years is 8.1% gross-of-fees, which after-fees is in-line with the annual average assumed rate of return of 7.5%. Given the perpetual nature of the Plan's liabilities, this long-term return is arguably the most relevant when evaluating the Plan's financial performance.

Market Commentary

After the previous year in which financial markets were riding high on the theme of post-COVID reopening economies, low interest rates and unprecedented monetary and fiscal stimulus, 2022 represented a reversal in this paradigm as inflation began to infiltrate multiple segments of the world economy. Partly fed by demand-driven forces due to strong consumer spending and easy credit, the spike in inflation became even more troubling with Russia's invasion of Ukraine. The resulting disruption in oil and natural gas supplies and crucial agricultural commodities sent long-lasting and far-reaching shockwaves that central banks and governments are still coping with today.

As a result of this price instability, the Federal Reserve accelerated its plans to raise interest rates starting in March 2022. This hawkish stance led to seven consecutive rate hikes that totaled 425 basis points for the year. Asset prices plunged in response with equities delivering their worst performance since the Great Financial Crisis of 2008-2009 and the Russell 3000 dropping 19% for the year. Both stocks and bonds fell into bear market territory amid challenging levels of volatility, leaving few places to hide across the investment landscape. Some aspects of 2022 drew comparisons to the pattern of high inflation, aggressive Fed policy, energy shocks and geopolitical risks of the late 1970's and early 1980's.

However, economic reports were a mixed bag pointing to slowing growth at times but strength in other areas. As the yield curve began to invert by mid-year, expectations seemed to focus on the timing and depth of a recession. But economic indicators maintained resilience despite the Fed's resolve to break inflation. Particularly, unemployment rates remained quite low while consumer spending registered healthy levels. As the end of year approached, the question was what kind of "landing" lies ahead.

Non-US equity markets did not fare any better, also ending the year down 14.5% for the MSCI EAFE, a non-US developed markets index, and down 20% for the MSCI Emerging Markets index. Countries around the globe were experiencing the negative effects of the dramatic rise in interest rates. China's equity market continued to slide even further from an already dismal 2021, dropping over 28% more in 2022, as measured by the CSI 300 Index, before finding some footing by year-end.

The Plan's US Equity managers, in aggregate, returned -9.2%, a very strong relative return that significantly outperformed the Russell 3000 benchmark return of -19.2%. The key factor contributing to the relative outperformance was the steady alpha generation by the Plan's two active US equity managers, Jacobs Levy and Systematic, and their tilt toward "Value" stocks which bested "Growth" stocks for the period.

The Plan's Non-US Equity managers delivered an aggregate return of -12.1% for the year versus the asset class benchmark of -16.6%, outperforming by a healthy margin though by less than the Plan's US Equity managers. The 130/30 (partial short extension) strategy managed by Arrowstreet delivered strong benchmark relative outperformance of 900 basis points. Additionally, the Plan's ROL guideline, which minimizes the exposure to countries with a poor ROL record, advantageously positioned the passive Non-US index strategy, resulting in a modestly less negative return than the benchmark.

The Plan's Global Equity portfolio managers invest in both US and non-US stocks and the asset class benchmark delivered a return of -18.2%, in a complete turnaround from 2021's 18.5% return. SCERA's Global Equity managers in aggregate produced a return of -11.2%, outperforming the benchmark by a healthy 700 basis points. Similar to the passive Non-US Equity portion of the portfolio, the Global Equity ROL Index strategy modestly outperformed its benchmark. The main contributor to the relative outperformance of the Global Equity portfolio was the performance of Dodge & Cox whose superior stock selection and sector positioning in energy, healthcare and real estate limited the overall losses experienced in other sectors for the year.

In Fixed Income, the Plan's managers produced a return of -10.5% for 2022 compared to the Bloomberg US Aggregate benchmark return of -13%. The majority of assets within the Fixed Income portfolio are dedicated to three "Core Plus" mandates managed by Reams, DoubleLine, and PIMCO. Performance across these managers was consistent, as all three outperformed the benchmark by a modest margin on a gross-of-fees basis. Supplementing the Core Plus Fixed Income

Market Commentary (continued)

assets is an allocation to Alternative Fixed Income, which is comprised of a bank loan mandate managed by Guggenheim. This manager's performance beat its Credit Suisse Leveraged Loan benchmark and was accretive to the overall Fixed Income portfolio. Bank loans, in general, only declined 1% on the year, soundly outperforming the broader Fixed Income asset class benchmark. Bank loans benefited from their floating rate structure in a rising interest rate environment.

The Plan's Real Assets portfolio is composed of Real Estate, Farmland, and Infrastructure. Combined, the Real Assets portfolio delivered a strong 8.4% 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. Both funds underperformed the core real estate benchmark in 2022, posting 4.6% and 5.9% returns, respectively, resulting in the Real Estate asset class returning 5.2% and trailing the NCREIF ODCE benchmark return of 7.5%. Performance was negatively impacted in the second half of the year by the lagged effect of private real estate valuations, most notably in Office and Industrial properties.

Farmland was included in the Real Assets portfolio to provide an uncorrelated source of stable returns with a strong income component. In late 2022, we began funding the Plan's second Farmland investment, the Fiera Comox Global Agriculture Open-End Fund. Since no year-end performance was available for Fiera Comox, the Plan's Farmland return for the full year incorporates only the investment in the UBS AgriVest Farmland Fund (AFF) which delivered a healthy calendar-year return of 7.1%, but which underperformed the Core Farmland Index benchmark by 5.9%. The performance gap can be largely attributed to the continual price appreciation in the Corn Belt region where AFF is underexposed due to stretched valuations.

The Plan also targets an 8% policy weight to Infrastructure through its investment in the IFM Global Infrastructure Fund, the Axium North America II Fund, and the recently incepted KKR Diversified Core Infrastructure Fund. All funds delivered a positive return in 2022, a feat indicative of the managers' focus on asset categories that provide inflation and recessionary protection. IFM and Axium posted returns of 8.2% and 34.3%, respectively while the Infrastructure benchmark returned 11.5%. The benchmark is an "Inflation Plus" construct based on the consumer price index. We began funding the KKR account in 2022 so a twelve-month return was not available as of year-end.

The Plan's Opportunistic Allocation currently includes two distressed credit funds managed by Davidson Kempner. Both funds have completed their investment period and are now in the "harvesting" stage, where fund investments are realized, and capital is returned to investors. Market prices are not readily available, but appraisals provide valuation estimates which currently indicate a combined 5 year annualized Internal Rate of Return (which adjusts for the timing of cash flows) estimated at 9.7%. This is substantially in excess of the Plan's current actuarial assumed ROR and the Plan's Target Policy return, its official benchmark.

The Plan was able to weather the 2022 turbulence in a manner that demonstrated the advantages of diversification in SCERA's investment holdings. As a result, the long-term returns have remained at or near the expected rates of return over 10- and 20-year time horizons.

INVESTMENT RESULTS BASED ON FAIR VALUE

For the year ended December 31, 2022*

Account	Current Year	3 Year	5 Year
Fixed Income			
DoubleLine – Core Plus	-12.64%	2.73%	0.05%
Guggenheim Bank Loan Fund	-0.26%	2.75%	3.57%
PIMCO – Core Plus	-12.76%	-2.12%	0.46%
Reams Asset Management – Core Plus	-12.00%	0.79%	2.53%
Benchmark: BB U.S. Aggregate Bond Index	-13.01%	-2.71%	0.02%
Total Fixed Income	-10.47%	-0.60%	1.217%
Real Assets			
JP Morgan Strategic Property Fund	4.64%	8.69%	7.70%
UBS Trumbull Property Fund	5.91%	5.72%	4.35%
Benchmark: NCREIF ODCE	7.47%	9.93%	8.68%
UBS AgriVest	7.14%	7.07%	6.11%
Fiera Comox Global Agricultural Fund – Funded Oct 2022	N/A	N/A	N/A
Benchmark: Core Farmland Index 1 Mo. Lag (custom)	13.00%	9.09%	7.61%
AXINFRA NA LP	34.31%	24.81%	N/A
IFM Global Infrastructure Fund	8.18%	9.40%	11.67%
KKR Diversified Core Infrastructure – Funded April 2022	N/A	N/A	N/A
Benchmark: CPI + 5% Year	11.47%	10.05%	8.90%
Total Real Assets	8.42%	10.26%	8.65%
Domestic Equity			
Jacobs Levy: Broad Mandate Equity	0.96%	18.33%	16.13%
Benchmark: Russell 3000	-19.21%	7.07%	8.79%
SSGA: Russell 1000 Index Fund	-19.17%	7.34%	N/A
Benchmark: Russell 1000	-19.13	7.35%	N/A
Systematic Financial Mgmt: Small Cap Value	-9.51	8.11%	6.39%
Benchmark: Russell 2000 Blended	-20.44%	3.10%	4.13%
Total Domestic Equity	-9.21%	10.64%	10.65%
Non-U.S. Equity			
Arrowstreet Capital	-7.58%	10.57%	8.11%
SSGA: MSCI ACWI Ex US IMI Index Fund	-15.22%	2.18%	2.15%
Benchmark: MSCI ACWI Ex US IMI (net)	-16.58%	0.20%	0.85%
Total Non-U.S. Equity	-12.09%	4.34%	3.29%
Global Equity			
SSGA ACWI IMI ROL Index Fund	-17.68%	N/A	N/A
SSGA Interim Management	-16.51%	N/A	N/A
Benchmark: MSCI ACWI IMI (net) w/USA Gross	-18.17%	N/A	N/A
Dodge & Cox	-6.54%	5.98%	6.59%
Benchmark: MSCI Global Equity Blended II	-18.17%	4.18%	5.27%
Total Global Equity	-11.17%	3.62%	3.83%
Opportunistic			
Davidson Kempner Funds	6.31%	9.73%	9.70%
Benchmark: Custom	-10.43%	4.38%	5.36%
Total Fund	**-6.87%**	**6.26%**	**6.25%**

* 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 years ended December 31,

(Dollars in Thousands)	2022	2021
Fixed Income		
PIMCO	$ 436	$ 460
Guggenheim	451	447
DoubleLine	431	449
Reams Asset Management	263	274
Total Fixed Income	**1,581**	**1,630**
Real Assets		
UBS AgriVest	1,541	1,396
JP Morgan	1,825	1,359
IFM Global	835	746
UBS Realty	775	672
Axium	579	559
KKR	216	-
Fiera Comox	15	-
Total Real Assets	**5,786**	**4,732**
Domestic Equity		
Jacobs Levy	1,954	1,118
Systematic Financial Management	706	873
State Street Global Advisors (Russell 1000)	66	48
Total Domestic Equity	**2,726**	**2,039**
Non-U.S. Equity		
Arrowstreet Capital	7,297	5,976
State Street Global Advisors (SSGA Ex-US ROL)	223	233
Total Non-U.S. Equity	**7,520**	**6,209**
Global Equity		
Dodge & Cox	1,105	1,108
State Street Global Advisors (SSGA ROL & Interim)	236	20
Hexavest	-	251
Total Global Equity	**1,341**	**1,379**
Asset Allocation		
Grantham, Mayo, Van Otterloo and Company	-	529
Total Asset Allocation	**-**	**529**
Opportunistic		
Davidson Kempner	146	295
Total Opportunistic	**146**	**295**
Total Investment Manager Fees	**19,100**	**16,813**
Other Investment Expenses		
Investment Custodians	1,420	1,121
Investment Travel and Staff Salary	621	600
Cash Overlay Manager	355	332
Investment Consultant	355	345
Investment Legal Counsel	56	29
Bloomberg Service	-	27
Other Investment Services	37	21
Total Other Investment Expenses	**2,844**	**2,475**
Total Fees/Other Investment Expenses	**$ 21,944**	**$ 19,288**

SCHEDULE OF BROKER COMMISSIONS

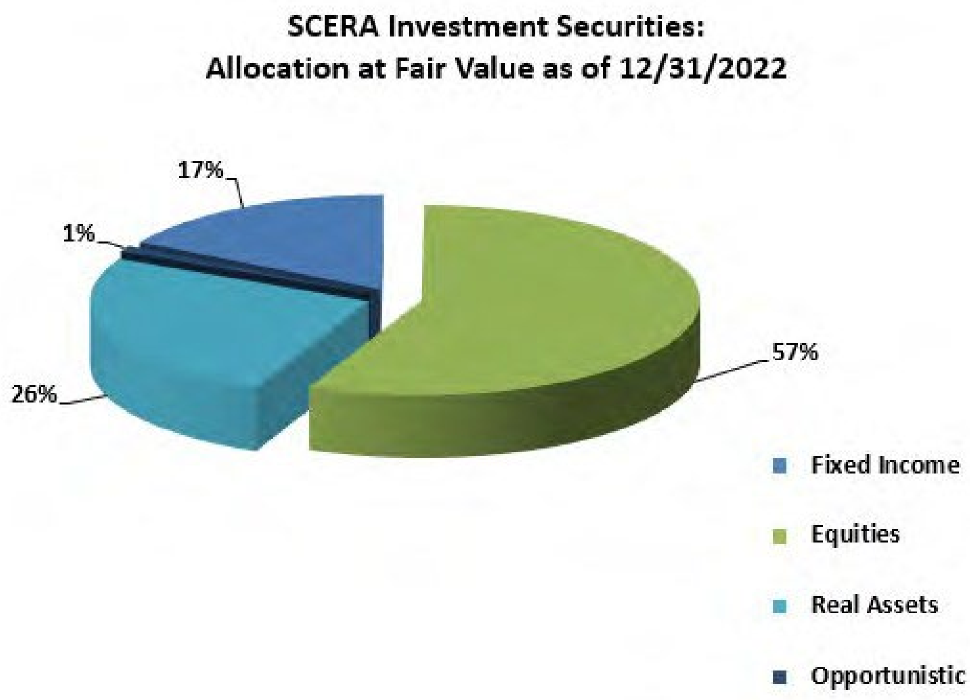
For the year ended December 31, 2022
(dollars not in Thousands)

Brokerage Firm	Number of Shares Traded	Total Commissions	Commission Per Share
ALLEN & COMPANY LLC	900	$ 27,270	30.2995
B.RILEY & CO., LLC	6,898	13,663	1.9807
BARCLAYS CAPITAL LE	194,952	9,386	0.0481
BMO CAPITAL MARKETS	21,880	6,596	0.3015
BOFA SECURITIES, INC.	237,687	3,777	0.0159
BTIG, LLC	23,940	3,119	0.1303
CABRERA CAPITAL MARKETS	1,300	2,606	2.0043
CANTOR FITZGERALD + CO.	79,933	2,336	0.0292
CAPITAL INSTITUTIONAL SVCS INC EQUITIES	1,870	2,181	1.1664
CITIBANK AG	115,944	2,172	0.0187
CITIBANK EUROPE PLC	8,120	2,066	0.2544
CITIBANK INTERNATIONAL PLC	11,740	1,982	0.1688
CITIBANK N.A.	591,269	1,978	0.0033
CITIGROUP GLOBAL MARKETS INC	44,841	1,953	0.0436
CL SECURITIES TAIWAN COMPANY LIMITED	718,100	1,916	0.0027
COWEN AND COMPANY, LLC	70,615	1,869	0.0265
CREDIT LYONNAIS SECURITIES(ASIA)	1,122,000	1,766	0.0016
CREDIT SUISSE SECURITIES (USA) LLC	462,401	1,718	0.0037
EVERCORE ISI	51,375	1,660	0.0323
FIRST CLEARING, LLC	1,600	1,625	1.0156
FLOW CORRETORA DE MERCADORIAS LTDA.	6,200	1,567	0.2528
GOLDMAN SACHS + CO LLC	431,032	1,512	0.0035
GUZMAN AND COMPANY	6,425	1,205	0.1875
HILLTOP SECURITIES INC	9,100	1,160	0.1275
HSBC BROKERAGE (USA) INC.	1,200	646	0.5387
INSTINET	605,759	536	0.0009
INSTINET PACIFIC LIMITED	4,700	461	0.0981
ITG INC	11,579,286	431	-
J.P. MORGAN SECURITIES LLC	497,028	402	0.0008
JEFFERIES LLC	94,430	312	0.0033
All Others	4,837,284	2,969	0.0006
TOTAL	21,839,809	$ 102,840	0.0047

INVESTMENTS AT FAIR VALUE

For the year ended December 31, 2022

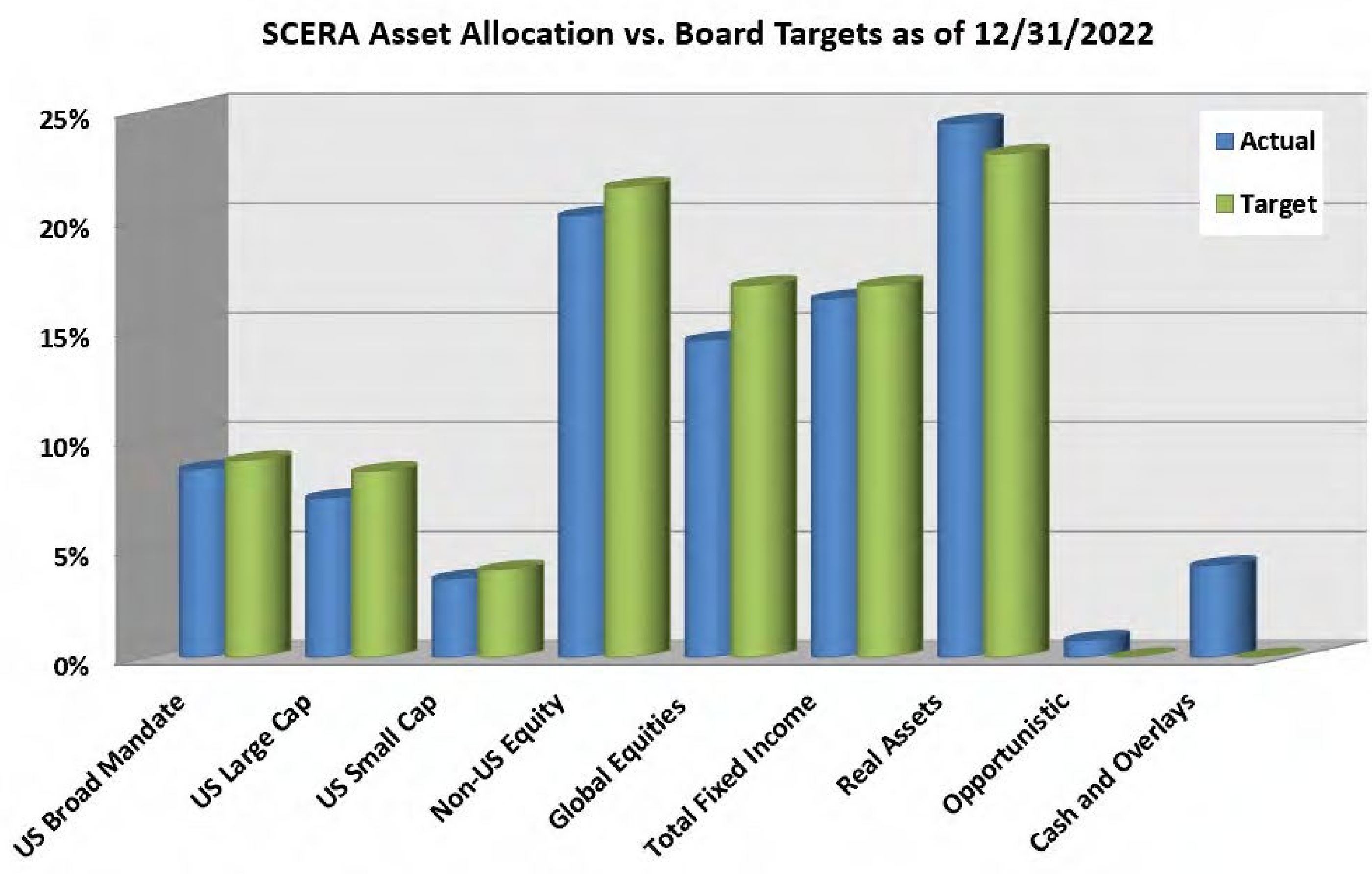
Investments at Fair Value (Dollars in Thousands)		
	Amount	Percentage
Fixed Income	$ 535,545	17%
Equities	1,777,548	57%
Real Assets	801,126	25%
Opportunistic	27,185	1%
Total Investments	$ 3,141,404	100%



ASSET STRATEGY ALLOCATION

For the year ended December 31, 2022

Asset Class	% of Actual	Target %
US Broad Mandate	8.60%	9.00%
US Large Cap	7.30%	8.50%
US Small Cap	3.60%	4.00%
Non-US Equity	20.20%	21.50%
Global Equities	14.50%	17.00%
Total Fixed Income	16.40%	17.00%
Real Assets	24.40%	23.00%
Opportunistic	0.80%	0.00%
Cash and Overlays	4.20%	0.00%
Total Asset Allocation	100%	100%



LARGEST EQUITY HOLDINGS

At December 31, 2022

(Dollars in Thousands)

	Shares	Stock		Fair Value
1)	74,489	Microsoft	$	17,864
2)	109,663	Apple Inc.		14,249
3)	130,851	Alphabet Inc		11,610
4)	86,800	Schwab Corp		7,227
5)	41,586	FedEx Corp		7,203
6)	154,341	iShares MSCI Switzerland ETF		6,472
7)	154,772	Wells Fargo Co.		6,391
8)	47,377	Valero Energy Corp		6,010
9)	20,261	Netflix Inc.		5,975
10)	92,000	Occidental Petroleum Corp		5,795
		Total Largest Equity Holdings	$	88,796

LARGEST FIXED INCOME HOLDINGS

At December 31, 2022

(Dollars in Thousands)

	Par	Bonds		Fair Value
1)	2,732,144	PIMCO FDS Short Term FLTG Nav Mutual Fund	$	27,335
2)	18,390,000	U.S. Treasury 2.50% due 08/15/2023		18,136
3)	19,660,000	FNMA TBA 30 year 2.50% Single Family Mortgage		16,671
4)	940,193	PIMCO FDS PAC Invt Mgmt SER Asset Bkd Secs		10,681
5)	12,985,000	FNMA TBA 30 year 2.00% Single Family Mortgage		10,582
6)	11,985,000	U.S. Treasury 3.00% due 08/15/2052		9,966
7)	9,275,000	U.S. Treasury 4.125% due 10/31/2027		9,324
8)	7,900,000	U.S. Treasury 4.125% due 11/15/2032		8,091
9)	8,810,000	U.S. Treasury 2.75% due 08/15/2032		8,052
10)	7,292,039	FNMA TBA 30 year 4.50% Single Family Mortgage		7,292
		Total Largest Fixed Income Holdings	$	126,130

A complete list of portfolio holdings is available upon request.

Actuarial Section

***Segal**

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

May 26, 2023

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, 2022 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 2023. 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, 2022 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, 2022 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, 2022 for funding purposes.

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Board of Retirement
May 26, 2023
Page2

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, 2022 actuarial valuation. It is our opinion that the assumptions used in the December 31, 2022 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, 2023 and the assumptions approved in that analysis will be applied in the December 31, 2024 valuation.

In the December 31, 2022 valuation, the ratio of the valuation value of assets to actuarial accrued liabilities decreased from 92.9% to 92.4%. The decrease in the funded status was primarily the result of investment return (after "smoothing") lower than the 6.75% return assumption used in the December 31, 2021 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 - Without UAAL Sunset	20.47%	12.82%	33.05%	13.37%
Plan A - County - With UAAL Sunset	20.47%	9.79%	N/A	N/A
Plan A - Court	38.01%	10.09%	N/A	N/A
Plan A-SVFD	18.43%	11.57%	38.65%	11.70%
Plan B- County	16.52%	7.74%	26.95%	13.64%
Plan B - Court	31.96%	7.74%	N/A	N/A
Plan B- SVFD	12.26%	7.74%	22.37%	13.87%
All Cateaories Combined (General & Safety):			**21.25%**	**10.11%**

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. Further. the employer rates shown for General Plan A- County has not been adjusted to reflect the impact of the Employee UAAL Sunset for each group.

As a result of using the actuarial value of assets in the actuarial valuation, there were $141.5 million in net deferred investment losses as of December 31, 2022, which represented 4.5% of the market value of assets. If these net deferred investment losses were recognized immediately in the actuarial value of assets, the funded percentage would decrease from 92.4% to 88.5% and the aggregate employer contribution rate, expressed as a percent of payroll, would increase from 21.3% to 23.6%.

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,

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

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

OH/hy
Enclosures

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ftSegal

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 used 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, 2022, has adopted the following interest rate, inflation, and salary increase assumptions:

ASSUMPTIONS

Valuation Interest Rate	6.75%
Inflation Assumption	2.50%
Across the Board Salary Increase	0.50%
Interest Credited to Reserve Accounts	6.75%
Cost of Living Adjustments	Provided on an ad hoc basis, subject to availability of excess earnings, none assumed in the valuation
Asset Valuation	5-Year Smoothed Actuarial Value

The following demographic assumptions were used with the actuarial valuation as of December 31, 2022. These assumptions were updated based on the System's actual experience through December 31, 2020. The assumptions were recommended by the actuary and approved by the Board.

Post-Retirement Mortality	
(a) Service	
General and Safety Members and Beneficiaries	Pub-2010 Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) increased by 5% for General females, projected generationally with the two-dimensional mortality improvement scale MP-2020. Pub-2010 Contingent Survivor Table increased by 5% for males and females, projected generationally with the two-dimensional mortality improvement scale MP-2020.
(b) Disability	
General and Safety Members	Non-Safety Pub-2010 Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females) for General decreased 5% for males and decreased 10% for females, for Safety Pub-2010 Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females) decreased 5% for females, projected generationally with the two-dimensional mortality improvement scale MP-2020.
(c) For Employee Contribution Rate Purposes	
General Members	Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) increased 5% for females, projected 30 years (from 2010) with the two-dimensional mortality improvement scale MP-2020, weighted 33.33% male and 66.67% female.
Safety Members	Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected 30 years (from 2010) with the two-dimensional mortality improvement scale MP-2020, weighted 75% male and 25% female.
Pre-Retirement Mortality	
General and Safety Members	Pub-2010 General and Safety Employee Amount-Weighted Above-Median Mortality Table (separate tables for males and females), decreased 5% for males, projected generationally with the two-dimensional mortality improvement scale MP-2020.
Withdrawal Rates	Based upon the Experience Analysis as of 12/31/20 (Table on Page 69)
Disability Rates	Based upon the Experience Analysis as of 12/31/20 (Table on Page 69)
Service Retirement Rates	Based upon the Experience Analysis as of 12/31/20 (Table on Page 69)
Reciprocity Assumption	25% of General members and 35% of Safety members who terminate are assumed to enter a reciprocal system
Salary Scales	As shown in Table on Page 70
Leave Conversion Compensation Increase	3.25% for General Plan A Superior Court; 2.00% for Sonoma Valley Fire General members, 2.50% for Safety Plan A Sonoma Valley Fire members
Spouses and Dependents	70% of male employees and 55% of female employees assumed to be married at retirement. Female spouses are assumed to be 3 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	Without reciprocity - 58 for General members; 52 for Safety members With reciprocity - 60 for General members; 55 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	.0125	.0003	.0001	.0005	.0000	.0400
30	.0110	.0003	.0001	.0005	.0000	.0400
40	.0044	.0005	.0003	.0014	.0000	.0300
50	.0032	.0012	.0008	.0023	.0500	.0225
60	.0004	.0026	.0017	.0030	.2100	.0225

Safety Members

Age Nearest	Withdrawal	Mortality Male[1]	Mortality Female[1]	Disability[3]	Service[4]	Terminated Vested[5]
20	.0100	.0004	.0001	.0010	.0000	.0375
30	.0085	.0003	.0002	.0068	.0000	.0300
40	.0025	.0005	.0004	.0150	.0000	.0140
50	.0002	.0010	.0008	.0250	.1800	.0030
60	.0000	.0022	.0014	.0300	.5000	.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) 100% of Safety disabilities are assumed to be 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 General member at age 30 is 0.0110, then we are assuming that 1.10% of the active General 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, 2022

Consists of the sum of two parts: A uniform inflation component of 2.50% plus “Across the Board” salary increases of 0.50% per year; plus, a service-related component for merit and promotion increases:

Years of Service	General Members	Safety Members
Less than 1	5.00%	7.50%
1-2	5.50%	7.50%
2-3	4.50%	5.00%
3-4	3.50%	4.50%
4-5	2.50%	3.50%
5-6	2.00%	1.75%
6-7	1.50%	1.50%
7-8	1.25%	1.25%
8-9	1.25%	1.25%
9-10	1.25%	1.25%
10-11	1.00%	1.25%
11-12	1.00%	1.25%
12-13	0.75%	1.25%
13-14	0.75%	1.00%
14-15	0.75%	1.00%
15 & Over	0.55%	1.00%

SCHEDULE OF FUNDING PROGRESS

(Dollars in Thousands)

Actuarial Valuation Date	Valuation 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)
12/31/13	$ 2,016,781	$ 2,466,224	$ 449,443	81.8%	$ 329,894	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%	339,516	119.6%
12/31/16	2,399,171	2,807,398	408,227	85.5%	356,130	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%	378,160	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%	400,562	70.6%
12/31/21	3,215,505	3,460,051	244,546	92.9%	408,279	59.9%
12/31/22	3,311,174	3,582,766	271,592	92.4%	423,272	64.2%

ACTUARIAL ANALYSIS OF FINANCIAL EXPERIENCE

Items Impacting Unfunded Actuarial Accrued Liability (UAAL)

(Dollars in Thousands)

Plan Years	**2022**	**2021**	**2020**	**2019**	**2018**
Beginning of the Year UAAL Liability	$ 244,546	$ 282,715	$ 332,031	$ 404,732	$ $ 359,557
Source of Actuarial (Gain) Loss:					
Compensation Increase/(Decrease)	12,509	(5,243)	17,286	(34,651)	11,293
Expected Contributions	4,298	(1,976)	(255)	12,332	(493)
Investment Experience Recognized	39,826	(99,099)	(41,110)	(32,718)	13,629
Other Experience	(1,211)	(7,266)	(983)	(2,786)	661
Subtotal: Actuarial (Gain) Loss	$ 55,422	$ (113,584)	$ (25,062)	$ (57,823)	$ 25,090
Other Items Impacting UAAL:					
Assumption Change (Triennial Experience Study)	-	96,768	-	-	31,798
Interest Accrual on UAAL Balance	15,353	18,586	22,003	27,009	24,876
Additional UAAL Contributions from County	(5,795)	(1,873)	(7,128)	-	-
Expected employer/employee contributions less normal cost	(37,934)	(38,066)	(39,129)	(41,887)	(36,589)
End of the Year UAAL Liability (Surplus)	$ 271,592	$ 244,546	$ 282,715	$ 332,031	$ 404,732

SCHEDULE OF PROJECTED ACTIVE MEMBER VALUATION DATA

(Dollars in Thousands)

Actuarial Valuation Date	Plan Type	Number of Active Members	Projected Covered Payroll $	Annual Average Pay $ (not in thousands)	Percentage of Increase (Decrease) in Average Pay*
12/31/13					
	General	3,125	258,101	82,592	2.8%
	Safety	708	71,793	101,403	3.7%
	Total	3,833	329,894	86,067	2.9%
12/31/14					
	General	3,211	255,577	79,594	-3.6%
	Safety	711	68,841	96,824	-4.5%
	Total	3,922	324,418	82,718	-3.9%
12/31/15					
	General	3,366	270,904	80,483	1.1%
	Safety	705	68,612	97,323	0.5%
	Total	4,071	339,516	83,399	0.8%
12/31/16					
	General	3,411	285,234	83,622	3.9%
	Safety	701	70,896	101,135	3.9%
	Total	4,112	356,130	86,607	3.9%
12/31/17					
	General	3,385	294,379	86,966	4.0%
	Safety	725	75,372	103,961	2.8%
	Total	4,110	369,751	89,964	3.9%
12/31/18					
	General	3,309	300,960	90,952	4.6%
	Safety	712	77,200	108,427	4.3%
	Total	4,021	378,160	94,046	4.5%
12/31/19					
	General	3,334	302,388	90,698	-0.3%
	Safety	706	75,771	107,324	-1.0%
	Total	4,040	378,159	93,604	-0.5%
12/31/20					
	General	3,368	318,143	94,461	4.2%
	Safety	722	82,419	114,154	6.4%
	Total	4,090	400,562	97,937	4.6%
12/31/21					
	General	3,385	326,981	96,597	2.3%
	Safety	681	81,298	119,380	4.6%
	Total	4,066	408,279	100,413	2.5%
12/31/22					
	General	3,433	340,502	99,185	2.7%
	Safety	670	82,770	123,537	3.5%
	Total	4,103	423,272	103,161	2.7%

* 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		Increase in	Average
Plan Year	No.	Annual Allowances	No.	Annual Allowances	No.	Annual Allowances	Annual Allowances	Annual Allowances
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%	34,257
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
2021	252	10,627,821	121	2,826,693	5,478	196,618,020	4.1%	35,892
2022	270	12,737,960	121	2,973,128	5,627	206,382,852	5.0%	36,677

SCHEDULE OF FUNDED LIABILITIES BY TYPE

(Dollars in Thousands)

	Aggregate Accrued Liabilities for					Portion of Accrued Liabilities Covered by Valuation Assets %		
	(1)	(2)	(3)					
Valuation Date	Active Member Contributions	Retired/ Vested Members	Active Members (Employer Financed Portion)	Total	Valuation Value of Assets	(1)	(2)	(3)
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	26
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
12/31/21	600,996	2,144,203	714,852	3,460,051	3,215,505	100	100	66
12/31/22	610,594	2,240,651	731,521	3,582,766	3,311,174	100	100	63

This exhibit includes actuarially funded liabilities and assets.

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, 2022.

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 the 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, approved, 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.

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)	2022	2021	2020	2019	2018
Additions					
Employer Contributions	$ 76,562	$ 74,953	$ 77,506	$ 65,155	$ 67,425
Member Contributions	49,224	49,056	47,364	44,659	45,567
Net Investment Income/(Loss)	(269,319)	522,238	225,040	415,559	(107,078)
Total Additions	(143,533)	646,247	349,910	525,373	5,914
Deductions					
Retirement Benefits	201,711	193,130	185,982	179,424	170,370
Refunds	2,964	2,376	4,111	3,322	2,192
Administrative Expenses	3,366	2,827	2,846	3,152	3,072
Other Expenses	155	228	186	394	511
Total Deductions	208,196	198,561	193,125	186,292	176,145
Change in Fiduciary Net Position	$ (351,729)	$ 447,686	$ 156,785	$ 339,081	$ (170,231)

(Dollars in Thousands)	2017	2016	2015	2014	2013
Additions					
Employer Contributions	$ 63,822	$ 63,639	$ 68,240	$ 61,179	$ 51,852
Member Contributions	44,161	40,783	38,714	37,126	35,492
Net Investment Income/(Loss)	394,909	189,949	34,589	117,663	370,240
Total Additions	502,892	294,371	141,543	215,968	457,584
Deductions					
Retirement Benefits	162,973	155,220	147,277	140,430	134,311
Refunds	2,975	2,232	2,087	1,246	1,650
Administrative Expenses	3,156	3,665	3,268	3,107	3,227
Other Expenses	576	554	258	483	550
Total Deductions	169,680	161,671	152,890	145,266	139,738
Change in Fiduciary Net Position	$ 333,212	$ 132,700	$ (11,347)	$ 70,702	$ 317,846

REVENUES BY SOURCE

(Dollars in Thousands)

Fiscal Year Ended 12/31	Member Contributions	Employer Contributions	Investment Net Income/(Loss)	Total
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
2021	49,056	74,953	522,238	646,247
2022	49,224	76,562	(269,319)	(143,533)

EXPENSES BY TYPE

(Dollars in Thousands)

Fiscal Year Ended 12/31	Pension Benefits	Administrative & Other Expenses	Contribution Refunds	Total
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
2021	193,130	3,055	2,376	198,561
2022	201,711	3,521	2,964	208,196

SCHEDULE OF BENEFIT EXPENSES BY TYPE

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

(Dollars in Thousands)

	2022	2021	2020	2019	2018
Service Retirement Payroll:					
General	$ 136,920	$ 129,892	$ 125,424	$ 121,503	$ 117,058
Safety	35,103	33,782	31,511	30,507	28,353
Total	$ 172,023	$ 163,674	$ 156,935	$ 152,010	$ 145,411
Disability Retiree Payroll:					
General	7,192	7,336	7,240	7,321	7,391
Safety	14,752	13,709	13,187	12,836	11,856
Total	$ 21,944	$ 21,045	$ 20,427	$ 20,157	$ 19,247
Beneficiary Payroll:					
General	9,013	8,633	8,411	7,756	7,393
Safety	3,402	3,265	3,044	2,677	2,521
Total	$ 12,415	$ 11,898	$ 11,455	$ 10,433	$ 9,914
Total Benefit Expense:					
General	153,125	145,861	141,075	136,580	131,842
Safety	53,257	50,756	47,742	46,020	42,730
Total	$ 206,382	$ 196,617	$ 188,817	$ 182,600	$ 174,572

	2017	2016	2015	2014	2013
Service Retirement Payroll:					
General	$ 111,380	$ 107,281	$ 101,918	$ 97,528	$ 93,074
Safety	26,318	24,488	23,137	21,767	20,708
Total	$ 137,698	$ 131,769	$ 125,055	$ 119,295	$ 113,782
Disability Retiree Payroll:					
General	7,450	7,298	7,141	7,312	7,431
Safety	11,232	10,818	9,732	9,073	8,790
Total	$ 18,682	$ 18,116	$ 16,873	$ 16,385	$ 16,221
Beneficiary Payroll:					
General	7,083	6,534	6,252	5,502	5,387
Safety	2,345	2,190	2,048	1,834	1,748
Total	$ 9,428	$ 8,724	$ 8,300	$ 7,336	$ 7,135
Total Benefit Expense:					
General	125,913	121,113	115,311	110,342	105,892
Safety	39,895	37,496	34,917	32,674	31,246
Total	$ 165,808	$ 158,609	$ 150,228	$ 143,016	$ 137,138

Source of data: December 31, 2022 Actuarial Valuation Report Supporting Schedules

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, 2022

(Dollars in Thousands)

	General Members		Safety Members		Total	
	Number	Monthly Allowance	Number	Monthly Allowance	Number	Monthly Allowance
Retired Members						
Service Retirement	3,693	$ 11,410	608	$ 2,925	4,301	$ 14,335
Ordinary Disability	90	120	12	19	102	139
Duty Disability	224	479	334	1,210	558	1,689
Beneficiaries	522	751	144	284	666	1,035
Total Retired Members	4,529	$ 12,760	1,098	$ 4,438	5,627	$ 17,199

Source of data: December 31, 2022 Actuarial Valuation Report Supporting Schedules

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	Unknown
Valuation date 12/31/13								
Final Average Retiree Salary (1)	$4,361	$4,843	$5,344	$5,699	$6,329	$6,600	$7,243	(2)
Average Monthly Benefit of Retirees	$887	$1,314	$1,761	$2,503	$3,572	$4,640	$6,168	$1,503
Number Retirees	279	488	955	643	568	407	403	167
Average Monthly Benefit of Beneficiaries	$827	$696	$893	$1,129	$1,607	$1,984	$2,251	$1,093
Number Beneficiaries	25	63	95	67	50	43	43	98
Valuation date 12/31/14								
Final Average Retiree Salary (1)	$4,437	$4,946	$5,469	$5,867	$6,439	$6,716	$7,396	(2)
Average Monthly Benefit of Retirees	$864	$1,314	$1,798	$2,570	$3,632	$4,719	$6,246	$1,535
Number Retirees	291	503	987	669	580	424	410	151
Average Monthly Benefit of Beneficiaries	$759	$763	$936	$1,138	$1,627	$1,979	$2,308	$1,102
Number Beneficiaries	29	68	96	66	53	41	44	94
Valuation date 12/31/15								
Final Average Retiree Salary (1)	$4,414	$5,007	$5,567	$6,005	$6,563	$6,923	$7,583	(2)
Average Monthly Benefit of Retirees	$849	$1,329	$1,833	$2,625	$3,703	$4,827	$6,316	$1,527
Number Retirees	296	519	1,017	687	595	445	419	145
Average Monthly Benefit of Beneficiaries	$742	$791	$960	$1,322	$1,617	$1,991	$2,317	$1,097
Number Beneficiaries	29	69	103	75	56	56	49	93
Valuation date 12/31/16								
Final Average Retiree Salary (1)	$5,487	$5,225	$5,587	$5,931	$6,533	$6,712	$7,242	$3,259
Average Monthly Benefit of Retirees	$857	$1,367	$1,884	$2,711	$3,826	$4,893	$6,368	$1,508
Number Retirees	310	532	1,045	734	615	455	433	134
Average Monthly Benefit of Beneficiaries	$661	$791	$975	$1,317	$1,617	$1,998	$2,301	$1,106
Number Beneficiaries	31	69	109	76	60	58	55	96
Valuation date 12/31/17								
Final Average Retiree Salary (1)	$5,699	$5,381	$5,715	$6,027	$6,594	$6,872	$7,411	$3,298
Average Monthly Benefit of Retirees	$883	$1,380	$1,928	$2,768	$3,858	$5,004	$6,527	$1,535
Number Retirees	323	550	1,067	767	631	464	438	125
Average Monthly Benefit of Beneficiaries	$744	$805	$961	$1,280	$1,930	$2,000	$2,487	$1,138
Number Beneficiaries	32	73	110	77	67	58	58	96

(1) Final Average Salary information is not reported by SCERA in every record, therefore we have only included those members with a Final Average Salary while calculating these figures.
(2) Less than one-half of the members in this category were reported with a final average salary.

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	Unknown
Valuation date 12/31/18								
Final Average Retiree Salary (1)	$6,003	$5,576	$5,857	$6,159	$6,743	$7,026	$7,475	$3,343
Average Monthly Benefit of Retirees	$884	$1,405	$1,973	$2,844	$3,963	$5,130	$6,604	$1,592
Number Retirees	333	566	1,097	793	662	482	444	116
Average Monthly Benefit of Beneficiaries	$784	$791	$1,002	$1,348	$1,907	$1,994	$2,470	$1,047
Number Beneficiaries	35	77	115	80	68	63	61	104
Valuation date 12/31/19								
Final Average Retiree Salary (1)	$6,328	$5,742	$5,997	$6,271	$6,830	$7,053	$7,630	$3,414
Average Monthly Benefit of Retirees	$861	$1,415	$2,019	$2,903	$4,010	$5,180	$6,743	$1,566
Number Retirees	351	590	1,126	816	690	495	456	103
Average Monthly Benefit of Beneficiaries	$779	$805	$1,054	$1,337	$1,929	$1,990	$2,465	$1,056
Number Beneficiaries	36	81	115	83	74	64	67	103
Valuation date 12/31/20								
Final Average Retiree Salary (1)	$6,482	$5,843	$6,079	$6,320	$6,940	$7,147	$7,720	$3,445
Average Monthly Benefit of Retirees	$853	$1,435	$2,054	$2,926	$4,085	$5,241	$6,837	$1,528
Number Retirees	361	600	1,135	832	716	500	462	93
Average Monthly Benefit of Beneficiaries	$800	$907	$1,147	$1,393	$2,022	$2,051	$2,561	$1,084
Number Beneficiaries	43	82	121	86	77	70	71	98
Valuation date 12/31/21								
Final Average Retiree Salary (1)	$6,690	$6,027	$6,158	$6,424	$7,081	$7,239	$7,851	$3,468
Average Monthly Benefit of Retirees	$860	$1,449	$2,091	$2,978	$4,196	$5,313	$6,968	$1,531
Number Retirees	372	643	1,145	866	741	500	470	84
Average Monthly Benefit of Beneficiaries	$791	$917	$1,201	$1,439	$2,043	$2,085	$2,588	$1,078
Number Beneficiaries	48	84	120	83	81	71	77	93
Valuation date 12/31/22								
Final Average Retiree Salary (1)	$6,894	$6,266	$6,292	$6,569	$7,169	$7,433	$7,851	$3,528
Average Monthly Benefit of Retirees	$876	$1,479	$2,132	$3,058	$4,251	$5,481	$7,057	$1,556
Number Retirees	382	685	1,159	891	763	515	486	80
Average Monthly Benefit of Beneficiaries	$781	$900	$1,207	$1,447	$2,133	$2,165	$2,673	$1,104
Number Beneficiaries	49	84	123	87	88	74	77	84

(1) Final Average Salary information is not reported by SCERA in every record, therefore we have only included those members with a Final Average Salary while calculating these figures.

Source of data: December 31, 2022 Actuarial Valuation Report Supporting Schedules

PARTICIPATING EMPLOYERS AND ACTIVE MEMBERS

As of December 31,

	Total-All Employers	County of Sonoma	Sonoma Valley Fire District	Superior Court
2013				
Number of Covered Employees	3,833	3,619	40	174
Percentage to Total System	100%	94.42%	1.04%	4.54%
2014				
Number of Covered Employees	3,922	3,712	39	171
Percentage to Total System	100%	94.64%	1.00%	4.36%
2015				
Number of Covered Employees	4,071	3,842	41	188
Percentage to Total System	100%	94.38%	1.00%	4.62%
2016				
Number of Covered Employees	4,112	3,884	40	188
Percentage to Total System	100%	94.46%	0.97%	4.57%
2017				
Number of Covered Employees	4,110	3,880	46	184
Percentage to Total System	100%	94.40%	1.12%	4.48%
2018				
Number of Covered Employees	4,021	3,796	47	178
Percentage to Total System	100%	94.40%	1.17%	4.43%
2019				
Number of Covered Employees	4,040	3,811	50	179
Percentage to Total System	100%	94.33%	1.24%	4.43%
2020				
Number of Covered Employees	4,090	3,862	59	169
Percentage to Total System	100%	94.43%	1.44%	4.13%
2021				
Number of Covered Employees	4,066	3,848	60	158
Percentage to Total System	100%	94.64%	1.48%	3.89%
2022				
Number of Covered Employees	4,103	3,884	61	158
Percentage to Total System	100%	94.66%	1.49%	3.85%

Source of data: SCERA systems

Sonoma County Employees'
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