Annual Comprehensive Financial Report

For the Year Ended December 31, 2022

San Joaquin County Employees' Retirement Association

A Pension Trust Fund of San Joaquin County, CA

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

A Pension Trust Fund of San Joaquin County, CA

Annual Comprehensive Financial Report

For the Year Ended December 31, 2022

ISSUED BY SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

Johanna Shick, *Chief Executive Officer*
Carmen Murillo, *Financial Officer*

6 So. El Dorado Street, Suite 400
Stockton, California 95202

(209) 468-2163
www.sjcera.org

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Introduction

San Joaquin County Employees' Retirement Association
6 S. El Dorado Street, Suite 400 • Stockton, CA 95202 • (209) 468-2163 • (209) 468-0480 • www.sjcera.org

May 25, 2023

Board of Retirement
6 S. El Dorado Street, Suite 400
Stockton, CA 95202

To SJCERA's Trustees, Members and Beneficiaries, Plan Sponsor and Participating Employers:

I am pleased to present the *Annual Comprehensive Financial Report* for the year ended December 31, 2022. This report provides a detailed overview of the SJCERA Plan and the fund's financial, actuarial and investment-related activities for the year. All data and information presented is accurate and reliable, conforms to generally accepted accounting principles, and is free of material misstatements. This *Letter of Transmittal* is a narrative introduction to the *Annual Comprehensive Financial Report*; I encourage you to read it in conjunction with the *Management's Discussion and Analysis* included in the Financial Section.

SJCERA AND ITS SERVICES

SJCERA is a public employee defined benefit retirement system established by the San Joaquin County Board of Supervisors effective June 28, 1946. SJCERA is administered by the Board of Retirement (Board) to provide retirement, disability and survivors' benefits to its members under the County Employees Retirement Law (CERL) and the Public Employees' Pension Reform Act of 2013 (PEPRA). SJCERA provides benefits to eligible General and Safety members employed by SJCERA participating employers:

- Lathrop-Manteca Rural Fire Protection District
- Mountain House Community Services District
- San Joaquin County
- San Joaquin County Historical Society and Museum
- San Joaquin County Law Library
- San Joaquin County Mosquito and Vector Control District
- San Joaquin County Superior Court
- San Joaquin Local Agency Formation Commission
- Tracy Public Cemetery District
- Waterloo-Morada Rural Fire Protection District

The Board of Retirement has exclusive control and fiduciary responsibility for administering the benefits and managing the investment of plan assets. The Board oversees the Chief Executive Officer and staff in their administration of the plan. SJCERA operates in accordance with the Internal Revenue Code, the California State Constitution, the applicable sections of CERL and PEPRA, and the bylaws, resolutions, policies, and procedures adopted by the Board. The San Joaquin County Board of Supervisors may also adopt resolutions, as permitted by law, which may affect benefits of SJCERA members.

Letter of Transmittal

The nine-member Board of Retirement consists of four trustees appointed by the Board of Supervisors, the San Joaquin County Treasurer-Tax Collector, and four trustees elected by SJCERA members. In addition, the Board has two alternate positions elected by members: one alternate retired member position, and one alternate active Safety member position, which is currently vacant.

FINANCIAL INFORMATION

SJCERA management is responsible for the accuracy, completeness, and fair presentation of the information in this report as well as for establishing and maintaining internal controls ensuring SJCERA's financial reporting is accurate and reliable, and SJCERA's assets are protected from loss, theft or misuse. Internal controls are designed to provide reasonable, but not absolute, assurance these objectives are met. Reasonable assurance recognizes the cost of a control relative to the benefits likely to be derived and these judgments by management are based on estimates.

Brown Armstrong Accountancy Corporation, a certified public accounting firm, has audited SJCERA's financial statements and related disclosures, which are prepared by management. Brown Armstrong attests they are presented in conformity with generally accepted accounting principles (GAAP) in the United States of America as promulgated by the Governmental Accounting Standards Board (GASB) and are free from material misstatement. Internal controls are sufficient to provide reasonable assurance regarding the safekeeping of assets and fair presentation of the financial statements and supporting schedules. The accompanying basic financial statements and transactions of the organization are prepared on the accrual basis of accounting.

INVESTMENTS

SJCERA's diversified strategic asset allocation is designed to achieve SJCERA's long-term objectives. For the year ended December 31, 2022, the total fund generated a gross of fees return of -6.7%. Although this is below SJCERA's 6.75% assumed rate of return (our target), the portfolio's performance during this time period ranks 13th best nationwide of public pension plans greater than $1 billion. It was a difficult year for investments—the Standard & Poor's 500 Index return was -18.01%; however, SJCERA's diversified portfolio, with its downside protection, performed comparatively well. As of December 31, 2022, the plan assets were approximately $3.8 billion. More information about SJCERA's investments is included in the Investments section.

FUNDING

SJCERA engages a professional pension actuary to perform an annual actuarial valuation and Governmental Accounting Standards Board (GASB) 67/68 Report. The GASB 67/68 Report indicates during 2022, SJCERA's total pension liability increased from $5.4 billion to $5.5 billion, the market value of assets decreased from $4.2 billion to $3.8 billion, and the net pension liability increased from $1.2 billion to $1.7 billion.

The actuarial valuation determines the progress made in accumulating sufficient assets to pay benefits when due. The January 1, 2023 valuation, which reflects the plan's progress in 2022, will be available in August 2023, after the publication of this report. As a result, the detailed discussion of funding provided in the Actuarial section of this report is based on the January 1, 2022 valuation, which reflects SJCERA's progress in 2021. During that time period, the funded ratio increased from 68.1% to 78.0% on a Market Value of Assets (MVA) basis, the highest since 2007. As reported in Note 8 of the Financial Section of this report, the MVA funded ratio, which will be reported in our August 2023 valuation will decrease but is still expected to be close to 70%.

Three SJCERA Participating Employers continue to make additional contributions to the Unfunded Liability: the County of San Joaquin, the Superior Court and the Mosquito and Vector Control District.

MAJOR INITIATIVES

Staff and the Board have much to be proud of in 2022. SJCERA completed its asset liability study and actuarial experience study, adopted a new strategic asset allocation, implemented cyber security audit recommendations, and initiated the pension administration system and data clean-up/data conversion projects to name a few. Additional 2022 accomplishments, a few of which are summarized below, reflected optimism and growth.

Strengthen the long-term financial health of the Retirement Plan. The Board of Retirement took steps to strengthen the long term health of the plan by conducting an Actuarial Experience Study and adopting assumption changes recommended as a result of the study. The Board also lowered the assumed rate of return from 7% to 6.75%, which staff implemented by making the required system and procedural changes.

The Board also conducted an Asset-Liability Study to assess its risk tolerance and the level of risk needed to meet the actuarial assumptions. As a result of the study, the Board adopted a revised Strategic Asset Allocation policy in June. The new allocation is expected meet or exceed the return assumption and improve funded status over time, which are the Board's top two priorities.

Manage Emerging Organizational Needs. In addition to the Action Plan results, staff completed the following projects: the Investment Counsel RFP, Alameda decision, Tier 2 pensionable compensation revisions, and death audit process enhancements.

Enhance the Member Experience. Improvements to the website architecture and functionality were implemented with the new website going live in August. The new site is more user-friendly, has search capabilities and enhances the member's over all experience.

ACHIEVEMENTS IN FINANCIAL REPORTING AND PLAN ADMINISTRATION

The Government Finance Officers Association (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to SJCERA for its *Annual Comprehensive Financial Report* (ACFR) for the Year Ended December 31, 2022. This award recognizes compliance with the highest standards for state and local government financial reporting. SJCERA also received the GFOA award for Outstanding Achievement in Popular Annual Financial Reporting, a condensed financial report for members, in an easier to read format. Additionally, the Public Pension Coordinating Council honored SJCERA with the Public Pension Standards Award for Funding and Administration.

ACKNOWLEDGMENT

SJCERA's success, as reflected in this report, is the result of the combined effort of many. I want to recognize the trustees of the Board of Retirement for their leadership and policy decisions, which provide direction and focus to our work. Additionally, I want to thank SJCERA's advisors whose diligent efforts help ensure the successful operation of SJCERA. Finally, I want to thank SJCERA's staff for their dedicated service to our members, commitment to administering the Plan with integrity, and hard work in compiling this report. None of SJCERA's success would be possible without them.

Sincerely,

JShick

Johanna Shick
Chief Executive Officer

Certificate of Achievement for Excellence in Financial Reporting

Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

San Joaquin 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

Public Pension Standards Award For Funding and Administration 2022

Public Pension Coordinating Council

Public Pension Standards Award
For Funding and Administration
2022

Presented to

San Joaquin 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

Members of the Board of Retirement as of December 31, 2022

MICHAEL RESTUCCIA
Chair
Appointed by Board of Supervisors

MICHAEL DUFFY
Vice Chair
Appointed by Board of Supervisors

RAYMOND MCCRAY
Secretary
Appointed by Board of Supervisors

CHANDA BASSETT
Elected by Safety Members

JENNIFER GOODMAN
Elected by General Members

PHONXAY KEOKHAM
Ex-Officio Member

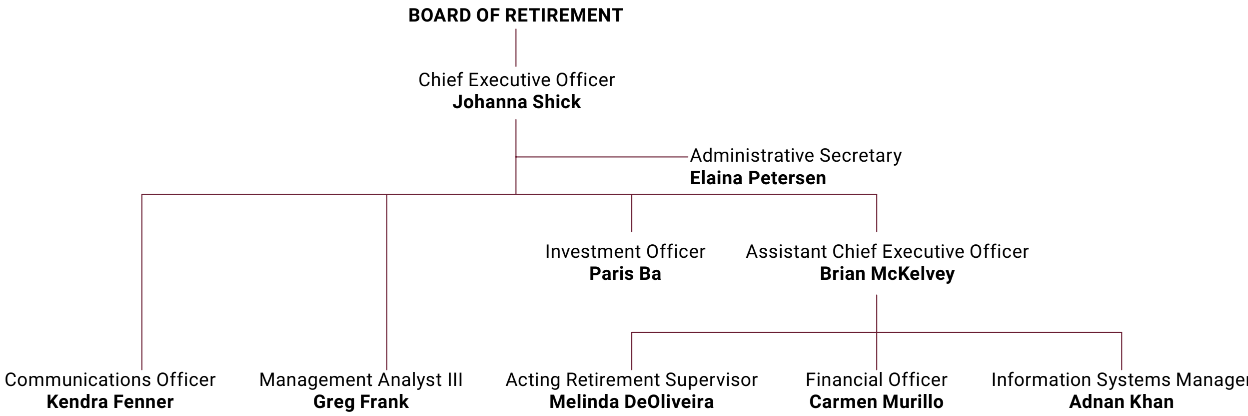
STEVE MOORE
Appointed by Board of Retirement - Alternate

EMILY NICHOLAS
Elected by General Members

ROBERT RICKMAN
Appointed by Board of Supervisors

J.C. WEYDERT
Elected by Retired Members

Administrative Organization Chart as of December 31, 2022



List of Professional Consultants

CONSULTING SERVICES

ACTUARY

Cheiron Actuaries

AUDITORS

Brown Armstrong Accountancy Corporation

CUSTODIAN

Northern Trust Company

INFORMATION SYSTEMS

IG, Incorporated
MBS
Linea

INVESTMENT CONSULTANTS

Meketa Investment Group

LEGAL COUNSEL

Buchalter
Nossaman, LLP
Rimon Law
San Joaquin County Counsel
Vivian W. Shultz, Attorney At Law

Please refer to the Investment Section for a *Schedule of Investment Fees* and *Schedule of Commissions*, page 67, and the *List of Investment Managers* on page 70.

Financial

Brown Armstrong
Certified Public Accountants

www.ba.cpa
661-324-4971

INDEPENDENT AUDITOR'S REPORT

To the Members of the Board of Retirement and Audit Committee of
San Joaquin County Employees' Retirement Association
Stockton, California

Report on the Audit of the Financial Statements

Opinions

We have audited the accompanying Statement of Fiduciary Net Position of the San Joaquin County Employees' Retirement Association (SJCERA), a pension trust fund of the County of San Joaquin, as of December 31, 2022, 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 SJCERA's basic financial statements as listed in the table of contents. We have also audited the Schedule of Cost Sharing Employer Allocations and the Schedule of Employer Pension Amounts Allocated by Cost Sharing Plan total for all entities of the columns titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total pension expense (specified column totals) as of and for the year ended December 31, 2022, listed as other information 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 SJCERA as of December 31, 2022; the changes in fiduciary net position for the year then ended; and the Schedule of Cost Sharing Employer Allocations and the Schedule of Employer Pension Amounts Allocated by Cost Sharing Plan total for all entities of the columns titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total pension expense (specified column totals) as of and for the year ended December 31, 2022, in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinions

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 SJCERA 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 opinions.

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; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Bakersfield
4200 Truxtun Avenue, Suite 300
Bakersfield, CA 93309
661-324-4971

Fresno
10 River Park Place East, Suite 208
Fresno, CA 93720
559-476-3592

Stockton
2423 West March Lane, Suite 202
Stockton, CA 95219
209-451-4833

Independent Auditor's Report

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 SJCERA'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.

Management is also responsible for maintaining a current plan instrument, including all plan amendments; administering the plan; and determining that the plan's transactions that are presented and disclosed in the financial statements are in conformity with the plan's 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 SJCERA'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 SJCERA'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.

Supplementary Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise SJCERA's basic financial statements. The supplementary information, as listed in the table of contents, is presented for purposes of additional analysis and is 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 supplementary information, as listed in the table of contents, is 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 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 SJCERA's December 31, 2021, financial statements, and our report dated May 24, 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 25, 2023, on our consideration of SJCERA'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 SJCERA'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 SJCERA's internal control over financial reporting and compliance.

BROWN ARMSTRONG
ACCOUNTANCY CORPORATION

Brown Armstrong
Accountancy Corporation

Bakersfield, California
May 25, 2023

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Management's Discussion and Analysis

INTRODUCTION

Management's Discussion and Analysis (MD&A) presents the overview and analysis of the financial activities of the San Joaquin County Employees' Retirement Association (SJCERA or the Plan) for the year ended December 31, 2022. This MD&A presents SJCERA's overall financial position and the results of its operations, in conjunction with SJCERA's financial statements and notes.

FINANCIAL HIGHLIGHTS

- SJCERA's fiduciary net position decreased by $381.0 million, or 9.07 percent, to $3.8 billion as of December 31, 2022.
- SJCERA's funding objective is to meet long-term benefit obligations through contributions and investment income. As of January 1, 2022, the date of the last actuarial valuation, the funded ratio for the actuarial liability was approximately 72.4 percent. In general, this indicates that for every dollar of benefits liability, SJCERA has about 72 cents. The portion of the pension liability attributable to inactive members (retired or deferred) is fully funded by plan assets. (Note 8c provides a more detailed explanation of recent changes in the funded ratio.)
- Revenues for the year were $(96.0) million, a decrease of $1.0 billion from the prior year. The decrease was mainly caused by the decrease in net investment gains/(losses) compared to the prior year.
- Expenses for the year were $285.0 million, an increase of $14.4 million, or 5.31 percent, from the prior year's $270.6 million. This increase was primarily due to the $11.1 million increase in pension benefit payments to retirees.

OVERVIEW OF FINANCIAL STATEMENTS

The SJCERA 2022 financial statements, notes to the financial statements, required supplementary information, other supplementary information, and other information were prepared in accordance with the accounting principles and reporting standards prescribed by the Governmental Accounting Standards Board (GASB). The following discussion and analysis are intended to serve as an introduction and overview of SJCERA's financial reporting components.

The **Statement of Fiduciary Net Position** is the financial statement that presents the major categories of assets and liabilities and their related values. It represents the resources available for future benefit payments to retirees and beneficiaries and the current liabilities owed as of December 31, 2022, with comparative totals as of December 31, 2021.

The **Statement of Changes in Fiduciary Net Position** is the financial statement that provides an income statement presentation of annual additions to and deductions from the Plan for the year ended December 31, 2022, with comparative totals as of December 31, 2021.

The **Notes to the Basic Financial Statements** provide additional information that is essential to a full understanding of the data provided in the audited financial statements.

The **Required Supplementary Information** provides the Schedule of Changes in Net Pension Liability and Related Ratios, Schedule of Contributions from the Employers and Other Contributing Sources, Schedule of Investment Returns, and Note to Required Supplementary Information.

The **Other Supplementary Information** includes a Schedule of Administrative Expenses, Schedule of Investment Expenses, and Schedule of Payments to Consultants.

The **Other Information** includes two schedules pertaining to GASB Statement No. 68: the Schedule of Cost Sharing Employer Allocations and the Schedule of Employer Pension Amounts Allocated by Cost Sharing Plan.

DEFINED BENEFIT PENSION PLAN FINANCIAL ANALYSIS

As of December 31, 2022, SJCERA's Fiduciary Net Position was $3.8 billion, a decrease of $381.0 million. Employer and member contributions of $316.5 million were offset by a net investment loss of $412.8 million and benefits payments and administrative expenses of $285.0 million. Over time, increases and decreases in fiduciary net position are one of the indicators of whether SJCERA's financial situation is improving or deteriorating. Additional factors, such as market conditions, also need to be considered in assessing SJCERA's overall financial situation.

The table below compares SJCERA's fiduciary net position as of December 31, 2022 and 2021.

SJCERA Fiduciary Net Position

	2022	2021	INCREASE (DECREASE) AMOUNT	PERCENT CHANGE
Cash and Receivables	$ 285,084,691	$ 469,732,200	$ (184,647,509)	-39.31%
Investments	3,660,701,904	3,893,690,230	(232,988,326)	-5.98%
Other Assets	3,256,125	254,019	3,002,106	1,181.84%
TOTAL ASSETS	3,949,042,720	4,363,676,449	(414,633,729)	-9.50%
TOTAL LIABILITIES	131,289,958	164,888,445	(33,598,487)	-20.38%
TOTAL FIDUCIARY NET POSITION RESTRICTED FOR PENSION BENEFITS	$ 3,817,752,762	$ 4,198,788,004	$ (381,035,242)	-9.07%

REVENUES – ADDITIONS TO FIDUCIARY NET POSITION

The reserves needed to finance the retiree benefits are accumulated through the collection of employer and member contributions, and earnings on investments. The additions for the year ended December 31, 2022, totaled $(96.0) million. Net investment losses totaled $(412.8) million. The overall year 2022 revenues decreased by $1.0 billion from that of the prior year, primarily due to more investment losses.

Management's Discussion and Analysis

In 2022, the San Joaquin County (County), San Joaquin County (SJC) Mosquito and Vector Control District (MCVD), and SJC Superior Court paid additional contributions to decrease their proportionate share of the unfunded actuarial liability (UAL). Employer contributions decreased by $37.6 million, or 12.26 percent, over the prior year, and member contributions increased by $3.9 million, or 9.09 percent, over the prior year. The County and the majority of its members equally share the normal cost of pre-funding post-retirement cost-of-living adjustments. Some members also pay 114% or 133% of the basic member contribution rate, which reduces the employers' Normal Cost portion of the required contribution. Employers pay all of the required UAL amortization payment.

EXPENSES – DEDUCTIONS FROM FIDUCIARY NET POSITION

SJCERA's primary expenses are the payment of benefits to retirees and beneficiaries, the refund of contributions to former members, and the administrative costs. Expenses for the year 2022 totaled $285.0 million, an increase of 5.31 percent over 2021. The increase is primarily attributed to the annual cost-of-living adjustment to retirees' benefit payments and the growth in the number and average amount of benefits paid to retirees.

The table below compares SJCERA's Changes in Fiduciary Net Position.

Changes in Fiduciary Net Position

	2022	2021	INCREASE (DECREASE) AMOUNT	PERCENT CHANGE
ADDITIONS				
Employer Contributions	$ 269,080,047	$ 306,662,635	$ (37,582,588)	-12.26%
Member Contributions	47,405,308	43,455,640	3,949,668	9.09%
Net Investment Income (Loss) and Miscellaneous Income	(412,759,726)	572,291,948	(985,051,674)	-172.12%
Transfer from Healthcare Custodial Fund	224,628	270,570	(45,942)	-16.98%
TOTAL ADDITIONS	$ (96,049,743)	$ 922,680,793	$ (1,018,730,536)	-110.41%
DEDUCTIONS				
Retirement Benefit Payments	$ 272,424,374	$ 261,371,770	$ 11,052,604	4.23%
Death Benefits	760,072	608,396	151,676	24.93%
Refund of Contributions	6,179,349	3,985,433	2,193,916	55.05%
Administrative and Other Expenses	5,621,704	4,639,439	982,265	21.17%
TOTAL DEDUCTIONS	$ 284,985,499	$ 270,605,038	$ 14,380,461	5.31%
NET INCREASE (DECREASE)	$ (381,035,242)	$ 652,075,755	$ (1,033,110,997)	-158.43%
FIDUCIARY NET POSITION RESTRICTED FOR PENSION BENEFITS				
Beginning of Year	4,198,788,004	3,546,712,249	652,075,755	18.39%
End of Year	$ 3,817,752,762	$ 4,198,788,004	$ (381,035,242)	-9.07%

PLAN ADMINISTRATION

SJCERA MEMBERSHIP

The table below provides comparative SJCERA membership data for the last two years. Total membership as of December 31, 2022, was 15,727, an increase of 364 members, or 2.37 percent, compared to December 31, 2021.

SJCERA Membership

AS OF DECEMBER 31, 2022 AND 2021

	2022	2021	INCREASE (DECREASE) AMOUNT	PERCENT CHANGE
Active Members	6,381	6,347	34	0.54%
Retired Members	6,685	6,529	156	2.39%
Deferred Members	2,661	2,487	174	7.00%
TOTAL MEMBERSHIP	15,727	15,363	364	2.37%

ADMINISTRATIVE EXPENSES

The County Employees Retirement Law of 1937 (CERL) Section 31580.2 limits the Administrative Expense to twenty-one hundredths of one percent (0.21 percent) of the accrued actuarial liability (AAL) of the system.

The table below provides comparison of the actual administrative expenses for the calendar years ended 2022 and 2021. The AAL was used to calculate the statutory budget amount. SJCERA's administrative expenses were well below the limit imposed by CERL for both years.

Compliance with Statutory Limitation Administrative Expenses

AS OF DECEMBER 31, 2022 AND 2021
(Dollars in Thousands)

	2022	2021
BASIS FOR BUDGET CALCULATION (ACCRUED ACTUARIAL LIABILITY)		
Actual Administrative Expenses	$ 4,627	$ 3,665
Accrued Actuarial Liability as Basis for Budget Calculation*	5,207,669	5,013,632
ADMINISTRATIVE EXPENSES AS A PERCENTAGE OF		
The Basis for Budget Calculation	0.09%	0.07%
Limit per CERL	0.21%	0.21%

* Based on valuations dated January 1, 2021 and January 1, 2020, respectively.

ACTUARIAL VALUATIONS

SJCERA engages an independent actuarial firm, Cheiron, Inc., to perform an annual actuarial valuation to monitor its funding and funding integrity. The valuation assesses the magnitude of SJCERA's benefit commitments, in comparison with the assets expected to be available to support those commitments. The most recent annual actuarial valuation as of

Management's Discussion and Analysis

January 1, 2022, contains a detailed discussion of the funding requirements. This valuation is used for funding purposes and establishing employer and member contributions rates. As of January 1, 2022, the pension plan's accrued actuarial liabilities were $5.3 billion and the market value of assets net of Special Reserves (market value of assets basis) was $4.2 billion, resulting in UAL of $1.1 billion. The funded status (ratio) of market value of assets basis over accrued actuarial liabilities was 78.0 percent which increased from 68.1 percent. It also increased to 72.4 percent from 67.0 percent on an actuarial value of assets.

For the year ended December 31, 2022, a GASB Statement No. 67/68 report was prepared by Cheiron, Inc., to provide accounting and financial disclosure information. In order to accommodate the annual reporting requirements of our plan sponsors in a timely manner, the valuation was prepared using the January 1, 2022 valuation as the basis for calculating the total pension liability (TPL) and projected to December 31, 2022. Based on this actuarial valuation, the TPL was $5.5 billion compared to a fiduciary net position of $3.8 billion, resulting in the employers' net pension liability (NPL) of $1.7 billion and a fiduciary net position as a percentage of TPL of 69.2 percent. The NPL as a percentage of covered payroll was 351.07 percent. Please see the Note 8 for more details.

REPORTING SJCERA'S FIDUCIARY RESPONSIBILITIES

SJCERA's Board of Retirement and staff are fiduciaries for the pension plan. Accordingly, SJCERA is responsible for ensuring that the assets reported in the statements are used for the intended purpose of paying retirement benefits to the eligible members and beneficiaries.

CONTACTING SJCERA'S MANAGEMENT

This financial report is designed to provide the Board of Retirement, the membership, taxpayers, and investment managers with a general overview of SJCERA's finances and to show SJCERA's accountability for the money it receives. Any questions about this report, or need for additional financial information, can be addressed to SJCERA, 6 South El Dorado Street, Suite 400, Stockton, California 95202.

Respectfully Submitted,

Carmen Murillo
Financial Officer
May 25, 2023

Statement of Fiduciary Net Position

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
STATEMENT OF FIDUCIARY NET POSITION
AS OF DECEMBER 31, 2022 (WITH COMPARATIVE TOTALS)

	2022		2021	
	Defined Benefit Pension Plan	Post-Employment Healthcare Custodial Fund	Defined Benefit Pension Plan	Post-Employment Healthcare Custodial Fund
Assets				
Cash and Short-Term Investments				
Cash and Cash Equivalents	$ 141,351,530	$ 52,449	$ 323,434,089	$ 72,537
Cash Collateral - Securities Lending	125,564,604	-	84,977,773	-
Total Cash and Short-Term Investments	266,916,134	52,449	408,411,862	72,537
Receivables				
Investment Income Receivables	4,856,348	-	3,563,318	-
Contributions Receivable	12,924,613	-	11,131,624	-
Securities Sold, Not Received	308,690	-	46,579,831	-
Miscellaneous Receivables	78,906	-	45,565	-
Total Receivables	18,168,557	-	61,320,338	-
Investments, at Fair Value				
Aggressive Growth	358,058,142	-	320,476,667	-
Traditional Growth	1,316,293,371	-	1,542,821,008	-
Risk Parity	358,053,342	-	449,916,750	-
Credit	579,784,841	-	567,163,705	-
Crisis Risk Offset (CRO)	531,550,354	-	462,372,268	-
Principal Protection	278,165,455	-	330,858,456	-
Core Real Assets	238,796,399	-	220,081,376	-
Total Investments, at Fair Value	3,660,701,904	-	3,893,690,230	-
Other Assets				
Prepaid Expenses	112,740	-	99,975	-
Equipment and Fixtures, Net	3,143,385	-	154,044	-
Total Other Assets	3,256,125	-	254,019	-
Total Assets	3,949,042,720	52,449	4,363,676,449	72,537
Liabilities				
Securities Lending - Cash Collateral	2,354,013	-	78,775,961	-
Securities Purchased, Not Paid	125,564,604	-	84,977,773	-
Accrued Expenses and Other Payables	2,910,428	-	1,127,029	-
Securities Lending Interest and Other Payables	460,913	-	7,682	-
Total Liabilities	131,289,958	-	164,888,445	-
Fiduciary Net Position Restricted for Pension and Post-Employment Healthcare Benefits	$ 3,817,752,762	$ 52,449	$ 4,198,788,004	$ 72,537

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

Statement of Changes in Fiduciary Net Position

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
FOR THE YEAR ENDED DECEMBER 31, 2022 (WITH COMPARATIVE TOTALS)

	2022		2021	
	Defined Benefit Pension Plan	Post-Employment Healthcare Custodial Fund	Defined Benefit Pension Plan	Post-Employment Healthcare Custodial Fund
Additions				
Contributions				
Employer Contributions	$ 269,080,047	$ -	$ 306,662,635	$ -
Member Contributions	47,405,308	-	43,455,640	-
Employer Contributions to Healthcare Benefits	-	3,798,073	-	3,938,219
Total Contributions	316,485,355	3,798,073	350,118,275	3,938,219
Net Investment Income (Loss)				
Net Appreciation (Depreciation) in Fair Value of Investments	(430,790,861)	-	554,256,496	-
Interest	22,172,800	-	22,966,328	-
Dividends	13,078,024	-	10,179,197	-
Real Estate Income, Net	9,918,342	-	9,333,819	-
Investment Expenses	(27,241,048)	-	(25,722,039)	-
Miscellaneous Investment Income	359	-	39	-
Net Investment Income (Loss), Before Securities Lending Income	(412,862,384)	-	571,013,840	-
Securities Lending Income				
Earnings	2,405,593	-	388,378	-
Rebates	(2,258,901)	-	519	-
Fees	(125,574)	-	(97,171)	-
Net Securities Lending Income	21,118	-	291,726	-
Total Net Investment Income (Loss)	(412,841,266)	-	571,305,566	-
Miscellaneous Income	81,540	-	986,382	-
Transfer Between Plans	224,628	-	270,570	-
Total Additions	(96,049,743)	3,798,073	922,680,793	3,938,219
Deductions				
Benefit Payments	272,424,374	3,593,533	261,371,770	3,571,436
Death Benefits	760,072	-	608,396	-
Refunds of Member Contributions	6,179,349	-	3,985,433	-
Administrative Expenses				
General Administrative Expenses	4,627,135	-	3,664,872	-
Other Expenses				
Information Technology Expenses	335,386	-	163,828	-
Actuary Fees	167,671	-	206,203	-
Fund Legal Fees	491,512	-	604,536	-
Total Administrative and Other Expenses	5,621,704	-	4,639,439	-
Transfer Between Plans	-	224,628	-	270,570
Total Deductions	284,985,499	3,818,161	270,605,038	3,842,006
Changes in Fiduciary Net Position	(381,035,242)	(20,088)	652,075,755	96,213
Fiduciary Net Position Restricted for Pension and Post-Employment Healthcare Benefits				
Beginning of Year	4,198,788,004	72,537	3,546,712,249	(23,676)
End of Year	$ 3,817,752,762	$ 52,449	$ 4,198,788,004	$ 72,537

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

The San Joaquin County Employees' Retirement Association (SJCERA) is the public employee retirement system established by the County of San Joaquin (County) and is administered by the Board of Retirement of SJCERA (Board) to provide retirement, disability, and survivor benefits under the County Employees Retirement Law of 1937 (CERL) for the employees of the County and nine other participating employers within the County. SJCERA also administers the Post-Employment Healthcare Custodial Fund. Although the assets of the plans (defined benefit pension and post-employment healthcare) are commingled for investment purposes, each plan's assets may be used only for the payment of benefits to eligible members and beneficiaries of that plan, in accordance with the terms of the plan. A description of the Post-Employment Healthcare Custodial Fund is located in Note 2. All notes to the financial statements apply to both plans unless indicated otherwise.

NOTE 1 – DEFINED BENEFIT PENSION PLAN DESCRIPTION

A. GENERAL DESCRIPTION

SJCERA is a public retirement system established by the San Joaquin County Board of Supervisors effective June 28, 1946, under the provisions of the CERL and the Public Employees' Pension Reform Act of 2013 (PEPRA). SJCERA is administered by the Board. Pursuant to Government Code Sections 31520.1 and 31520.5, the Board consists of nine regular members, one alternate retired member, and under certain circumstances an alternate Safety member. Four members and the alternate member(s) are elected by SJCERA's members, four are appointed by the County Board of Supervisors, and the County Treasurer is an ex-officio member. Board members serve for a term of three years, except for the County Treasurer who is a permanent member. The Board members as of December 31, 2022, were as follows:

Michael Restuccia, Chair
Michael Duffy, Vice Chair
Raymond McCray, Secretary
Chanda Bassett
Jennifer Goodman
Phonxay Keokham
Steve Moore
Emily Nicholas
Robert Rickman
J.C. Weydert

SJCERA is a multiple-employer retirement system covering the County and the San Joaquin County (SJC) Historical Society and Museum, Local Agency Formation Commission (LAFCO), Lathrop-Manteca Rural Fire Protection District, San Joaquin County Law Library, SJC Mosquito and Vector Control District (MVCD), Mountain House Community Services District, SJC Superior Court, Tracy Public Cemetery District, and the Waterloo-Morada Rural Fire Protection District. All employees appointed to full-time, permanent positions with an SJCERA participating employer become SJCERA members. Persons who commence covered employment at age 60 or older may irrevocably elect to waive membership in SJCERA. Public Health, a division of the County's Healthcare Services Department, became a participant of SJCERA effective June 27, 1993. Prior to that date, they were members of the California Public Employees' Retirement System (CalPERS). The elected officials of the County may request to become members of SJCERA. All benefits vest after attaining five years of service credit.

Notes to the Financial Statements

SJCERA has two benefit tiers:

- Tier 1 - Hired into public service before January 1, 2013.
- Tier 2 - Hired into public service for the first time on or after January 1, 2013

There are two membership types:

1. **Safety Member —** Permanent employees engaged in the performance of active law enforcement, including probation officers and fire suppression employees, are considered Safety Members and are not generally covered by Social Security.
2. **General Member —** All other eligible employees not classified as Safety Members are considered General Members and are covered by Social Security.

MEMBERSHIP SUMMARY

SJCERA's membership as of December 31, 2022, is presented below:

	RETIREES		BENEFICIARIES		ACTIVE		DEFERRED		TOTAL	
	TIER 1	TIER 2	TIER 1	TIER 2	TIER 1	TIER 2	TIER 1	TIER 2	TIER 1	TIER 2
General	4,721	88	705	2	2,012	3,542	1,181	1,239	8,619	4,871
Safety	935	8	226	-	423	404	163	78	1,747	490
TOTAL	5,656	96	931	2	2,435	3,946	1,344	1,317	10,366	5,361

B. PLAN BENEFITS

ELIGIBILITY FOR RETIREMENT

TIER 1:

A Tier 1 member may retire for service at age 50 or older with five years of service credit, and at least ten years of membership. A General, Tier 1 member may retire at any age with 30 or more years of service credit. A Safety, Tier 1 member may retire at any age with 20 or more years of service credit.

TIER 2:

A Tier 2 member may retire for service with five or more years of service credit upon attaining the minimum retirement age: Age 52 for General, Tier 2 members, and Age 50 for Safety, Tier 2 members.

Any member of SJCERA, regardless of benefit tier, may retire at age 70 with no minimum service credit requirement.

RETIREMENT BENEFIT

The monthly benefit amount at retirement depends upon the type of membership, years of retirement service credit, final average compensation, age at retirement, and the benefit option elected by the member.

TIER 1:

For Tier 1 members, final average compensation for purposes of computing a retirement allowance is the average monthly salary for the highest twelve consecutive months of employment. In addition to base salary, final average compensation may include other items defined as compensation earnable for retirement purposes.

The benefit formula for General, Tier 1 members is 2.6 percent of final average compensation for each year of service credit at age 62. The formula for Safety, Tier 1 members is 3.0 percent of final average compensation for each year of service credit at age 50 effective January 1, 2001. Members who retired prior to April 1, 1982, with 15 years or more of County service, receive an additional $50 monthly supplement commencing at age 65. Members who retired on or after April 1, 1982, but before January 1, 2001, receive a supplemental monthly benefit of $10 per year of service up to 30 years. This "Post 1982" supplemental benefit is payable if sufficient funds exist.

Federal law limits the annual compensation that may be used to calculate retirement benefits (applicable to persons who became SJCERA members on or after January 1, 1996), and the maximum annual benefit payable by SJCERA to any retired member. For 2022, the annual compensation limit under Internal Revenue Code Section 401(a)(17) is $305,000 and the annual benefit limit under Internal Revenue Code Section 415(b) is $245,000. Retired members whose statutory benefits from SJCERA would exceed the annual benefit limitation are eligible for the County's Replacement Benefit Plan.

TIER 2:

For Tier 2 members, final average compensation for purposes of computing a retirement allowance is the average monthly salary for the highest 36 consecutive months of employment. In addition to base salary, final average compensation may include other items defined as pensionable compensation.

The benefit formula for General, Tier 2 members is 2.5 percent of final compensation for each year of service credit at age 67. The formula for Safety, Tier 2 members is 2.7 percent of final compensation for each year of service credit at age 57. PEPRA specifies the maximum annual compensation that may be used to calculate retirement benefits. The limits are adjusted annually based on changes in the Consumer Price Index (CPI). For 2022, the Tier 2 annual compensation limit is $134,974 for those included in the Federal Social Security System and $161,969 for those not included.

COST-OF-LIVING ADJUSTMENT (COLA)

For both Tier 1 and Tier 2 members, monthly allowances are eligible for an annual COLA based on the change in the CPI for the San Francisco-Oakland-Hayward area for the previous calendar year, up to a maximum of 3.0 percent. The Bureau of Labor Statistics does not publish a CPI for San Joaquin County. When the CPI exceeds 3.0 percent in any year, the difference between the actual change in CPI (rounded to the nearest one-half percent) and the 3.0 percent ceiling is "accumulated" for future years when the change is less than 3.0 percent. Based on the accumulated carry-over balances as of April 1, 2021, members who retired prior to April 2, 1986, received a 3.0% increase on April 1, 2022. Their accumulated carry-over balances were reduced by 1.5%. Members who retired on or after April 2, 1986, received a 3.0% increase on April 1, 2022. Their accumulated carry-over balances were reduced by 0.5%.

TERMINATED MEMBERS' DEFERRED RETIREMENT BENEFIT AND WITHDRAWAL OF CONTRIBUTIONS

A member leaving employment with at least five years of service credit becomes eligible for a retirement benefit once they meet the minimum service retirement age and have not withdrawn their accumulated member contributions.

Members who terminate employment with fewer than five years of service credit may leave their accumulated contributions on deposit until they become eligible for a retirement benefit at age 70. Contributions left on deposit with SJCERA continue to accrue interest.

Upon termination of employment, members may withdraw their member contributions plus interest. Employer-paid contributions are not refundable. Members who take a refund of contributions become ineligible for future SJCERA retirement benefits.

DEATH BENEFITS

The beneficiary of an actively employed member who dies prior to attaining five years of credited service is refunded the member's accumulated contributions, with interest, and receives one month's salary for each full year of service, up to a maximum of six months' salary.

If the death occurs after five years of credited service and is not the result of a service-related injury or disease, the surviving spouse or minor children may elect to receive a lump sum benefit of the retirement contributions including interest and one month's salary for each full year of service up to six months' salary; 60 percent of the retirement allowance the deceased member would have received if they had retired with a nonservice-connected disability retirement benefit on the date of death; or a lump sum payment of six months' salary and a reduced monthly retirement benefit. The monthly allowance to minor children is discontinued once they marry or reach age 18 (age 22 if a full-time student).

The beneficiary of a deferred member receives the member's contributions plus accumulated interest.

Upon the death of a retiree, the beneficiary receives a retirement benefit as determined by the benefit option elected by the member at the time of retirement. In addition, the beneficiary also receives a $5,000 death benefit, which is paid from retirement reserves.

NOTE 2 – POST-EMPLOYMENT HEALTHCARE CUSTODIAL FUND

The Post-Employment Healthcare Custodial Fund accounts for assets held as an agent on behalf of others. The funds held within the Post-Employment Healthcare Custodial Fund do not meet the definition of a qualifying Other Post-Employment Benefits (OPEB) Trust under Governmental Accounting Standards Board (GASB) Statement No. 74. This fund is custodial in nature and does not measure the results of operations. GASB Statement No. 84, Fiduciary Activities, was implemented in 2019. The Post-Employment Healthcare Fund is classified as a Custodial Fund.

The Post-Employment Healthcare Custodial Fund is used as a clearing account for cash flows from employers to fund Sick Leave Bank Benefits for their eligible retired members on a pay-as-you-go basis, and for cash flows out for payment of Sick Leave Bank Benefits. The Sick Leave Bank Benefit allows accumulated unused and un-cashed sick leave to be converted to a Sick Leave Bank upon retirement at a rate of $27.65 per hour. Retired or deferred members who were employed prior to August 27, 2001, are eligible for Sick Leave Bank Benefits. In 2007, the San Joaquin County Superior Court (Court) extended eligibility for Sick Leave Bank Benefits to Court employees hired on or after August 27, 2001. Employers fund the Sick Leave Bank Benefits and employees are not required to contribute to the plan.

Sick Leave Bank Benefits may be used to pay for employer-sponsored group health, dental, and vision care insurance premiums and/or reimbursement of Medicare Part B premiums for the eligible members, their spouses, and dependents. When a retiree's Sick Leave Bank is depleted, the retiree assumes responsibility for payment of health, dental, and vision care insurance premiums.

SJCERA allocates the investments held at December 31, 2022, between the Defined Benefit Pension Plan and the Post-Employment Healthcare Custodial Fund based on the internal records of the respective accounts at December 31, 2022.

NOTE 3 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES – PENSION PLAN

A. BASIS OF ACCOUNTING

SJCERA's financial statements are presented on the accrual basis of accounting. Employer and member contributions that should have been made in the calendar year based on the actuarially determined contribution rates or amounts are recognized as revenues of that calendar year. Contributions receivable pursuant to an installment contract are also recognized in full in the year in which the contract is made. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan.

B. REPORTING ENTITY

SJCERA, governed by the Board, is an independent government entity. SJCERA's annual financial statements are included in the County's financial reports as a pension trust fund.

Notes to the Financial Statements

C. CASH EQUIVALENTS

SJCERA's cash and short-term investments are managed by The Northern Trust Company (NT) and the County Treasurer.

THE NORTHERN TRUST COMPANY

Cash not required for daily operations is deposited with NT, SJCERA's master custodian for investment securities. NT pools cash from its clients pending permanent investment in its Short-Term Investment Fund (STIF). The cash in the STIF account is invested in high-grade money market instruments with very short maturities, such as bonds, notes, and other evidence of indebtedness, in accordance with SJCERA's investment policy.

The cash collateral received under the securities lending program is invested by NT through its securities lending collateral fund, which is created solely for the investment of cash collateral.

COUNTY TREASURER

Cash necessary for SJCERA's daily operations is pooled with other County funds for short-term investment by the County Treasurer. The County is responsible for the control and safekeeping of all instruments of title and for all investment of the pooled funds.

D. METHOD USED TO VALUE INVESTMENTS

Investments are carried at fair value. Fair values for investments are derived by various methods as indicated in the following table.

INVESTMENTS	SOURCE
Publicly traded stocks and bonds, and issues of the U.S. Government and its agencies	Most recent sales price as of the fiscal year-end. International securities reflect currency exchange rates in effect at December 31, 2022.
Mortgages	Equivalent pricing to comparable Government National Mortgage Association (GNMA).
Real estate equity funds	Fair value as provided by real estate fund manager.
Real estate title holding corporations and limited liability companies	Fair value of the investment as provided by fund managers, unless an alternative value has been determined by the Board per SJCERA's Real Estate Investment Policy and reviewed by SJCERA's Investment Consultant.
Private equity	Fair value as provided by the investment manager and reviewed by SJCERA's Investment Consultant.
Private placement bonds	Face value of the security subject to designated conditions such as sales restrictions or limited marketability.

E. CAPITAL ASSETS

Capital assets, mainly leasehold improvements, furniture, and equipment, acquired by SJCERA are capitalized at cost. Depreciable capital assets are depreciated using the straight-line method over estimated useful lives of three to seven years for computer equipment, furniture, and other equipment. Leasehold improvements are amortized over the life of the lease. Depreciation expenses of the capital assets are included in general administrative expenses.

The change in capital assets owned for the year ended December 31, 2022, is presented below.

	BALANCE DECEMBER 1, 2021	ADDITIONS	DELETIONS	BALANCE DECEMBER 31, 2022
Original Cost	$ 1,684,360	$ 3,236,903	$ (312,231)	$ 4,609,032
Accumulated Depreciation and Amortization	(1,530,316)	(247,562)	312,231	(1,465,647)
NET BOOK VALUE	$ 154,044	$ 2,989,341	$ -	$ 3,143,385

Depreciation and amortization expense for the year ended December 31, 2022, was $247,562.

F. RECEIVABLES

Receivables consist primarily of interest, dividends, investments in transition (traded but not yet settled), and contributions owed by participating employers. Contributions receivable pursuant to an installment contract between the member and SJCERA for purchase of service credit are recognized in full in the year in which the contract is made.

G. 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.

NOTE 4 – CASH AND INVESTMENTS

A. INVESTMENT IN SECURITIES LENDING PROGRAM

SJCERA participates in NT's pooled securities lending program. Under the agreement, NT is authorized to lend the SJCERA securities that it holds to certain SJCERA-approved borrowers. NT does not have the ability to pledge or sell collateral securities unless a borrower default occurs.

All loans are fully collateralized with either cash, securities issued or fully guaranteed by the U.S. government, or irrevocable bank letters of credit. All collateral is held or invested by NT. The term or maturity of the securities loaned is generally matched with the term or maturity of the investment of the cash collateral. U.S. securities are loaned with collateral valued at 102 percent of the fair value of the securities plus any accrued interest. Non-U.S. securitiesare loaned with collateral valued at 105 percent of the fair value of the securities plus any accrued interest.

As of December 31, 2022, SJCERA had the following securities out on loan.

	FAIR VALUE OF SECURITIES LENT	CASH COLLATERAL VALUE	NON-CASH COLLATERAL VALUE
U.S. Equities	$ 12,182,740	$ 11,552,530	$ 971,748
U.S. Debt Securities	128,248,922	113,015,222	18,400,670
TOTAL U.S. SECURITIES	$ 140,431,662	$ 124,567,752	$ 19,372,418
Non-U.S. Equities	$ 3,492,308	-	$ 3,727,736
Non-U.S. Debt Securities	38,472,805	996,852	39,845,486
TOTAL NON-U.S. SECURITIES	$ 41,965,113	996,852	$ 43,573,222
TOTAL	$ 182,396,775	$ 125,564,604	$ 62,945,640

The cash collateral is reported on the financial statements as an asset and as a liability of SJCERA. Securities lending transactions collateralized by letters of credit or by securities that SJCERA does not have the ability to pledge or sell unless the borrower defaults are not be reported as assets and liabilities in accordance with GASB Statement No. 28. The potential risks involved in the securities lending program include borrower bankruptcy, collateral deficiencies, settlement problems, corporate actions, dividends, and interest. SJCERA's pro-rata share of net income derived from NT's pooled securities lending transactions in 2022 was $351,039. As of December 31, 2022, there was no credit risk exposure to borrowers because the collateral exceeded the amount borrowed. The securities on loan at year-end were $182 million and the collateral received for those securities on loan was $188 million.

B. CASH AND SHORT-TERM INVESTMENTS

The carrying value of cash and short-term investments as of December 31, 2022, consists of the following.

		AMOUNT
Cash and Cash Equivalents – Custodian	$	141,361,593
Cash and Cash Equivalents – County Treasury		42,386
TOTAL CASH AND CASH EQUIVALENTS	$	141,403,979
Cash Collateral – Securities Lending – Custodian		125,564,604
TOTAL CASH AND SHORT-TERM INVESTMENTS	$	266,968,583

C. LONG-TERM INVESTMENTS

SJCERA owned the following long-term investments as of December 31, 2022.

		FAIR VALUE
INVESTMENTS – CATEGORIZED		
Aggressive Growth	$	358,058,142
Traditional Growth		1,316,293,371
Risk Parity		358,053,342
Credit		579,784,841
Crisis Risk Offset (CRO)		531,550,354
Principal Protection		278,165,455
Core Real Assets		238,796,399
TOTAL INVESTMENTS - CATEGORIZED	$	3,660,701,904
INVESTMENTS – NOT CATEGORIZED		
Investments Held by Broker-Dealers Under Securities Loans		
U.S. Equities	$	11,552,530
U.S. Debt Securities		113,015,222
Non-U.S. Debt Securities		996,852
TOTAL INVESTMENTS HELD BY BROKER-DEALERS UNDER SECURITIES LOANS	$	125,564,604
TOTAL INVESTMENTS	$	3,786,266,508

GASB Statement No. 40, *Deposits and Investments Risk Disclosures*, establishes and modified disclosure requirements related to the following:

- Credit risk
- Custodial credit risk
- Concentration of credit risk
- Interest rate risk
- Foreign currency risk

Notes to the Financial Statements

CREDIT RISK

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. SJCERA's investment policy seeks to maintain a diversified portfolio of fixed income instruments in order to obtain the highest total return for the fund at an acceptable level of risk within the asset class. To control such risk, credit quality guidelines have been established for the separately managed accounts. The following table depicts the value of the investments exposed to those risks and the corresponding credit ratings from Standard & Poor's (S&P) as of December 31, 2022.

QUALITY RATINGS	FAIR VALUE
AAA	$ 140,933,748
AA	5,722,873
A	25,981,796
BAA	80,431,953
BA	20,326,384
B	17,924,561
CAA	3,721,386
CA	102,384
C	83,750
Not Rated	371,477,256
SUBTOTAL	$ 666,706,091
U.S. Government Agencies - Implied AAA (FNMA, FHLB, FHLMC, FFCB, SLMA, Other)	191,244,205
TOTAL INVESTMENTS IN FIXED INCOME SECURITIES	$ 857,950,296

CUSTODIAL CREDIT RISK

The custodial credit risk represents the risk that, in the event of the failure of the counterparty of a transaction, SJCERA will not be able to recover the value of deposits and investments or collateral securities that are in the possession of an outside party.

DEPOSITS

The deposits with the County Treasurer are uninsured but secured by public funds ofthe pledging banks. The pool's investments, all held in the County's name, are short-termand include U.S. Treasury Bills, certain Federal agencies' instruments, bankers' acceptances, "prime" commercial paper, certificates of deposit, repurchase agreements, and the State Treasurer's Local Agency Investment Fund.

The cash deposits with NT are uninsured and uncollateralized. All underlying investments in the commingled STIF account are not registered in SJCERA's name.

INVESTMENTS

Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in SJCERA's name, and held by the counterparty. SJCERA's investment securities are not exposed to custodial credit risk because all securities are held by SJCERA's custodial bank in SJCERA's name, or by other qualified third party administrator trust accounts.

CONCENTRATION OF CREDIT RISK

This risk represents the potential loss attributable to the magnitude of SJCERA's investments in a single issuer. As of December 31, 2022, for separately managed investment accounts, SJCERA did not hold any investments within any one issuer that would represent five percent (5%) or more of plan fiduciary net position.

INTEREST RATE RISK

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

As of December 31, 2022, SJCERA had the following interest rate sensitive investments.

INVESTMENT TYPE	FAIR VALUE		WEIGHTED AVERAGE MATURITY – YEARS
U.S. GOVERNMENT AND AGENCY INSTRUMENTS			
U.S. Government Mortgages	$	77,935,270	28.69
U.S. Government Bonds		146,584,754	18.00
Municipal / Revenue Bonds		2,603,787	15.72
Government Agencies		6,061,529	17.48
Short-Term Bills and Notes		97,491,962	0.36
TOTAL U.S. GOVERNMENT AND AGENCY INSTRUMENTS	$	330,677,302	
CORPORATE SECURITIES			
Asset Backed Securities	$	21,111,448	16.60
Commercial Mortgage-Backed Securities		10,416,439	13.25
Corporate Bonds		141,938,305	11.89
Corporate Convertible Bonds		1,676,156	31.63
Non-Government Backed CMOs		419,115	23.53
TOTAL CORPORATE SECURITIES	$	175,561,463	
REAL ESTATE FINANCING		351,711,531	
TOTAL FIXED INCOME SECURITIES	$	857,950,296	

FOREIGN CURRENCY RISK

Foreign currency risk is the risk that changes in exchange rates may adversely affect the fair value of an investment. SJCERA's external non-U.S. equity and fixed income investment managers may invest in international securities in accordance with their investment guidelines pertaining to these types of investments.

Notes to the Financial Statements

Currency hedging on an unleveraged basis is permitted by non-U.S. equity managers as a strategy to protect against losses due to currency translations (defensive hedging). However, it is expected that the primary sources of added value for non-U.S. equity investment managers will be stock and country selection, with currency management focused on limiting losses due to fluctuations in currency values. Managers may purchase or sell currency on a spot basis to accommodate securities settlements.

Managers may invest in developed market currencies and emerging market currencies in accordance with their investment guidelines. Permitted derivative instruments are currency spots, currency forward contracts (deliverable or non-deliverable), currency futures, options on currency forwards or futures, and currency swaps. Other investments, contracts, or positions that, in the managers' judgment, are of similar purpose and character and equal credit quality and marketability to any of the investments above, are also permissible.

SJCERA's exposure to foreign currency risk in U.S. dollars as of December 31, 2022, follows.

CURRENCY	FAIR VALUE
British Pound Sterling	$ 3
Canadian Dollar	971,963
Euro Currency	91,447
TOTAL	$ 1,063,413

D. FAIR VALUE MEASUREMENT

In accordance with GASB Statement No. 72, fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The statement establishes a fair value hierarchy based on three types of input to develop the fair value measurements for investments. The level is determined based on the lowest level of input significant to the measurement in its entirety.Assets and liabilities measured at fair value are classified into one of the following categories:

FAIR VALUE HIERARCHY

Level 1 – reflects unadjusted quoted prices in active markets for identical assets or liabilities accessible on the measurement date. Observable markets include exchange markets, dealer markets, and brokered markets.

Level 2 – reflects similar observable inputs other than quoted market prices. It includes quoted prices for similar assets in active markets or quoted prices for identical or similar assets in inactive markets.

Level 3 – reflects prices based on unobservable sources. They should be used only when relevant Level 1 and Level 2 inputs are unavailable.

The following table presents fair value measurements as of December 31, 2022.

INVESTMENTS BY FAIR VALUE LEVEL	TOTAL FAIR VALUE	QUOTED PRICES IN ACTIVE MARKETS FOR IDENTICAL ASSETS (LEVEL 1)	SIGNIFICANT OTHER OBSERVABLE INPUTS (LEVEL 2)	SIGNIFICANT UNOBSERVABLE INPUTS (LEVEL 3)
EQUITIES				
Common Stocks	$ 41,513,032	$ 41,487,844	$ 5,844	$ 19,344
Preferred Stocks	718,520	718,520	-	-
TOTAL EQUITIES	$ 42,231,552	$ 42,206,364	$ 5,844	$ 19,344
FIXED INCOME				
Asset Backed Securities	$ 21,111,448	-	$ 21,111,448	-
Commercial Mortgage-Backed Securities	10,416,439	-	10,416,439	-
Corporate Bonds	141,938,305	-	141,938,305	-
Corporate Convertible Bonds	1,676,156	-	1,676,156	-
Funds – Corporate Bonds	59,719,042	43,102,549	16,616,493	-
Funds – Fixed Income ETF	15,618,650	15,618,650	-	-
Government Agencies	6,061,529	-	6,061,529	-
Government Bonds	146,584,754	-	146,584,754	-
Government Mortgage-Backed Securities	77,935,270	-	77,935,270	-
Municipal/Provincial Bonds	2,603,787	-	2,603,787	-
Non-Government Backed CMOs	419,115	-	419,115	-
Other Fixed Income	90,176,224	-	-	90,176,224
TOTAL FIXED INCOME	$ 574,260,719	$ 58,721,199	$ 425,363,296	$ 90,176,224
OTHER ASSETS				
Short-Term Bills and Notes	$ 99,986,745	$ 1,316,938	$ 98,669,807	-
Option Contracts	914	-	-	914
Swaps	396,860	-	396,860	-
TOTAL OTHER ASSETS	$ 100,384,519	$ 1,316,938	$ 99,066,667	$ 914
Collateral from Securities Lending	125,564,604	-	125,564,604	-
TOTAL INVESTMENTS BY FAIR VALUE LEVEL	$ 842,441,394	$ 102,244,501	$ 650,000,411	$ 90,196,482
INVESTMENTS MEASURED AT THE NET ASSET VALUE (NAV)				
Global Equities Funds	$ 1,218,782,828			
Emerging Markets Global Equity	80,881,423			
Fixed Income Funds	145,812,348			
Private Credit	194,131,106			
Risk Parity Funds	358,053,342			
Multi-Strategy Funds	296,710,835			
Hedge Funds – Fixed Income	14,598,388			
Private Equity Funds	275,731,811			
Private Real Estate Funds	359,123,033			
TOTAL INVESTMENTS MEASURED AT NAV	$ 2,943,825,114			
TOTAL INVESTMENTS	$ 3,786,266,508			

Notes to the Financial Statements

INVESTMENTS MEASURED AT NET ASSET VALUE (NAV)

SJCERA measures certain investments that do not have a readily determinable fair value, such as hedge funds, commingled funds, and private equity funds, using NAV as a practical expedient. The SJCERA investments valued at NAV are the majority holdings for SJCERA portfolio. The following table presents the unfunded commitments, redemption frequency (if currently eligible), and the redemption notice period for SJCERA investments measured at NAV.

The following table presents the investments measured at NAV as December 31, 2022.

INVESTMENTS MEASURED AT NAV	FAIR VALUE	UNFUNDED COMMITMENT	REDEMPTION FREQUENCY IF CURRENTLY ELIGIBLE	REDEMPTION NOTICE PERIOD
Global Equity Funds	$ 1,218,782,828	$ -	Daily, Weekly, Semi-Monthly, Monthly	1-30 Days
Emerging Markets Global Equity	80,881,423	-	Weekly	T-4 Days
Fixed Income Funds	145,812,348	26,079,466	Daily, Not Eligible	1 Day
Private Credit	194,131,106	56,674,116	Not Applicable	Not Applicable
Risk Parity Funds	358,053,342	-	Monthly	5-15 Days
Multi-Strategy Funds	296,710,835	-	Daily, Weekly, Semi-Monthly, Monthly	0-15 Days
Hedge Funds - Fixed Income	14,598,388	12,717,985	Daily, Quarterly, Not Eligible	0-60 Days
Private Equity Funds	273,731,811	44,990,608	Not Eligible	Not Applicable
Private Real Estate Funds	359,123,033	199,499,885	Quarterly, Not Eligible	5-90 Days, Not Applicable
TOTAL INVESTMENTS MEASURED AT NAV	$ 2,943,825,114	$ 339,912,060		

Global Equity Funds – Assets within these funds represent shares of ownership in U.S. and international corporations, including publicly traded common stocks, American and Global Depository Receipts, as well as Real Estate Investment Trusts (REITS).

Emerging Markets Global Equity – Assets within this segment represent a diversified portfolio seeking to identify growing countries and the companies that complement our core Equity holdings.

Fixed Income Funds – Funds within this segment represent debt instruments of corporations, government or agencies characterized by a fixed or variable interest rate and stated maturity date, including marketable bonds.

Private Credit – Assets within this segment are defined by non-bank lending where the debt is not issued or traded on the public markets.

Risk Parity Funds – Funds within this segment represent portfolios that seek to balance the risk characteristics of assets across multiple segments. These portfolios generally invest in equities, bonds and commodities among other assets.

Multi-Strategy Hedge Funds – Funds within this segment can involve holding both long and short positions in securities instead of traditional long-only investments in publicly traded investments. Portfolios also may utilize derivatives or hedging strategies as well. Multi-Strategy managers utilized various investment segments to invest, including but not limited to, equities, bonds, currency, and commodities.

Fixed Income Hedge Funds – Funds within this segment can involve holding both long and short positions in securities instead of traditional long-only investments in publicly traded investments. Portfolios also may utilize derivatives or hedging strategies as well. These investment funds generally focus on opportunities within fixed income markets.

Private Equity Funds – These funds are illiquid allocations that invest primarily in buyout funds, venture capital, and debt/special situations. These funds are not eligible for redemption and investment periods are generally between five and 15 years.

Private Real Estate Funds – These funds are defined as those investments that are unleveraged or leveraged positions in real property. The portfolio may pursue direct privately held partnership interests, fund-of-funds interests, and direct holdings for its real estate allocation.

E. SUMMARY OF INVESTMENT POLICY

The CERL vests the Board with exclusive control over SJCERA's investment portfolio. The Board established investment policies in accordance with applicable local, State, and Federal laws. The Board members exercise authority and control over the management of SJCERA's assets by setting policy, which the staff executes either internally or through the use of external prudent experts. The Board provides oversight and guidance subject to the following basic fiduciary responsibilities:

- Solely in the interest of, and for the exclusive purpose of, providing economic benefits to participants and their beneficiaries.
- With the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with these matters would use in the conduct of an enterprise of a like character with like objectives.
- Diversify the investments of the plans so as to minimize the risk of loss and to maximize the rate of return, unless under the circumstances, it is clearly prudent not to do so. Diversification is applicable to the deployment of the assets as a whole.

F. TARGET ASSET ALLOCATION

The Board completed an asset-liability study during 2022, facilitated by its investment consultant, Meketa Investment Group, and its consulting actuary, Cheiron, Inc. A key aspect of the study was the Board's consensus on how it defines risk and determining its tolerance for risk, which plays a significant role in the selection of the policy mix of assets that comprise the strategic asset allocation for the investment program.

Notes to the Financial Statements

On June 30, 2022, the Board adopted a revised strategic asset allocation policy for SJCERA's investments. On July 8, 2022, the Board adopted an Implementation Plan which describes how the new strategic allocation is to be implemented. The Implementation Plan uses an "evolving policy" framework which allows the portfolio to be adjusted over time, with a target completion deadline of June 30, 2024. The plan also notes that SJCERA will move faster, depending on market conditions.

The strategic asset allocation is expected to improve the likelihood of the plan accomplishing its primary financial objective: to earn a long-term return that, coupled with projected contributions, is projected to be sufficient to attain full funding in the long-term while avoiding substantial deterioration in funded status along the way.

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
CURRENT ASSET ALLOCATION POLICY

ASSET CLASS	POLICY ALLOCATION PERCENTAGE	PURPOSE	MAIN RISK EXPOSURES
Aggressive Growth	16.00%	Return	Growth
Traditional Growth	34.00%	Return	Growth, Currency
Risk Parity	6.00%	Balanced Return	Growth, Interest Rates, Inflation
Credit	15.00%	Income, Growth	Growth
Core Real Assets	9.00%	Income, Growth	Growth, Interest Rates
Principal Protection	7.00%	Income, Stability	Interest Rates
Crisis Risk Offset (CRO)	13.00%	Return and Liquidity during a Growth Crisis	Interest Rates, Variable based on Trends, Alternative Factor Risks
	100.00%		

NOTE 5 – DERIVATIVE FINANCIAL INSTRUMENTS

The Board has authorized certain investment managers to invest in, or otherwise enter into, transactions involving derivative financial instruments when such transactions are consistent with the investment objectives established for a specific investment manager's assignment. A professional investment consultant is employed to monitor and review each investment manager's securities and derivative position as well as the manager's performance relative to established benchmark rates of return and risk measures. Derivative activities must be evaluated within the context of the overall portfolio performance and cannot be evaluated in isolation.

Investment derivatives involve the following types of risks.

Market Risk: Market risk is the risk of change in value of an instrument in response to changes in a market price or index. While all investments are subject to market risk, derivatives often have a higher degree of market risk than other types of investment instruments. Values of cash securities containing derivative features are often more susceptible to market risk than other types of fixed income securities because the amounts and/or timing of their scheduled cash flows may fluctuate under changing market conditions, according to their contractual terms. For other types of derivatives, amounts of contractual cash flows may be either positive or negative depending upon prevailing market conditions relative to the reference prices or rates, and thus the values of such instruments may be positive or negative, despite the fact that little or no cash is initially exchanged to enter into such contacts.

Credit Risk: Credit risk of cash securities containing derivative features is based upon the credit worthiness of the issuers of such securities. It includes the risk that counterparties to contracts will not perform and/or the public exchange will not meet its obligation to assume this counterparty risk. Exchange traded derivatives are generally considered to be of lower credit risk than over-the-counter derivatives due to the exchange's margin requirements. The derivative investments are exchange traded, and credit risk is limited to the clearing corporation. As of December 31, 2022, collateral for derivatives was $8.4 million. This represents the maximum loss that would be recognized at the reporting date if all counterparties failed to perform as contracted.

Interest Rate Risk: Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. Interest rate swaps are an example of an investment that has a fair value that is highly sensitive to interest rate changes. SJCERA is exposed to interest rate risk in the form of futures contracts and option contracts in the following global government bond markets.

Interest Rate Risk
AS OF DECEMBER 31, 2022

GLOBAL BONDS	FUTURES CONTRACTS	OPTION CONTRACTS
Canadian Government Bond	$ (29,971,960)	$ -
Long Gilt	(29,539,481)	-
Japanese Government Bond	(3,331,781)	-
Euro Bond	(30,294,661)	-
U.S. Ten Year Notes	40,116,977	-
British Pound Sterling	42,241,625	(467,138)
TOTAL	$ (10,779,281)	$ (467,138)

Notes to the Financial Statements

SJCERA measures derivative interest rate risk using duration with varying maturities of less than three months to more than 10 years. At December 31, 2022, SJCERA had the following investment derivative interest rate risks.

Interest Rate Risk Analysis
AS OF DECEMBER 31, 2022
(Dollars in Thousands)

DERIVATIVE TYPE	NOTIONAL VALUE	FAIR VALUE	< 3 MONTHS	3 TO 6 MONTHS	6 TO 12 MONTHS	1 TO 5 YEARS	5 TO 10 YEARS	10+ YEARS
Futures Contracts	$ (170,679)	$ -	$ (170,679)	$ -	$ -	$ -	$ -	$ -
Swap Agreements	-	396	-	-	-	396	-	-
Credit Contracts	-	-	-	-	-	-	-	-
TOTAL	$ (170,679)	$ 396	$ (170,679)	$ -	$ -	$ 396	$ -	$ -

Foreign Currency Risk: Foreign currency risk is the risk that changes in currency exchange rates will adversely affect the fair value of an investment. Currency forward contracts represent foreign exchange contracts that are used to control currency exposure and facilitate the settlement of international security purchase and sale transactions. As of December 31, 2022, SJCERA had the derivative foreign currency exposures listed in the table below.

Foreign Currency Risk Analysis
AS OF DECEMBER 31, 2022

CURRENCY	FUTURES CONTRACTS	EQUITY CONTRACTS	OPTION CONTRACTS
Australian Dollar	$ (19,802,650)	$ -	$ -
British Pound Sterling	(19,787,550)	-	-
Canadian Dollar	(19,588,800)	1,899,539	-
Euro Currency	(18,281,800)	-	-
Japanese Yen	(20,712,563)	-	(205,150)
Swiss Franc	16,353,000	-	-
TOTAL	$ (81,820,363)	$ 1,899,539	$ (205,150)

Derivatives are carried as assets when the fair value is positive, and as liabilities when the fair value is negative. Gains and losses from derivatives are included in net investment income (loss). For financial reporting purposes, all SJCERA derivatives are classified as investment derivatives.

Derivative financial instruments held by SJCERA from time to time consist of the following.

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.

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.

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.

All investment derivative positions are included as part of investments at fair value on the Statement of Fiduciary Net Position. All changes in fair value are reported as part of net appreciation/(depreciation) in fair value of investments in the Statement of Changes in Fiduciary Net Position. Investment information was provided either by SJCERA's investment managers or SJCERA's custodian bank. The Investment Derivatives schedule below is classified by type and reports the fair value balances and notional amounts of derivatives outstanding as of and for the year ended December 31, 2022.

Investment Derivatives

AS OF DECEMBER 31, 2022

DERIVATIVE TYPE	NOTIONAL AMOUNT	FAIR VALUE
Futures Contracts	$ (81,269,014)	$ 17,464,572
Option Contracts	(4,587,401)	3,101,628
TOTAL	$ (85,856,415)	$ 20,566,200

NOTE 6 – CONTRIBUTIONS REQUIRED AND CONTRIBUTIONS MADE

DEFINED BENEFIT PENSION PLAN

The funding objective of the plan is to establish contribution rates that, together with investment earnings, will provide sufficient assets to pay all benefits under the plan. The County and participating employers are required to contribute a percentage of their annual covered payroll at actuarially determined rates. Actuarial valuations involve estimates and make assumptions about the probability of events far into the future; therefore, actuarially determined rates are subject to continual revision as results are compared to past expectations and new estimates are made about the future.

EMPLOYER CONTRIBUTIONS

For 2022, the required employer contribution rates including normal cost and amortization of the unfunded actuarial liability (UAL) were determined by using the valuation report as of January 1, 2021.

In 2022, the County made additional $22,088,131 contributions. The Court made additional $500,000 contributions to decrease its share of the UAL. MVCD made additional $90,000 contributions to decrease its share of the UAL. These additional annual contributions decrease only that individual employer's share of the UAL and not the liability for other entities participating in SJCERA.

The total market value of the additional contributions, including prior year amounts and accumulated with interest at the plan's actual rate of return, was $184,202,499 as of December 31, 2022. These assets are included in the calculation of the UAL and funded ratio. However, under the funding policy with respect to these reserves requested by the contributors and approved by the Board, these assets are not currently included in the calculation of the employer contribution rates.

Employer Retirement Contribution Rates
EXPRESSED AS A PERCENTAGE OF ACTIVE MEMBER PAYROLL

	2022 (PER 1/1/2021 VALUATION)		
	NORMAL COST	UAL AMORTIZATION	TOTAL
TIER 1			
For General Members			
Paying Basic Rate Only (G.C. 31621.3)	19.82%	30.60%	50.42%
Paying Basic Rate with COLA Cost Share	16.93%	30.60%	47.53%
Paying 114% of Basic Rate with COLA Cost Share	16.37%	30.60%	46.97%
For Safety Members			
Paying Basic Rate Only (G.C. 31639.5)	32.77%	63.73%	96.50%
Paying Basic Rate with COLA Cost Share	27.69%	63.73%	91.42%
Paying 133% of Basic Rate with COLA Cost Share	26.07%	63.73%	89.80%
Composite Total for General and Safety Combined			
Paying Basic Rate Only (G.C. 31621.3)	22.35%	36.98%	59.33%
Paying Basic Rate with COLA Cost Share	19.03%	36.98%	56.01%
Paying 114% / 133% of Basic Rate with COLA Cost Share	18.26%	36.98%	55.24%
TIER 2			
For General Members	9.99%	30.60%	40.59%
For Safety Members	15.42%	63.73%	79.15%
COMPOSITE TOTAL FOR GENERAL AND SAFETY COMBINED	10.61%	34.28%	44.89%

The composite employer contribution rates (for General and Safety Members combined) expressed as a percentage, or range of percentages, of covered payroll for the past seven years follows.

CONTRIBUTION YEAR	TIER 1	TIER 2
2022	55.24% – 59.33%	44.89%
2021	53.88% – 57.96%	43.69%
2020	50.86% – 54.72%	41.00%
2019	48.09% – 51.81%	38.60%
2018	45.18% – 48.75%	35.80%
2017	44.31% – 47.91%	34.48%
2016	42.06% – 45.58%	31.95%

MEMBER CONTRIBUTIONS

Member contributions are deducted from the member's salary on a biweekly basis.

Tier 1 member contribution rates are calculated by the actuary using the Entry Age Normal Funding Method (Cost Method). Most Tier 1 members pay one-half of the cost of pre-funding post-retirement COLAs, and some pay an additional percentage of the basic member contribution rate, which reduces the employers' normal cost. Tier 2 members pay a single contribution rate adjusted annually. The required contribution rates are expressed as a percentage of covered payroll. The 2022 contribution rates were determined using the actuarial valuation performed as of January 1, 2021.

Tier 1 members pay contributions based upon their membership category, General or Safety, and age at entry into membership. General Tier 1 members employed before March 7, 1973, and all Safety Tier 1 members stop paying member contributions when they have 30 years of service, but continue to accrue retirement service credit for subsequent active employment subject to membership.

Tier 2 members pay contributions based upon their membership category equal to one-half of the normal cost of the applicable benefits.

In 2022, member contributions totaled $47,405,308 and employer contributions totaled $269,080,047. Member contributions increased by $3.9 million, or 9.09 percent, over the prior year, and employer contributions decreased by $37.6 million, or 12.26 percent, over the prior year.

NOTE 7 – FIDUCIARY NET POSITION RESTRICTED FOR PENSION BENEFITS

As required by the CERL and the Board's policy, the following reserves from Fiduciary Net Position Restricted for Pension Benefits must be established and used to account for the members', employers', and retirees' contributions. The Unappropriated Earnings Reserve was sufficient to fully credit all reserves interest earnings at the 7.00 percent assumption rate. In addition, there were excess earnings to fund the Contingency Reserve in 2022 in the amount of $43,633,169.

A. ACTIVE AND DEFERRED MEMBERS' RESERVE

This reserve represents the cumulative contributions made by active members, net of refunds to the members, plus the investment earnings credited to the reserve at the assumption rates determined by the actuary.

B. EMPLOYER ADVANCE RESERVE

This reserve represents the cumulative contributions made by the County and participating employers. Interest earnings are credited semi-annually to the reserves at the assumption rate determined by the actuary if sufficient unappropriated earnings reserve funds exist.

C. COUNTY ADDITIONAL 5% CONTRIBUTIONS RESERVE

This reserve represents the additional contributions in excess of actuarially determined contributions paid by the County in order to decrease its share of the UAL.

D. MVCD ADDITIONAL CONTRIBUTIONS RESERVE

This reserve represents the additional contributions in excess of actuarially determined contributions paid by the MVCD in order to decrease its share of the UAL.

E. COURT ADDITIONAL CONTRIBUTION RESERVE

This reserve represents the additional contributions in excess of actuarially determined contributions paid by the Court in order to decrease its share of the UAL.

F. RETIRED MEMBERS' RESERVE

This reserve accounts for the unpaid retirees' pension benefits. Upon a member's retirement, the member's accumulated contributions are transferred from the Active and Deferred Members' Reserve account to the Retired Members' Annuity Reserve account. In addition, the actuarially determined amount of the member's vested interest is transferred from the Employer Advance Reserve account to the Retired Members' Pension Reserve account. The Retired Members' Reserve account at December 31, 2022, includes the authorized "Purchasing Power" benefit reserve and additional pension benefits specified in the pre-April 1, 1982 class-action lawsuit settlement agreement. These benefits are explained in Note 1b. In accordance with the Statement of Reserve Policy, the post-April 1, 1982 Settlement Reserve is a Special Reserve, which is not included in valuation assets.

G. CLASS ACTION SETTLEMENT – POST 4/1/82 RESERVE

The Class Action Settlement – Post 4/1/82 Reserve designates the fund that pays the Post-82 Class Action Settlement allowances for the lifetime of the members and beneficiaries, who retired between April 1, 1982, and December 31, 2000, to the extent sufficient funds are available.

H. CONTINGENCY RESERVE

Earnings of the retirement fund during any year in excess of the total interest credited to contributions and reserves during the year remain in the fund as a reserve against deficiencies in interest earnings in other years, losses on investments, and other contingencies. The CERL provides that when the contingency reserve exceeds one percent of total assets, the retirement board may transfer all or any part of the surplus as specified in Government Code Section 31592.2. In June 2017, the Board amended the Reserve Policy, lowering the Contingency Reserve target from three percent to one percent of total assets. The Contingency Reserve is 1.1 percent of the fair value of total assets at December 31, 2022.

I. MARKET STABILIZATION DESIGNATION RESERVE

This "designation" reserve is used to further minimize the impact of the fluctuations in the fair value of the investments owned by SJCERA. It represents the difference between the actuarial value of assets and the fair value of assets at year-end. It is the balance of deferred earnings and losses created by a five-year smoothing of actual gains and losses compared to the assumed investment rate of return.

J. UNAPPROPRIATED EARNINGS RESERVE

The Unappropriated Earnings Reserve (UER) is used to accumulate investment income earned by SJCERA, net of the investment expenses and SJCERA's administration cost. From this unappropriated earnings account, interest is credited to various reserve accounts. In addition, at the Board's discretion and subject to the settlement agreement in 2001, this account may also be used, from time to time, to stabilize the County's and the special districts' actuarially determined contributions, and to fund the market stabilization and contingency reserves accounts.

K. SUMMARY OF RESERVES

A summary of reserved and designated net position at December 31, 2022, follows.

RESERVES		
Active and Deferred Members	$	490,248,004
Employer Advance		2,283,312,967
County Additional 5% Contributions		189,312,897
MVCD Additional Contributions		470,563
Court Additional Contributions		3,622,783
Retired Members		1,100,175,871
Class Action Settlement – Post-4/1/82		80,451
Contingency		43,633,169
Market Stabilization Designation		(310,649,354)
Unappropriated Earnings (Restricted)		17,545,411
TOTAL RESERVES	$	3,817,752,762

NOTE 8 – NET PENSION LIABILITY AND SIGNIFICANT ASSUMPTIONS

A. NET PENSION LIABILITY OF EMPLOYERS

SJCERA is a cost sharing, multiple-employer pension plan with a reporting date of December 31, 2022. Measurements as of the reporting date are based on the fair value of assets as of December 31, 2022, and the total pension liability as of the valuation date, January 1, 2022, projected to December 31, 2022. There were no significant events between the valuation date and the measurement date, so the updated procedures consisted of updated actuarial assumptions, plus the addition of service cost and interest cost offset by benefit payments.

The net pension liability was measured as of December 31, 2022, and determined based upon rolling forward the total pension liability from the actuarial valuation as of January 1, 2022. The net pension liability (i.e., the pension plan's liability determined in accordance with GASB Statement No. 67 less the fiduciary net position) is shown below.

Employers' Net Pension Liability (GASB Statement No. 67)
AS OF DECEMBER 31, 2022
(Dollars in Millions)

Total Pension Liability	$	5,517
Plan Fiduciary Net Position		3,818
Employers' Net Pension Liability	$	1,699
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability		69.2%

B. ACTUARIAL ASSUMPTIONS AND SIGNIFICANT ASSUMPTIONS

SJCERA retains an independent actuarial firm to conduct actuarial valuations of the pension plan, monitor SJCERA's funding status, and establish the contribution rate requirements for the pension plan. Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events into the future. Examples include assumptions about future employment, mortality, and cost trends. Actuarially determined amounts are subject to continual review or modification as actual results are compared with past expectations and new estimates are made about the future. Projections of benefits for financial reporting purposes are based on the plan and include the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs between the employer and plan members to that point. The actuarial methods and assumptions used include techniques that are designed to reduce short-term volatility in accrued actuarial liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations. The total pension liability was determined by an actuarial valuation as of January 1, 2022, using the following actuarial assumptions applied to all prior periods included in the measurement in accordance with the requirements of GASB Statement No. 67.

In the January 1, 2022 actuarial valuation, the Entry Age Normal Funding Method (Cost Method) was used. The actuarial assumptions include a 6.75 percent investment rate of return, annual inflation rate of 2.75 percent per year, and projected salary increases at 3.00 percent per year for the year ended 2022. The actuarial value of the plan's assets was based on a five-year smoothing of actual versus expected returns.

In 2015, the SJCERA Board changed the funding policy to amortize any unexpected changes in the UAL over a period of 15 years as a level percent of pay, with new amortization layers each year. The 2008 Extraordinary Actuarial Loss, which is amortized over a closed 30-year period, has 17 years remaining. The remaining UAL as of December 31, 2013, which is amortized over a closed 19-year period, has 11 years remaining. The new additions to the UAL on and after January 1, 2014, are amortized over 15 years. The single amortization period for these streams of payments is 12 years as of January 1, 2022. The amortization period for each UAL layer will decrease each year.

Notes to the Financial Statements

The total pension liability for the pension plan was determined by an actuarial valuation as of January 1, 2022, and accepted actuarial procedures were applied to project the total pension liability to December 31, 2022. Key methods and assumptions used in the latest actuarial valuations as of January 1, 2022, follow.

Key methods and assumptions used in the latest actuarial valuation are presented below.

Valuation Date	January 1, 2022
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percentage of Payroll with Separate Amortization Periods for Extraordinary Actuarial Gains or Losses
Remaining Amortization Period	2008 Extraordinary Actuarial Loss – 17 years Remaining UAL as of January 1, 2014 – 11 years Subsequent Unexpected Changes in UAL after January 1, 2014 – 15 years Single Equivalent Period as of January 1, 2022 – 12 years
Asset Valuation Method	Smoothed Actuarial Value (5 years): 80%–120% Asset Corridor
ACTUARIAL ASSUMPTIONS:	
Discount Rate	6.75%, Net of Pension Plan Investment Expenses, Including Inflation
Projected Salary Increases	3.00%, Plus Service-Based Rates
General Inflation Rate	2.75%
Cost-of-Living Adjustments	2.60% Per Year Assumed
Healthy Mortality	Mortality rates for General active members are based on the sex distinct 2021 CalPERS Pre-Retirement Non-Industrial Mortality Table, with generational mortality improvements projected from 2017 using 80% of Projection Scale MP-2020. Mortality rates for Safety active members are based on the sum of the rates from the 2021 CalPERS Industrial and Non-Industrial Mortality Table, with generational mortality improvements projected from 2017 using 80% of of Projection Scale MP-2020. 10% of Safety member active deaths are assumed to occur in the line of duty. Mortality rates for healthy General annuitants are based on the sex distinct 2021 CalPERS Healthy Annuitant Mortality Table, with generational mortality improvements projected from 2017 using 80% of Projection Scale MP-2020, and a partial credibility adjustment of 1.05 for males and no adjustments for females. Mortality rates for Safety annuitants are based on the sex distinct 2021 CalPERS Healthy Annuitant Mortality Table, with generational mortality improvements projected from 2017 using 80% of Projection Scale MP-2020, and a partial credibility adjustment of 1.05 for males and no adjustment for females.
Disabled Mortality	Mortality rates for General disabled annuitants are based on status. Rates for General disabled annuitants with a service-related disability are based on the sex distinct 2021 CalPERS Industrially Disabled Annuitant Mortality Table, with generational mortality improvements projected from 2017 using 80% of Projection Scale MP-2020. Rates for General disabled annuitants with a non-service-related disability are based on the sex distinct 2021 CalPERS Non-Industrially Disabled Annuitant Mortality Table, with generational mortality improvements projected from 2017 using 80% of Projection Scale MP-2020. Mortality rates for Safety disabled annuitants are based on the sex distinct 2021 CalPERS Industrially Disabled Mortality Table, with generational mortality improvements projected from 2017 using Projection 80% of Scale MP-2020.

C. FUNDED STATUS AND FUNDING PROGRESS

The annual actuarial valuation determines the progress made in accumulating sufficient assets to pay benefits when due. As of January 1, 2022, the pension plan's accrued actuarial liabilities were $5.3 billion and the actuarial value of assets was $4.2 billion, resulting in UAL of $1.1 billion. The funded status (ratio) of actuarial value of assets over accrued actuarial liabilities was 78.0 percent.

As of the January 1, 2022 actuarial valuation, the funded status increased to 78.0 percent from 68.1 percent on a market value of assets basis. It increased to 72.4 percent from 67.0 percent on an actuarial value of assets. There were no assumption changes made as of January 1, 2022.

SJCERA's Funding Policy provides for regular employer and member contributions at actuarially determined rates, expressed as percentages of annual covered payroll. Contributions required and contributions made are explained in Note 6.

D. ASSET ALLOCATION POLICY AND EXPECTED LONG-TERM RATE OF RETURN BY ASSET CLASS

The allocation of investment assets within SJCERA's portfolio is approved by the Board. Plan assets are managed on a total return basis with a long-term objective of achieving and maintaining a fully funded status for the benefits provided through the defined benefit pension plans. The long-term expected rate of return on defined benefit pension plan investment assets was determined using a building-block method in which best estimate ranges of expected future real rates of return are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage, adjusted for inflation. The following table displays the Board-approved asset allocation policy for 2022 and the long-term expected real rates of return.

ASSET CLASS	TARGET ALLOCATION	ARITHMETIC LONG-TERM EXPECTED REAL RATE OF RETURN
Aggressive Growth	16.00%	9.65%
Traditional Growth	34.00%	5.45%
Stabilized Growth	30.00%	3.75%
Principal Protection	7.00%	-0.25%
Crisis Risk Offset (CRO)	13.00%	1.95%
Cash	0.00%	-1.05%
TOTAL	100.00%	

E. DISCOUNT RATE

The discount rate used to measure the total pension liability was 6.75 percent as of December 31, 2022. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the actuarially determined contribution rates. For this purpose, only employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs of future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the fiduciary net position was projected to be available to make all projected future benefit payments for current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability as of December 31, 2022.

F. SENSITIVITY OF THE NET PENSION LIABILITY TO CHANGES IN THE DISCOUNT RATE

The table below presents the net pension liability of SJCERA as of December 31, 2022, calculated using the discount rate of 6.75 percent, as well as what SJCERA's net pension liability would be if it were calculated using a discount rate that is one percentage point lower or one percentage point higher than the current rate.

	1% DECREASE (5.75%)	CURRENT DISCOUNT RATE (6.75%)	1% INCREASE (7.75%)
Total Pension Liability	$ 6,250,685,626	$ 5,517,142,112	$ 4,912,397,383
Pension Plan Fiduciary Net Position	3,817,752,762	3,817,752,762	3,817,752,762
COLLECTIVE NET PENSION LIABILITY	$ 2,432,932,864	$ 1,669,389,350	$ 1,094,644,621
Fiduciary Net Position as a Percentage of the Total Pension Liability	61.1%	69.2%	77.7%

G. RATE OF RETURN

For the year ended December 31, 2022, the annual money-weighted rate of return on investments, net of investment expense, was -7.24 percent. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

NOTE 9 – INVESTMENT EXPENSES

Investment expenses include fees paid for investment management services, investment consulting services, fund evaluation services, securities custodian services, and interest expense and other fees incurred in security lending transactions.

NOTE 10 – GENERAL ADMINISTRATIVE EXPENSES

General administrative expenses, including the depreciation and amortization of capital assets, are funded by investment income earnings and are limited, pursuant to Government Code Section 31580.2, to twenty-one-hundredths of one percent (0.21 percent) of SJCERA's accrued actuarial liability. The actual administration expense for the year ended December 31, 2022, was 0.09 percent of the accrued actuarial liability. SJCERA was in compliance with this requirement during 2022.

NOTE 11 – PENDING LITIGATION

SJCERA V. TRAVELERS

SJCERA sought coverage for its defense fees and costs incurred in the Allum Class Action ("Allum Litigation") under a fiduciary liability insurance policy issued by SJCERA's prior fiduciary insurance carrier, Travelers Casualty & Surety Company of America ("Travelers"). Travelers declined to provide a defense to SJCERA, and SJCERA filed a lawsuit in the United States District Court, Eastern District of California ("U.S.D.C.") that alleged both that Travelers breached the insurance contract and acted in bad faith by failing to defend it in the Allum Litigation. The Eastern District of California granted Travelers' Motion for Summary Judgment, ruling that the "prior and pending litigation" exclusion in the Travelers' policy precluded coverage. SJCERA timely filed an appeal with the Ninth Circuit Court of Appeal. The Ninth Circuit Court of Appeal reversed the U.S.D.C.'s decision and remanded the case to enter judgement for SJCERA. SJCERA has been reimbursed some, but not all, of its attorney's fees and costs incurred in the Allum Class Action from Travelers as a result of this decision, and the case is still pending.

NOTE 12 – COMMITMENTS AND CONTINGENCIES

SJCERA participates in certain investments that require commitments of a specified amount of capital up front that is then drawn down at a later time as the investment vehicle requires. The total unfunded capital commitment represents the amount of funds that SJCERA could potentially be required to contribute at a future date. SJCERA had unfunded capital commitments totaling $339.9 million at December 31, 2022.

NOTE 13 – SUBSEQUENT EVENTS

SJCERA has evaluated subsequent events through May 25, 2023, the date on which the financial statements were available to be issued, noting no subsequent events.

Required Supplementary Information

Schedule of Changes in Net Pension Liability and Related Ratios

FOR THE YEARS ENDED*

	2022	2021	2020	2019	2018
Total Pension Liability					
Service Cost	$ 118,695,366	$ 116,888,677	$ 115,229,486	$ 110,608,926	$ 103,300,553
Interest (Includes Interest on Service Cost)	356,415,938	360,520,733	350,095,503	337,480,353	325,161,265
Change of Benefit Terms	-	-	-	-	-
Differences Between Expected and Actual Experience	(37,863,999)	(17,017,994)	(58,571,957)	4,950,114	(49,383,683)
Changes of Assumptions	(58,741,183)	-	135,011,307	16,016,526	81,854,664
Benefit Payments, Including Refunds of Member Contributions	(279,363,795)	(265,965,599)	(251,551,677)	(236,350,072)	(221,443,668)
NET CHANGE IN TOTAL PENSION LIABILITY	99,142,327	194,425,817	290,212,662	232,705,847	239,489,131
TOTAL PENSION LIABILITY – BEGINNING	5,417,999,785	5,223,573,968	4,933,361,306	4,700,655,459	4,461,166,328
TOTAL PENSION LIABILITY – ENDING (A)	$5,517,142,112	$5,417,999,785	$5,223,573,968	$4,933,361,306	$4,700,655,459
Fiduciary Net Position					
Contributions – Employer	$ 269,080,047	$ 306,662,635	$ 240,700,988	$ 225,528,756	$ 208,757,572
Contributions – Member	47,405,308	43,455,640	40,568,995	38,098,688	35,377,951
Transfer Between Plans	224,628	270,570	172,041	299,014	324,269
Net Investment Income (Loss)	(412,759,726)	572,291,948	276,996,530	380,674,528	(56,397,598)
Benefit Payments, Including Refunds of Member Contributions	(279,363,795)	(265,965,599)	(251,551,677)	(236,350,072)	(221,443,668)
Administrative Expenses	(5,621,704)	(4,639,439)	(4,536,455)	(4,931,163)	(4,865,082)
NET CHANGE IN FIDUCIARY NET POSITION	(381,035,242)	652,075,755	302,350,422	403,319,751	(38,246,555)
FIDUCIARY NET POSITION – BEGINNING	4,198,788,004	3,546,712,249	3,244,361,827	2,841,042,076	2,879,288,631
FIDUCIARY NET POSITION – ENDING (B)	$3,817,752,762	$4,198,788,004	$3,546,712,249	$3,244,361,827	$2,841,042,076
NET PENSION LIABILITY (A)–(B)	$1,699,389,350	$1,219,211,781	$1,676,861,719	$1,688,999,479	$1,859,613,383
FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY	69.20%	77.50%	67.90%	65.76%	60.44%
COVERED PAYROLL**	$ 484,055,752	$ 470,179,036	$ 460,456,931	$ 453,710,584	$ 436,763,447
NET PENSION LIABILITY AS A PERCENTAGE OF COVERED PAYROLL	351.07%	259.31%	364.17%	372.26%	425.77%

* Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.
** Covered Payroll reported by plan sponsors is the payroll on which contributions are based in accordance with GASB Statement No. 82.

Schedule of Changes in Net Pension Liability and Related Ratios

FOR THE YEARS ENDED*

	2017	2016	2015	2014
Total Pension Liability				
Service Cost	$ 98,438,144	$ 92,857,369	$ 94,377,630	$ 90,429,416
Interest (Includes Interest on Service Cost)	308,566,601	295,197,992	280,581,484	266,668,435
Change of Benefit Terms	-	-	-	-
Differences Between Expected and Actual Experience	37,219,673	(10,171,368)	(25,752,670)	-
Changes of Assumptions	-	87,601,669	-	-
Benefit Payments, Including Refunds of Employee Contributions	(205,406,970)	(194,719,177)	(181,468,913)	(165,870,971)
NET CHANGE IN TOTAL PENSION LIABILITY	238,817,448	270,766,485	167,737,531	191,226,880
TOTAL PENSION LIABILITY – BEGINNING	4,222,348,880	3,951,582,395	3,783,844,864	3,592,617,984
TOTAL PENSION LIABILITY – ENDING (A)	$4,461,166,328	$4,222,348,880	$3,951,582,395	$3,783,844,864
Fiduciary Net Position				
Contributions – Employer	$ 200,051,742	$ 159,122,523	$ 150,371,556	$ 136,686,133
Contributions – Member	33,634,906	30,117,408	29,026,901	27,367,908
Transfer Between Plans	364,714	293,779	378,969	19,968,779
Net Investment Income (Loss)	299,960,693	151,114,788	(47,339,750)	110,728,303
Benefit Payments, Including Refunds of Member Contributions	(205,406,970)	(194,719,177)	(181,468,913)	(165,870,971)
Administrative Expenses	(4,118,578)	(4,369,744)	(4,075,745)	(4,042,986)
NET CHANGE IN FIDUCIARY NET POSITION	324,486,507	141,559,577	(53,106,982)	124,837,166
FIDUCIARY NET POSITION – BEGINNING	2,554,802,124	2,413,242,547	2,466,349,529	2,341,512,363
FIDUCIARY NET POSITION – ENDING (B)	$2,879,288,631	$2,554,802,124	$2,413,242,547	$2,466,349,529
NET PENSION LIABILITY (A)–(B)	$1,581,877,697	$1,667,546,756	$1,538,339,848	$1,317,495,335
FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY	64.54%	60.51%	61.07%	65.18%
COVERED PAYROLL**	$ 425,886,951	$ 392,227,314	$ 396,136,470	$ 376,030,944
NET PENSION LIABILITY AS A PERCENTAGE OF COVERED PAYROLL	371.43%	425.15%	388.34%	350.37%

* Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.
** Covered Payroll reported by plan sponsors is the payroll on which contributions are based in accordance with GASB Statement No. 82.

Required Supplementary Information

Schedule of Contributions From the Employers And Other Contributing Sources – Defined Benefit Pension Plan

FOR THE TEN YEARS ENDED DECEMBER 31

2022–2018

	2022	2021	2020	2019	2018
Actuarially Determined Contributions	$ 245,967,122	$ 233,148,239	$ 218,611,737	$ 203,058,574	$ 188,322,653
Contributions in Relation to the Actuarially Determined Contributions	$ 269,080,047	$ 306,662,635	$ 240,700,988	$ 225,528,756	$ 208,757,572
Contribution Deficiency / (Excess)**	$ (23,112,925)	$ (73,514,396)	$ (22,089,251)	$ (22,470,182)	$ (20,434,919)
Covered Payroll*	$ 484,055,752	$ 470,179,036	$ 460,456,931	$ 453,710,854	$ 436,763,447
Contributions as a Percentage of Covered Payroll	55.59%	65.22%	52.27%	49.71%	47.80%

2017–2013

	2017	2016	2015	2014	2013
Actuarially Determined Contributions	$ 179,824,882	$ 159,122,523	$ 150,371,556	$ 136,686,133	$ 119,494,319
Contributions in Relation to the Actuarially Determined Contribution	$ 200,051,742	$ 159,122,523	$ 150,371,556	$ 136,686,133	$ 119,494,319
Contribution Deficiency / (Excess)**	$ (20,226,860)	$ -	$ -	$ -	$ -
Covered Payroll*	$ 425,886,951	$ 392,227,314	$ 396,136,470	$ 376,030,944	$ 362,650,568
Contributions as a Percentage of Covered Payroll	46.97%	40.57%	37.96%	36.35%	32.95%

* Covered Payroll reported by plan sponsors for 2014 through 2022. Previous years' amounts are based on projected payroll from the actuarial valuation reports.

** The contributions in excess of Actuarially Determined Contributions are due to the County's, MVCD's, and the Court's additional contributions.

Required Supplementary Information

Schedule of Investment Returns
FOR THE YEARS ENDED*

	2022	2021	2020	2019	2018	2017	2016	2015	2014
Annual Money-Weighted Rate of Return, Net of Investment Expense	-7.24%	13.68%	2.23%	13.77%	-2.11%	11.85%	6.20%	-2.06%	4.29%

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

The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested. It is calculated by finding the rate of return that will set the present values of all cash flows and terminal values equal to the value of the initial investment. The money-weighted rate of return is equivalent to the internal rate of return (IRR).

Time-weighted rate of return assumes that all cash distributions are reinvested in the portfolio and the exact same periods are used for comparisons. When calculating the time-weighted rate of return, the effect of varying cash inflows is eliminated by assuming a single investment at the beginning of a period and measuring the growth or loss of fair value to the end of that period.

Note to Required Supplementary Information

FOR THE YEAR ENDED DECEMBER 31, 2022

NOTE 1 – KEY METHODS AND ASSUMPTIONS USED TO DETERMINE CONTRIBUTION RATES

The following actuarial methods and assumptions were used for the year ended December 31, 2022, in the Schedule of Contributions from the Employers and Other Contributing Sources:

Valuation Date	January 1, 2021
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percentage of Payroll with Separate Amortization Periods for Extraordinary Actuarial Gains or Losses.
Remaining Amortization Period	2008 Extraordinary Actuarial Loss – 18 years Remaining UAL as of January 1, 2014 – 12 years Subsequent Unexpected Changes in UAL after January 1, 2014 – 15 years Single Equivalent Period as of January 1, 2019 – 14 years
Asset Valuation Method	Smoothed Actuarial Value (5 years) 80%–120% Asset Corridor
ACTUARIAL ASSUMPTIONS:	
Discount Rate	7.00%, Net of Pension Plan Investment Expenses, Including Inflation
Projected Salary Increases	3.00%, Plus Service-Based Rates
General Inflation Rate	2.75%
Cost-of-Living Adjustments (COLA)	2.60% Per Year Assumed
Healthy Mortality	Mortality rates for General active members are based on the sex distinct Public General 2010 Above-Median Income Mortality Table, with generational mortality improvements projected from 2010 using Projection Scale MP-2018, and a partial credibility adjustment of 1.05 for females and no adjustment for males. Mortality rates for Safety active members are based on the sex distinct Public Safety 2010 Mortality Table, with generational mortality improvements projected from 2010 using Projection Scale MP-2018, and a partial credibility adjustment of 0.98 for males and 1.06 for females. 10% of Safety member active deaths are assumed to occur in the line of duty. Mortality rates for healthy General annuitants and General beneficiaries are based on the sex distinct Public General 2010 Above-Median Income Mortality Table, with generational mortality improvements projected from 2010 using Projection Scale MP-2018, and a partial credibility adjustment of 1.04 for females and no adjustment for males. Mortality rates for Safety annuitants and Safety beneficiaries are based on the sex distinct Public Safety 2010 Mortality Table, with generational mortality improvements projected from 2010 using Projection Scale MP-2018, and a partial credibility adjustment of 1.02 for males and 1.05 for females.
Disabled Mortality	Mortality rates for General disabled annuitants are based on the sex distinct Public General Disabled Annuitant 2010 Mortality Table, with a generational mortality improvements projected from 2010 using Projection Scale MP-2018, with a partial credibility adjustment of 1.04 for males and 1.07 for females. Mortality rates for Safety disabled annuitants are based on the sex distinct Public Safety Disabled Annuitant 2010 Mortality Table, with generational mortality improvements projected from 2010 using Projection Scale MP-2018, with a partial credibility adjustment of 1.04 for males and 0.98 for females.

A complete description of the methods and assumptions used to determine contribution rates for the year ending December 31, 2022, can be found in the January 1, 2021 actuarial valuation report.

Schedule of Administrative Expenses
FOR THE YEAR ENDED DECEMBER 31

		2022
General Administrative Expenses (Expenses Subject to the Statutory Limit)		
PERSONNEL SERVICES		
Staff Salaries	$	1,699,542
Cafeteria Benefits		147,104
Insurance		327,585
Social Security		124,609
Retirement		783,713
TOTAL PERSONNEL SERVICES	$	3,082,553
PROFESSIONAL SERVICES		
Professional and Specialized Services	$	1,019,781
Allocated Department Costs		(5,022)
TOTAL PROFESSIONAL SERVICES	$	1,014,759
COMMUNICATIONS		
Postage	$	19,122
Telephone		15,480
Travel		50,087
TOTAL COMMUNICATIONS	$	84,689
RENTALS / EQUIPMENT		
Office Space and Equipment	$	229,177
TOTAL RENTALS/EQUIPMENT	$	229,177
MISCELLANEOUS		
Office Supplies / Expense	$	43,121
Subscriptions and Periodicals		8,338
Memberships		8,052
Maintenance		25,544
Insurance		130,902
TOTAL MISCELLANEOUS	$	215,957
TOTAL GENERAL ADMINISTRATIVE EXPENSES	$	4,627,135
Other Expenses (Expenses Not Subject to the Statutory Limit)		
Information Technology Expenses	$	335,386
Actuary Fees		167,671
Fund Legal Fees		491,512
TOTAL OTHER EXPENSES	$	994,569
TOTAL GENERAL ADMINISTRATIVE AND OTHER EXPENSES	**$**	**5,621,704**

Other Supplementary Information

Schedule of Investment Expenses
FOR THE YEAR ENDED DECEMBER 31, 2022

		2022
Investment Management Fees		
Principal Protection	$	501,341
Traditional Growth		1,134,789
Credit		4,657,047
Risk Parity		1,520,367
Aggressive Growth		9,116,460
Credit Risk Offset		6,723,746
Core Real Asset - Short-Term Investments / Cash / Cash Equivalents		145,994
TOTAL INVESTMENT MANAGEMENT FEES	$	23,799,744
Other Investment Fees and Expenses		
Custodian Fees	$	89,840
Investment Consultant Fees		436,462
Miscellaneous Investment Expense		2,915,002
TOTAL OTHER INVESTMENT FEES AND EXPENSES	$	3,441,304
TOTAL INVESTMENT EXPENSE	$	27,241,048
Securities Lending Fees		
Securities Lending Fees and Rebates	$	2,384,475
TOTAL INVESTMENT FEES AND EXPENSES	$	29,625,523

Schedule of Payments to Consultants
FOR THE YEAR ENDED DECEMBER 31

		2022
Nature of Service		
Actuarial-Retainer and Valuation	$	167,671
Audit		60,670
Fund Legal Fees		491,512
Business Technology Services		335,386
TOTAL PAYMENTS TO CONSULTANTS	$	1,055,239

Schedule of Cost Sharing Employer Allocations
AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2022

EMPLOYER	PROPORTIONATE SHARE [1]	NET PENSION LIABILITY [2]
County of San Joaquin	92.7057%	$ 1,575,431,289
SJC Superior Court	3.9165%	66,556,399
Lathrop-Manteca Rural Fire Protection District	1.5248%	25,912,372
Waterloo-Morada Rural Fire Protection District	0.6367%	10,819,220
Tracy Public Cemetery District	0.0634%	1,077,001
SJC Mosquito and Vector Control District	0.5329%	9,055,877
SJC Historical Society and Museum	0.0576%	978,575
Mountain House Community Services District	0.5398%	9,172,487
San Joaquin County Law Library	0.0162%	274,455
Local Agency Formation Commission	0.0066%	111,675
TOTAL	100.0000%	$ 1,699,389,350

[1] As SJCERA is a cost sharing multiple-employer pension plan, each employer participating in SJCERA must reflect a portion of the collective net pension liability and pension expense in their financial statements. The calculation for the proportionate share for each employer allocates net pension liability and pension expense based on each employer's share of the unfunded liability amortization payment. The proportionate shares are then adjusted to account for the additional contributions made by the County of San Joaquin, the SJC Mosquito and Vector Control District, and SJC Superior Court for the year ended December 31, 2022.

[2] Proportionate share of net pension liability is based on the actuarial valuation.

Schedule of Employer Pension Amounts Allocated by Cost Sharing Plan
FOR THE YEAR ENDED DECEMBER 31, 2022

		DEFERRED OUTFLOWS OF RESOURCES				DEFERRED INFLOWS OF RESOURCES			PENSION EXPENSE		
EMPLOYER	NET PENSION LIABILITY	DIFFERENCES BETWEEN EXPECTED AND ACTUAL EXPERIENCE	CHANGES OF ASSUMPTIONS	CHANGES IN PROPORTION AND DIFFERENCES BETWEEN CONTRIBUTIONS AND PROPORTIONATE SHARE OF PENSION EXPENSE	TOTAL DEFERRED OUTFLOWS OF RESOURCES	DIFFERENCES BETWEEN EXPECTED AND ACTUAL EXPERIENCE	CHANGES IN PROPORTION AND DIFFERENCES BETWEEN CONTRIBUTIONS AND PROPORTIONATE SHARE OF PENSION EXPENSE	TOTAL DEFERRED INFLOWS OF RESOURCES	PROPORTIONATE SHARE OF PLAN PENSION EXPENSE	NET AMORTIZATION OF DEFERRED AMOUNTS FROM CHANGES IN PROPORTION AND PROPORTIONATE SHARE OF PENSION EXPENSE	TOTAL PENSION EXPENSE
County of San Joaquin	$1,575,431,289	$ 917,807	$ 53,034,936	$ 5,813,287	$ 59,766,030	$ 59,267,495	$ 5,569,123	$ 64,836,618	$ 218,460,602	$ (1,410,712)	$ 217,049,890
SJC Superior Court	66,556,399	38,774	2,240,538	2,626,497	4,905,809	2,503,842	2,642,016	5,145,858	9,229,188	326,794	9,555,982
Lathrop-Manteca Rural Fire Protection District	25,912,372	15,096	872,308	1,621,653	2,509,057	974,820	2,679,835	3,654,655	3,593,195	263,695	3,856,890
Waterloo-Morada Rural Fire Protection District	10,819,220	6,303	364,216	1,621,498	1,992,017	407,017	1,227,876	1,634,893	1,500,271	275,940	1,776,211
Tracy Public Cemetery District	1,077,001	627	36,256	128,623	165,506	40,517	211,884	252,401	149,345	2,705	152,050
SJC Mosquito and Vector Control District	9,055,877	5,276	304,855	490,712	800,843	340,681	530,167	870,848	1,255,753	31,235	1,286,988
SJC Historical Society and Museum	978,575	570	32,943	235,581	269,094	36,814	62,308	99,122	135,696	150,661	286,357
Mountain House Community Services District	9,172,487	5,344	308,780	988,818	1,302,942	345,068	667,615	1,012,683	1,271,923	300,232	1,572,155
San Joaquin County Law Library	274,455	160	9,239	40,818	50,217	10,325	61,866	72,191	38,058	37,395	75,453
Local Agency Formation Commission	111,675	65	3,759	86,586	90,410	4,201	1,382	5,583	15,486	22,055	37,541
TOTALS	$1,699,389,350	$ 990,022	$ 52,207,830	$ 13,654,073	$ 71,851,925	$ 63,930,780	$ 13,654,072	$ 77,584,852	$ 235,649,517	$ -	$ 235,649,517

NOTE 1 – BASIS OF PRESENTATION AND BASIS OF ACCOUNTING

Because San Joaquin County Employees' Retirement Association (SJCERA) is a cost sharing multiple-employer pension plan, employers participating in SJCERA are required to report a portion of the collective Net Pension Liability, Pension Expense, and Deferred Outflows and Inflows of Resources in their financial statements for fiscal periods beginning on or after June 15, 2014, in accordance with Governmental Accounting Standards Board (GASB) Statement No. 68, Accounting and Financial Reporting for Pensions – an Amendment of GASB Statement No. 27. GASB Statement No. 68 requires that the proportionate share for each employer be determined based on the employer's projected long-term contribution effort to the pension.

SJCERA's actuary prepared the following documents, (1) the Schedule of Cost Sharing Employer Allocations and (2) the Schedule of Employer Pension Amounts Allocated by Cost Sharing Plan, in accordance with accounting principles generally accepted in the United States of America as applicable to governmental organizations based on information provided by SJCERA. These documents provide the required information for financial reporting related to SJCERA that employers may use in their financial statements. The measurement date for SJCERA is December 31, 2022. Measurements are based on the fair value of assets as of December 31, 2022, and the Total Pension Liability of $5,517,142,112 as of December 31, 2022, was measured as of a valuation date of January 1, 2022, and projected to December 31, 2022.

NOTE 2 – AMORTIZATION OF DEFERRED OUTFLOWS AND DEFERRED INFLOWS OF RESOURCES

The difference between projected and actual investment earnings on pension plan investments is amortized over five years on a straight-line basis. One-fifth is recognized in Total Pension Expense for each of the five years. The changes in assumptions and differences between expected and actual experience are recognized over the average of the expected remaining service lives of all active and inactive members of SJCERA, which is also five years. The net effect of the change in the employer's proportionate share of the collective net pension liability and collective deferred outflows of resources and deferred inflows of resources is recognized over the average expected remaining service lives of all active and inactive members of SJCERA.

Investment

Independent Consultant's Report

MEKETA INVESTMENT GROUP

2175 NW Raleigh St.
Suite 300A
Portland, OR 97210

503.226.1050
Meketa.com

May 24, 2023

Board of Trustees
San Joaquin County Employees' Retirement Association
6 South El Dorado Street
Suite 400
Stockton, CA 95202

Dear Trustees:

Enclosed is our report on the investment activity for the San Joaquin County Employees' Retirement Association (SJCERA) for the period ending December 31, 2022.

SJCERA - Total Fund Performance

As of December 31, 2022, the SJCERA Portfolio had approximately $3.8 billion in total assets, a decrease of roughly $252 million for the calendar year due to negative investment results[1]. The SJCERA Total Fund generated a gross of fees return of -6.7% for the calendar year, trailing its 6.75% assumed rate of return. However, the portfolio bested it assumed rate for three of the last five calendar years. While total portfolio performance was negative in 2022, the Crisis Risk Offset class returned a positive 9.9%. Aggressive Growth, which includes private equity and private real estate, provided positive returns and outperformed its benchmark over all long-term trailing time periods. With a negative (9.8%) return in 2022, Principal Protection provided significant outperformance relative to its benchmark. Global Public Equities, which underperformed in 2022 outperformed its benchmark 70 basis points. Performance for all of the strategic classes were positive over the five- and ten-year periods.

Each quarter, the Pension Plan reviews the performance of the total fund along with the underlying strategic classes and individual managers versus their appropriate benchmarks.

Market Review

As 2022 began, investors were riding the wave of strong returns over the last couple years and expectations were for inflation to be transitory, growth to fall slightly, and the Federal Reserve to raise interest rates to just below 1% by year-end. This clearly did not play out as inflation remained well above expectations and the Federal Reserve, and other central banks, raised interest rates at a pace we have not witnessed in a long time.

As some of the global population resumed activity like pre-pandemic times during the year, parts of the world remained on lockdown, notably China. With increased mobility and related improvements to economic growth, along with lingering supply issues from the pandemic, increases in prices began to

1 Aggressive Growth and Private Credit data is lagged one quarter.

BOSTON CHICAGO LONDON MIAMI NEW YORK PORTLAND SAN DIEGO

May 24, 2023

take center stage, especially among developed nations. At the end of January, the consumer price index ("CPI") in the United States hit 7.5%[1] for the first time since the early 1980s, a level well above the Federal Reserve's average target of 2%. As the year started, the Federal Reserve began to acknowledge that this bout with inflation may not be transitory, as it was previously labeled, and signaled that they intended to begin increasing the fed funds rate.

The unemployment rate remained elevated at the start of the year too at 6.7% but continued to improve over the first quarter declining to 6.1%[2] despite the Omicron variant. Average hourly earnings continued to rise during the quarter, reaching the 2022 peak of 5.9%[2] by quarter-end, a level still below inflation. The labor force participation rate remained below pre-pandemic levels as many workers stayed on the sidelines. This contributed to there being many more job openings than applicants, a trend that would continue for all of calendar year 2022.

In late February, Russia invaded Ukraine and the west responded with sweeping sanctions that exceeded market expectations. Restricting access to foreign reserves was key, leading Russia's central bank to dramatically increase interest rates (9.5% to 20%[3]) to try to protect the currency. Because of rising rates in the US, as well as safe-haven flows, the US dollar strengthened at the start of the year versus other currencies. This is a trend that would continue throughout the year. Concerns that inflation may remain higher for longer had been compounded by the tragic conflict in Ukraine. The war specifically weighed on energy and food prices.

As the first calendar quarter of the year ended, market volatility increased, driven by unrelenting inflation, expectations for policy to tighten much faster than previously expected, and Russia's invasion of Ukraine as well as its potential financial consequences for the global economy.

As a result, all major public market asset classes declined in the three months ending March, except for commodities. US equities (Russell 3000: -5.3%[3]) had similar declines compared to equities outside the US (MSCI ACWI ex. US: -5.4%[3]). Value stocks significantly outperformed growth stocks, and investors preferred companies presumably better able to weather the tightening financial conditions. An increase in inflation expectations, and the pricing in of higher policy rates, proved to be a challenging headwind for nearly all bond indices in the first calendar quarter of 2022, with only 3-month Treasury Bills providing positive returns. The broad US bond market (Bloomberg Aggregate) fell an impressive 5.9%[3] just in the first quarter.

The Federal Reserve started its rate increases with 50 basis point hikes in March and May. At the June 8, 2022, meeting, Federal Reserve policy makers increased rates by a surprising 75 basis points versus the 50 basis points expected. Shortly following this meeting in June, CPI was released showing that prices had increased to a multi-decade high of 9.1%[4], again above expectations. This surprised markets and put into question the idea that inflation was peaking, as well as accelerated investor expectations for the pace of the Fed tightening policy. High inflation levels and potentially rapidly rising rates also elevated concerns about the US economy, and others, heading into a recession.

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May 24, 2023

The US bond market (Bloomberg Aggregate) had its worst first half of a calendar year on record (-10.3%[3]) while the US equity market (S&P 500) had its 3rd worst first half of a year (-20.0%[3]). For historical perspective, this was the only start to a year where both indices were in top ten lists for negative performance. The decline in the S&P 500 through June 2022 also brought the index into bear market territory.

In Europe, the war in Ukraine, high inflation, slow growth, and a reliance on energy imports all weighed on markets. However, the European Central Bank had not yet begun to increase rates. Similarly, Japan seemed committed to their monetary policy of low rates, leading to weakness in the yen not seen since 1998. The MSCI EAFE index declined by 19.6%[3] through the first half of 2022. The strength of the US dollar played a significant role in the decline for US investors, with the index declining only 11.3% in local terms (much less than domestic equities). China had begun to relax COVID-Zero policies around the middle of the year leading to positive results (+3.4%[3]) for the MSCI China index in the second quarter. The gains contributed to the MSCI Emerging Markets index (-17.6%[3]) outpacing developed markets in the first six months of 2022.

The second half of calendar year 2022 started off with strong performance across global markets, especially in the US. Investors' optimism at the time was driven by a decline in inflation measures, as the CPI ticked down from 9.1% to 8.5% and came in below expectations[3]. This led to longer-dated yields falling as investors reconsidered economic growth prospects and the likelihood that yields had reached their peak for this economic cycle. Shorter dated yields rose on near-term monetary policy actions and messaging that policy officials intended to remain aggressive in fighting inflation pressures into early 2023. This messaging effectively started tightening financial conditions that had been loosening since the end of April.

It was also at the start of July when we first saw an inversion in the US yield curve. The yield spread between two-year and ten-year Treasuries, finished July at -0.23%[3]. Inversions in the yield curve have historically signaled building recessionary pressures.

The Federal Reserve raised interest rates by an additional 75 basis points[3] in July and again by the same amount in September. The European Central Bank also notably started increasing rates, moving off 0%. They increased rates by 50 basis points in July followed by a surprise 75 basis point increase in September.

Federal Reserve messaging about policy going forward, combined with outsized interest rate hikes due to the slow rate of decline in inflation and a strong labor market resulted in significant equity market declines in both August and September 2022. The September CPI release showed prices that increased 8.2% over the trailing twelve months, which was lower than the peak of 9.1% but still above the pace of market expectations at the time. The US bond market (Bloomberg Aggregate) continued its decline through the third quarter (-14.6%[3]) as did the US Equity Market (Russell 3000), which returned -24.6% year-to-date through September.

Independent Consultant's Report

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May 24, 2023

The last calendar quarter of 2022 started very strong for developed market equities, on returned signs that inflation may be peaking, monetary policy tightening may relatedly slow, and hopes for a soft-landing of major economies. However, as the quarter progressed, results were mixed by month and region as the world received mixed signals on inflation. Overall, US equities finished the fourth quarter up (Russell 3000: +7.2%[3]), while equities outside the US (MSCI ACWI ex. US: +14.3%) increased even more versus stocks in the US. The US bond market also finished the calendar quarter in positive territory (Bloomberg Aggregate: +1.9%).

Inflation, as measured by CPI, declined to 6.5% by the end of the year. While progress had been made since the 2022 peak of 9.1%, there was still much work to be done to bring the pace of price increases down to the Federal Reserve's preferred range. Except for Japan, inflation impacted the rest of the developed world as well. Inflation in the Eurozone ended the year at 9.2%, down from a peak of 10.6%[3]. Similarly, inflation in the UK ended the year at 9.2%, down from a peak of 9.6%[5].

The US labor market remained extraordinarily strong throughout 2022, with the unemployment rate declining to 3.5% at the end of the year from a starting point of 3.9%[3]. The labor force participation rate remained slightly above 62% for most of 2022. This is an increase from the lows of the pandemic but still below the 63.4%[2] level from before the pandemic. Average hourly earnings declined at the backend of 2022 after peaking at 5.9% in March, finishing the year at 4.8%. The strength of the labor market in the US contributed to the Federal Reserve's continued hawkish stance. In Europe and Japan, increases in unemployment were less during the pandemic compared to the US but also improved.

Economic growth in the US rebounded in the second half of 2022 after declining, respectively, at annualized rates of 1.6% and 0.6% in the first and second quarters. The GDP release for the third calendar quarter of 2022 came in at an annualized rate of 3.2%[6], and the most recent fourth quarter growth rate was 2.7%[6], resulting in full calendar year 2022 GDP growth of 2.1%[6]. Outside the US, the Euro area economy grew 3.5%[7], the UK at 4.1%[5], and Japan at 1.7%[8] over calendar year 2022. Looking forward, growth is expected to slow in 2023 with many forecasts being downgraded given inflation dynamics and expectations for policy. This upcoming year we will likely see how successful central banks are in reducing inflation while trying to not tip their respective economy into recession. Beyond 2023, growth is expected to return to pre-pandemic levels.

Over the full year, US stocks outperformed emerging markets but underperformed developed markets outside the US. The Russell 3000 returned -19.2%[3] for the year, compared to the MSCI EAFE at -14.5%[3], and a decline of -20.1%[3] for the MSCI Emerging Markets index. Though the MSCI China index had strong performance in the fourth quarter (+13.5%[3]) on reopening optimism, the full year return was -21.9%[3]. Within fixed income, the inflation adjustment helped TIPS' full year relative results as the Bloomberg TIPS index decreased 11.8%[3] over the full year, while the Bloomberg Aggregate index declined by -13.0%[3]. Riskier bonds declined overall too in 2022, but less than high quality bonds. The Bloomberg High Yield index fell 11.2% in 2022.

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May 24, 2023

Asset Liability Study

In 2022, SJCERA completed an extensive asset liability study. As a result of the asset liability study, SJCERA made several changes to its long-term portfolio targets. These changes included increases to the Broad Growth portfolio with Aggressive Growth and Traditional Growth classes increasing by 8% in aggregate. These move also lowered the allocation to Principal Protection, Credit and Crisis Risk Offset. The new strategic targets should improve the likelihood of the plan accomplishing its primary financial objective: to earn a long-term return of 6.75%.

Gross of Fees Investment Performance as of December 31, 2022*:

Asset Class			Annualized			
	Market Value ($000)	%**	1 Year	3 Years	5 Years	10 Years
SJCERA Total Plan	3,816,744	100.0	-6.7	5.1	5.5	6.2
Policy Benchmark			*-8.9*	*3.8*	*4.8*	*5.8*
Broad Growth	2,863,675	75.0	-8.2	5.8	6.4	7.4
Aggressive Growth	345,920	9.1	20.3	22.5	18.9	15.9
Aggressive Growth Blend			*0.3*	*11.7*	*9.6*	*9.3*
Traditional Growth	1,316,806	34.5	-17.7	2.6	4.2	7.5
MSCI ACWI IMI Net			*-18.4*	*4.4*	*5.7*	*8.5*
Stabilized Growth	1,200,948	31.5	-3.2	5.3	5.7	4.7
SJCERA Stabilized Growth Benchmark			*2.3*	*4.5*	*5.0*	*5.5*
Diversifying Strategies	815,322	21.4	0.9	2.3	2.7	3.9
Principal Protection	284,210	7.4	-9.8	-2.3	0.7	2.5
Bloomberg US Aggregate TR			*-13.0*	*-2.7*	*0.0*	*1.1*
Crisis Risk Offset	531,112	13.9	9.9	5.6	4.2	6.9
CRO Benchmark			*-4.8*	*2.5*	*3.2*	*3.5*
Cash	109,127	2.9	1.6	0.7	1.0	0.7
ICE BofA 91 Days T-Bills TR			*1.5*	*0.7*	*1.3*	*0.8*

*Rates of return are represented using a time-weighted rate of return methodology based upon market values.
**Actual % allocation as of December 31, 2022

1 Source: Bloomberg. Data as of January 31, 2022.
2 Source: Bureau of Labor Statistics.
3 Source: Bloomberg.
4 Source: Bloomberg. Data as of June 30, 2022.
5 Source: Office for National Statistics.
6 Source: Bureau of Economic Analysis.
7 Source: Eurostat.
8 Source: World Bank.

Investment

Asset Allocation as of December 31, 2022

	INVESTMENT	ACTUAL ALLOCATION	TARGET ALLOCATION
Aggressive Growth	$ 358,058,142	9.1%	16.0%
Traditional Growth	1,316,293,371	33.5%	34.0%
Risk Parity	358,053,342	9.1%	6.0%
Credit	579,784,841	14.8%	15.0%
Core Real Assets	531,550,354	13.5%	9.0%
Principal Protection	278,165,455	7.1%	7.0%
Crisis Risk Offset (CRO)	238,796,399	6.1%	13.0%
Cash and Short Term Investments	266,968,583	6.8%	0.0%
TOTAL	$ 3,927,670,487	100.0%	100.0%

List of Largest Assets Held

Largest Stock Holdings (By Fair Value)

DECEMBER 31, 2022

	STOCKS	SHARES	FAIR VALUE
1	SJC-NT Collective MSCI World I	9,884,152	$ 1,142,805,711
2	*SJC Panagora Diversified Risk	1,444,389	175,868,070
3	*SJC Lombard Odier Asset Mgmt	6,994,650	55,784,436
4	*SJC Stone Hrbr Absolute	14,488	19,974,862
5	*SJC Invesco Real Estate	18,674	3,956,274
6	*SJC Invesco Real Estate	32,824	3,700,250
7	*SJC Invesco Real Estate	2,941	1,926,443
8	*SJC Invesco Real Estate	13,053	1,866,579
9	*SJC Invesco Real Estate	27,162	1,722,886
10	*SJC Invesco Real Estate	44,323	1,716,630

A complete list of the stock holdings is available upon request.

Largest Bond Holdings (By Fair Value)

DECEMBER 31, 2022

	STOCKS	PAR	FAIR VALUE
1	*SJC Loomis Sayles-SL	8,654,148	$ 90,176,224
2	SJC Neuberger Berman	2,858,324	25,982,168
3	*SJC-Dodge & Cox Long Durat-SL	20,000,000	16,578,906
4	SJC Neuberger Berman	280,222	14,445,421
5	*SJC Stone Hrbr Absolute	2,047,386	14,004,117
6	*SJC-Dodge & Cox Long Durat-SL	18,000,000	13,576,641
7	*SJC-Dodge & Cox Long Durat-SL	9,100,000	9,486,750
8	*SJC-Dodge & Cox Long Durat-SL	10,900,000	9,482,574
9	*SJC-Dodge & Cox Long Durat-SL	18,000,000	9,117,721
10	SJC Neuberger Berman	98,044	8,293,542

A complete list of the bond holdings is available upon request.

Schedule of Investment Fees

	2022 ASSETS MANAGED	2022 FEES
INVESTMENT MANAGEMENT FEES		
Aggressive Growth	$ 358,058,142	$ 9,116,460
Traditional Growth	1,316,293,371	1,134,789
Risk Parity	358,053,342	1,520,367
Credit	579,784,841	4,657,047
Principal Protection	278,165,455	501,341
Credit Risk Offset	238,796,399	6,723,746
Core Real Assets - Short Term Investments / Cash / Cash Equivalents	798,518,937	145,994
TOTAL ASSETS MANAGED AND INVESTMENT MANAGEMENT FEES	$ 3,927,670,487	$ 23,799,744

Schedule of Commissions

FOR THE YEAR ENDED DECEMBER 31, 2022

RANK	BROKER	COMMISSION PAID	SHARE PAR VALUE TRADED	COMMISSION PER SHARE**
1	Citigroup Global Markets, Inc.	$ 22,393.20	747,414	$0.03
2	U.S. Physicals	9,480.56	1,000,000	$0.01
3	J.P. Morgan Securities, LLC / JPMC	6,824.11	341,169	$0.02
4	Barclays Capital, Inc. / LE	4,614.45	264,566	$0.02
5	Bank of America Corporation	1,465.65	229,898	$0.01
6	ISI Group, Inc.	1,411.09	77,034	$0.02
7	Goldman, Sachs and Co.	495.86	24,791	$0.02
8	Liquidnet, Inc.	400.90	20,405	$0.02
9	RBC Capital Markets, LLC	385.14	29,679	$0.01
10	Cantor Fitzgerald & Co.	228.41	11,593	$0.02
11	Others*	245.69	11,832	$0.02
	TOTAL BROKERAGE COMMISSIONS	$ 47,945.06	2,758,381	

* Includes approximately 16 additional firms each with less than 0.29% of total commissions.
** Annual Average Commision per Share

Investment Summary

		FAIR VALUE DECEMBER 31, 2022	PERCENTAGE OF MARKET VALUE
AGGRESSIVE GROWTH — PRIVATE EQUITY & OPPORTUNISTIC REAL ESTATE			
Almanac Realty	$	4,004,118	0.1%
Angelo Gordon & Co.		9,776,790	0.2%
Berkeley Partners		29,895,103	0.8%
Blackrock Global Energy & Power		37,457,395	1.0%
Blackrock Global Infrastructure Fund IV		3,281,029	0.1%
Grandview fka Greenfield VIII		17,382,607	0.4%
Greenfield V		216,175	0.0%
Greenfield VI		23,599	0.0%
Greenfield VII		2,314,538	0.1%
Lightspeed Venture Ptr Select V		8,406,757	0.2%
Miller Global Fund VI		15,639	0.0%
Miller Global Fund VII		1,794	0.0%
Morgan Creek III		4,660,219	0.1%
Morgan Creek V		6,974,665	0.2%
Morgan Creek VI		23,692,977	0.6%
Ocean Avenue II		37,682,566	1.0%
Ocean Avenue III		52,236,036	1.3%
Ocean Avenue IV		53,712,478	1.4%
Stellex Capital Partners I		30,436,049	0.8%
Stockbridge Value Fund II		28,441,044	0.7%
Walton Street Fund V		1,047,788	0.0%
Walton Street Fund VI		6,398,776	0.2%
TOTAL AGRESSIVE GROWTH	$	358,058,142	9.1%
TRADITIONAL GROWTH			
NT Collective MSCI World IMI	$	1,142,808,772	29.1%
GQG Partners		55,830,063	1.4%
Invesco REIT		41,677,419	1.1%
PIMCO RAE FUNDAMENTAL (Research Affiliates) Emerging		75,977,117	1.9%
TOTAL TRADITIONAL GROWTH	$	1,316,293,371	33.5%
RISK PARITY			
Bridgewater All-Weather	$	182,185,272	4.6%
PanAgora Diversified Risk		175,868,070	4.5%
TOTAL RISK PARITY	$	358,053,342	9.1%
CREDIT			
Blackrock Direct Lending	$	91,373,667	2.3%
Crestline – Opportunity Fund II		14,598,388	0.4%
Davidson Kempner		47,376,527	1.2%
HPS Investment Partners		25,485,809	0.6%
Medley Opportunity Fund II		4,378,784	0.1%

(Continued on page 69)

Investment Summary (cont.)

		FAIR VALUE DECEMBER 31, 2022	PERCENTAGE OF MARKET VALUE
Mesa West III & IV	$	37,723,246	1.0%
Neuberger Berman		95,072,618	2.4%
Oaktree Middle Market		30,874,431	0.8%
Raven Capital – Fund III		58,435,316	1.5%
Stone Harbor – Absolute Return		111,442,669	2.8%
White Oak Summit		24,855,132	0.6%
White Oak Yield Spectrum		38,168,254	1.0%
TOTAL CREDIT	$	579,784,841	14.8%
CRISIS RISK OFFSET (CRO)			
AQR Style Premia	$	55,128,736	1.4%
Dodge & Cox Long Duration		112,274,266	2.9%
Graham Tactical Trend		118,637,713	3.0%
Lombard Odier		55,784,436	1.4%
Mount Lucas – Managed Futures		122,565,253	3.1%
PE Diversified Global Macro / Almond Global		67,159,950	1.7%
TOTAL CRISIS RISK OFFSET (CRO)	$	531,550,354	13.5%
PRINCIPAL PROTECTION			
Dodge & Cox – Fixed	$	187,989,171	4.8%
Loomis Sayles		90,176,224	2.3%
Double Line – MBS		60	0.0%
TOTAL PRINCIPAL PROTECTION	$	278,165,455	7.1%
CORE REAL ASSETS			
Principal U.S. Property	$	43,794,434	1.1%
Prologis / AMB Propery		131,932,363	3.4%
RREEF America II		63,034,561	1.6%
Parametric PIOS		35,040	0.0%
TOTAL CORE REAL ASSETS	$	238,796,399	6.1%
TOTAL INVESTMENTS AT FAIR VALUE	$	3,660,701,904	
CASH AND SHORT TERM INVESTMENTS			
STIF – Northern Trust	$	134,928,273	3.4%
Security Lending Cash		125,564,605	3.2%
Cash - Bank of the West		42,386	0.0%
Parametric PIOS		4,678,953	0.1%
Stone Harbor Absolute & Nueberger Berman		1,754,367	0.0%
TOTAL CASH AND SHORT TERM INVESTMENTS	$	266,968,583	6.8%
TOTAL	$	3,927,670,487	100.0%

List of Investment Managers

AGGRESSIVE GROWTH

Almanac Realty
Angelo Gordon & Co.
Berkeley Partners
Blackrock Energy & Power
Blackrock Global Infrastructure Fund IV
Grandview I-A
Greenfield V
Greenfield VI
Greenfield VII
Lightspeed Venture Partners Select V
Miller Global Fund VI
Miller Global Fund VII
Morgan Creek III
Morgan Creek V
Morgan Creek VI
Ocean Avenue II
Ocean Avenue III
Ocean Avenue IV
Stellex Capital Partners II
Stockbridge Value Fund II
Walton Street Fund V
Walton Street Fund VI

CREDIT

Blackrock Direct Lending
Crestline – Opportunity Fund II
Davidson Kempner
HPS Investment Partners
Medley Opportunity Fund II
Mesa West III
Mesa West IV
Neuberger Berman
Oaktree Middle Market
Raven Capital – Fund III
Stone Harbor – Absolute Return
White Oak Summit
White Oak Yield Spectrum

CRISIS RISK OFFSET (CRO)

AQR Style Premia
Dodge & Cox Long Duration
Graham Tactical Trend
Lombard Odier
Mount Lucas – Managed Futures
PE Diversified Global Macro / Almond Global

TRADITIONAL GROWTH

GQG Partners
Invesco REIT
NT Collective MSCI World IMI
PIMCO RAE Emerging Markets Fund

PRINCIPAL PROTECTION

Dodge & Cox – Fixed
Double Line – MBS
Loomis Sayles

RISK PARITY

Bridgewater All-Weather
PanAgora Diversified Risk

CORE REAL ASSETS

Parametric PIOS
Principal U.S. Property
Prologis / AMB Property
RREEF America II

CASH AND SHORT TERM INVESTMENTS

Cash – Bank of the West
Neuberger Berman
Parametric PIOS
STIF – Northern Trust
Stone Harbor Absolute Cash

Actuarial

CHEIRON Classic Values, Innovative Advice

Via Electronic Mail

May 25, 2023

Retirement Board of San Joaquin
County Employees' Retirement Association
6 South El Dorado Street, Suite 400
Stockton, California 95202

Actuarial Certification

Dear Members of the Board,

This is the Actuary's Certification Letter for the Actuarial Section of the Annual Comprehensive Financial Report for the San Joaquin County Employees' Retirement Association (the Plan) as of December 31, 2022. This letter includes references to two documents produced by Cheiron for the Plan: the Actuarial Valuation Report as of January 1, 2022 (August 31, 2022) and the GASB 67/68 Report as of December 31, 2022 (May 17, 2023).

Actuarial Valuation Report as of January 1, 2022

The purpose of the annual Actuarial Valuation Report as of January 1, 2022 is to determine the actuarial funding status of the Plan on that date and to calculate recommended contribution rates for the participating employers and Plan members for the year 2023. The prior review was conducted as of January 1, 2021 and included recommended contribution rates for the year 2022.

Actuarial funding is based on the Entry Age Normal Cost Method. Under this method, the employer contribution rate provides for current cost (normal cost and expected administrative expenses) plus a level percentage of payroll to amortize the unfunded actuarial liability (UAL). As of the valuation date (January 1, 2022), the amortization period is 17 years for half of the 2008 investment loss and 11 years for the remaining UAL as of January 1, 2014. Any unexpected change in the UAL occurring after January 1, 2014 is amortized over a closed 15-year period. At the February 14, 2020 board meeting, the SJCERA Board of Retirement chose to phase-in the impact of the January 1, 2020 economic assumption changes to the UAL over a period of three years, followed by 12 years of payments as a level percentage of payroll. The single equivalent amortization period for the aggregate stream of UAL payments as of January 1, 2022 is 12 years.

The funding objective of the Plan is to accumulate sufficient assets over each Member's working life to provide for Plan benefits after termination of employment or retirement. For actuarial valuation purposes, Plan assets are valued at Actuarial Value, with adjustments for certain Special Reserves. Under this method, the assets used to determine employer contribution rates take into account market value by spreading all investment gains and losses (returns above or below expected returns) over a period of five years, limited by a corridor that restrains the Actuarial Value to within 20% of the market value of assets.

www.cheiron.us 1.877.CHEIRON (243.4766)

Actuary's Certification Letter

Board Members
May 25, 2023
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The Board of Retirement is responsible for establishing and maintaining the funding policy of the Plan.

We prepared the following schedules, which we understand will be included in the Actuarial Section of the Annual Comprehensive Financial Report, based on the January 1, 2022 actuarial valuation. All historical information prior to the January 1, 2013 actuarial valuation shown in these schedules is based on information reported by EFI Actuaries, which was acquired by Cheiron in January 2013.

- Summary of Actuarial Assumptions and Methods
- Schedule of Active Member Valuation Data
- Schedule of Retirees and Beneficiaries Valuation Data
- Retirants and Beneficiaries Added to and Removed from Retiree Payroll
- Schedule of Funded Liabilities by Type
- Actuarial Value of Assets and Reserves
- Summary of Plan Provisions

The assumptions used in this report reflect the results of an Experience Study performed by Cheiron covering the period from January 1, 2019 through December 31, 2021 and approved by the Board at their July 7, 2022 meeting. The assumptions used in the most recent valuation are intended to produce results that, in the aggregate, reasonably approximate the anticipated future experience of the Plan. The next experience analysis is expected to cover the years through 2024.

This actuarial valuation report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board as well as applicable laws and regulations. In particular, the assumptions and methods used for funding purposes meet the requirements of the Actuarial Standards of Practice, in particular Standards No. 4, 27, 35, and 44.

GASB 67/68 Report as of December 31, 2022

The purpose of the GASB 67/68 Report as of December 31, 2022, is to provide accounting and financial reporting information under GASB 67 for the Plan and under GASB 68 for the County of San Joaquin and other participating employers. This report is not appropriate for other purposes, including the measurement of funding requirements for the Plan.

For financial reporting purposes, the Total Pension Liability is based on the January 1, 2022 actuarial valuation updated to the measurement date of December 31, 2022. There were no significant events between the valuation date and the measurement date, so the update procedures consisted of updated actuarial assumptions, plus the addition of service cost and interest cost offset by actual benefit payments.

CHEIRON

Board Members
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Beginning of year measurements are based on the actuarial valuation as of January 1, 2021. The December 31, 2021 Total Pension Liability presented in the GASB 67/68 Report was based upon the same data, plan provisions, actuarial methods, and assumptions as were used in the Actuarial Valuation Report as of January 1, 2021. The December 31, 2022 Total Pension Liability presented in the GASB 67/68 Report was based upon the same data, plan provisions, actuarial methods, and assumptions as were used in the Actuarial Valuation Report as of January 1, 2022.

Please refer to our GASB 67 report as of December 31, 2022 for additional information related to the financial reporting of the System. We prepared the following schedules for inclusion in the Financial Section of the Annual Comprehensive Financial Report based on the December 31, 2022 GASB 67/68 report:

- Change in Net Pension Liability
- Sensitivity of Net Pension Liability to Changes in Discount Rate
- Schedule of Changes in Net Pension Liability and Related Ratios
- Schedule of Employer Contributions
- Notes to the Schedule of Employer Contributions

The GASB 67 report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board as well as applicable laws and regulations. In particular, the assumptions and methods used for disclosure purposes have been prepared in accordance with our understanding of generally accepted accounting principles as promulgated by the GASB.

Disclaimers

In preparing our reports, we relied on information (some oral and some written) supplied by the San Joaquin County Employees' Retirement Association. This information includes, but is not limited to, the plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

Future actuarial measurements may differ significantly from the current measurements due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; and changes in plan provisions or applicable law.

Cheiron utilizes ProVal, an actuarial valuation application leased from Winklevoss Technologies (WinTech) to calculate liabilities and project benefit payments. We have relied on WinTech as the developer of ProVal. We have reviewed ProVal and have a basic understanding of it and have used ProVal in accordance with its original intended purpose. We have not identified any material inconsistencies in assumptions or output of ProVal that would affect our reports.

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Actuary's Certification Letter

Board Members
May 25, 2023
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Cheiron's reports were prepared for the Plan for the purposes described herein and for the use by the plan auditor and participating employers' auditors in completing an audit related to the matters herein. Other users of these reports are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to such other users.

As credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinions contained in these reports. These reports do not address any contractual or legal issues. We are not attorneys, and our firm does not provide any legal services or advice.

Respectfully Submitted,
Cheiron

Graham Schmidt, ASA, EA, MAAA, FCA
Consulting Actuary
703-893-1456 x1137
gschmidt@cheiron.us

Anne Harper, FSA, EA, MAAA
Principal Consulting Actuary
703-893-1456 x1107
aharper@cheiron.us

CHEIRON

Summary of Actuarial Assumptions and Methods

Actuarial assumptions and methods are both recommended by our actuarial consultant, Cheiron, and adopted by the Board of Retirement on an annual basis. The most current Actuarial Valuation was conducted on January 1, 2022, for the period ending December 31, 2021.

An Experience Analysis is completed once every three years. The most recent Experience Analysis was conducted on August 10, 2022, for the years 2019 through 2021.

ACTUARIAL COST METHOD	Entry Age Normal Cost Method
UNFUNDED LIABILITY	The excess of the Actuarial Liability over Plan assets is the Unfunded Actuarial Liability (UAL). Half the actuarial loss experienced in 2008 was deemed to be an Extraordinary Actuarial Loss. Thus, 50 percent of the loss is separately amortized as a level percentage of pay over a closed 30-year period, with 17 years remaining as of January 1, 2022. The remainder of the Plan's UAL as of January 1, 2014, is being amortized over a closed 19-year period, with 11 years remaining as of January 1, 2022, decreasing by one year in each annual valuation report. All subsequent unexpected change in the UAL after January 1, 2014, is amortized over 15 years. The UAL payment for the 2020 assumption change is being phased in over a three-year period.
VALUATION INTEREST RATE	The annual rate of return on all Plan assets is assumed to be 6.75 percent net of investment expenses.
INFLATION ASSUMPTION	2.60 percent per annum
ADMINISTRATIVE EXPENSES	Administrative expenses are assumed to be $5,173,647 for the next year, to be split between employees and employers based on their share of the overall contributions. Expenses are expected to grow with the cost of living by 2.75 percent per year.
POST RETIREMENT COLA	Benefits are assumed to increase after retirement at the rate of 2.6 percent per year.
INCREASES IN PAY	Assumed pay increases for active members consist of increases due to base salary adjustments plus service-based increases due to longevity and promotion. Rates vary by age and classification (See *Salary Scale Schedule*).
ASSET VALUATION METHOD	The Plan uses a modified market-related value method called the Actuarial Value of Plan Assets. The fair value of assets is adjusted to recognize, over a five-year period, differences between actual investment earnings and the assumed investment return. Accordingly, only 20 percent of this difference is being recognized in any one year (See *Actuarial Value of Assets Schedule*).

(*Continued on page 77*)

Summary of Actuarial Assumptions and Methods

HEALTHY MEMBER MORTALITY	Mortality rates for General active members are based on the sex distinct 2021 CalPERS Pre-Retirement Non-Industrial Mortality Table, with generational mortality improvements projected from 2017 using 80% Projection Scale MP-2020. Mortality rates for Safety active members are based on the sum of the rates from 2021 CalPERS Industrial and Non-Industrial Mortality tables, with generational mortality improvements projected from 2017 using 80% of Projection Scale MP-2020. 10 percent of Safety member active deaths are assumed to occur in the line of duty. Mortality rates for healthy General annuitants are based on the sex distinct 2021 CalPERS Healthy Annuitant Mortality Tables, with generational mortality improvements projected from 2017 using 80% of Projection Scale MP-2020, and a partial credibility adjustment of 1.05 for males and no adjustment for females. Mortality rates for Safety annuitants are based on the sex distinct 2021 CalPERS Healthy Annuitant Mortality Table, with generational mortality improvements projected from 2017 using 80% of Projection Scale MP-2020, and a partial credibility adjustment of 1.05 for males and no adjustment for females.
DISABLED MEMBER MORTALITY	Mortality rates for General disabled annuitants are based on status. Rates for General disabled annuitants with a service-related disability are based on the sex distinct 2021 CalPERS Industrial Disabled Annuitant Mortality Table, with generational mortality improvements projected from 2017 using 80% of Projection Scale MP-2020. Rates for General disabled annuitants with a non-service-related disability are based on the sex distinct 2021 CalPERS Non-Industrial Disabled Annuitant Mortality Table, with a generational mortality improvement asset projected from 2017 using 80% of Projection Scale MP-2020. Mortality rates for Safety disabled annuitants are based on the sex distinct 2021 CalPERS Industrially Disabled Mortality Table, with generational mortality improvements projected from 2017 using Projection 80% of Scale MP-2020.
VESTED TERMINATION RATES	Rates vary by service and classification (See *Probabilities of Separation Schedule*).
WITHDRAWAL RATES	Rates vary by service and classification (See *Probabilities of Separation Schedule*).
DISABILITY RATES	Rates vary by age, gender and classification (See *Probabilities of Separation Schedule*).

(*Continued on page 78*)

Summary of Actuarial Assumptions and Methods

DUTY DISABILITY RATES	Rates vary by age, gender and classification (See *Probabilities of Separation Schedule*).
SERVICE RETIREMENT RATES	Rates vary by age, service, gender and classification (See *Probabilities of Separation Schedule*).
FAMILY COMPOSITION	Male members are assumed to be three years older than their spouses. Female members are assumed to be two years younger than their spouses. It is assumed that 90% of participants with eligible beneficiaries who do not have a service-related disability elect the 60% Joint and Survivor allowance. 55 percent of female members and 75 percent of male members who retire, become disabled, or die during active service are assumed to be married.
WITHDRAWALS	Rates of withdrawal apply to active Members who terminate their employment and withdraw their member contributions, forfeiting entitlement to future Plan benefits. 50 percent of all General Member terminations with less than five years of service, 25 percent of those with five to 14 years of service, and 10 percent of those with 15 or more years of service, are assumed to take a refund of contributions. 50 percent of all Safety Member terminations with less than five years of service, 20 percent of those with five to 14 years of services, and 15 percent of those with 15 or more years of service, are assumed to take a refund of contributions.
VESTED TERMINATIONS	75 percent of vested terminated General Members with less than five years of service, 25 percent of those with five to 14 years of service, and 40% of those with 15 or more years of service, are assumed to be reciprocal. 67 percent of vested terminated Safety Members with less than five years of service, and 50 percent of those with five or more years of service, are assumed to be reciprocal.
DEFERRAL AGE FOR VESTED TERMINATORS	Vested terminated General Members are assumed to begin receiving benefits at age 58. Vested terminated Safety Members are assumed to begin receiving benefits at age 50, unless they have outgoing reciprocity, in which case they are assumed to begin receiving benefits at age 53.
EMPLOYMENT STATUS	No future transfers among member groups are assumed.

Schedule of Active Member Valuation Data

ACTUARIAL VALUATION DATE	PLAN TYPE	MEMBERS	ANNUAL PAYROLL	AVERAGE ANNUAL SALARY	AVERAGE SALARY INCREASE
01/01/2022	General	5,492	$ 424,197,359	$ 77,239	2.89%
	Safety	837	77,959,639	93,142	2.99%
	TOTAL	6,329	$ 502,156,998	$ 79,342	2.93%
01/01/2021	General	5,518	414,244,475	75,071	2.50%
	Safety	832	75,245,783	90,440	3.38%
	TOTAL	6,350	$ 489,490,258	$ 77,085	2.61%
01/01/2020	General	5,526	404,710,743	73,238	-0.03%
	Safety	843	73,747,564	87,482	3.51%
	TOTAL	6,369	$ 478,458,307	$ 75,123	0.45%
01/01/2019	General	5,485	401,820,940	73,258	3.21%
	Safety	860	72,680,957	84,513	1.26%
	TOTAL	6,345	$ 474,501,897	$ 74,784	2.89%
01/01/2018	General	5,370	381,151,442	70,978	0.63%
	Safety	848	70,776,611	83,463	0.14%
	TOTAL	6,218	$ 451,928,053	$ 72,681	0.61%
01/01/2017	General	5,291	373,202,798	70,535	6.22%
	Safety	811	67,593,920	83,346	-0.55%
	TOTAL	6,102	$ 440,796,718	$ 72,238	5.10%
01/01/2016	General	5,131	340,731,847	66,407	0.36%
	Safety	793	66,456,278	83,804	1.19%
	TOTAL	5,924	$ 407,188,125	$ 68,735	0.22%
01/01/2015	General	4,879	322,836,680	66,169	-0.86%
	Safety	827	68,491,483	82,819	1.57%
	TOTAL	5,706	$ 391,328,163	$ 68,582	-0.44%
01/01/2014	General	4,748	316,885,044	66,741	-0.57%
	Safety	805	65,640,055	81,540	1.69%
	TOTAL	5,553	$ 382,525,099	$ 68,886	-0.31%
01/01/2013	General	4,492	301,505,122	67,120	-0.08%
	Safety	803	64,386,900	80,183	1.79%
	TOTAL	5,295	$ 365,892,022	$ 69,101	0.19%

Payroll figures represent active member's annualized pay rates on December 31. The most current Actuarial Valuation was conducted on January 1, 2022 for the period ending December 31, 2021. The information in subsequent year is currently not available.

Schedule of Retirees and Beneficiaries Valuation Data

ACTUARIAL VALUATION DATE	PLAN TYPE	MEMBER RETIREMENTS	BENEFICIARY CONTINUANCE	MEMBERS AND BENEFICIARIES REMOVED	TOTAL RETIREES ON PAYROLL	ANNUAL RETIREMENT PAYROLL	AVERAGE ANNUAL ALLOWANCE	AVERAGE ALLOWANCE % INCREASE
	General	246	58	159	5,395	$ 192,121,249	$ 35,611	2.3%
	Safety	48	24	36	1,147	71,998,606	62,771	0.8%
01/01/2022	TOTAL	294	82	195	6,542	$ 264,119,855	$ 40,373	1.9%
	General	237	47	159	5,250	$ 182,786,202	$ 34,816	3.9%
	Safety	37	10	19	1,111	69,214,609	62,299	2.5%
01/01/2021	TOTAL	274	57	178	6,361	$ 252,000,811	$ 39,617	3.5%
	General	237	57	179	5,125	$ 171,791,597	$ 33,520	3.9%
	Safety	49	13	22	1,083	65,822,764	60,778	3.3%
01/01/2020	TOTAL	286	70	201	6,208	$ 237,614,361	$ 38,276	3.9%
	General	290	47	133	5,010	$ 161,602,326	$ 32,256	3.9%
	Safety	39	8	20	1,043	61,364,472	58,835	3.4%
01/01/2019	TOTAL	329	55	153	6,053	$ 222,966,798	$ 36,836	3.6%
	General	249	49	149	4,806	$ 149,183,295	$ 31,041	3.6%
	Safety	46	12	13	1,016	57,837,517	56,927	1.4%
01/01/2018	TOTAL	295	61	162	5,822	$ 207,020,812	$ 35,558	3.1%
	General	251	40	128	4,657	$ 139,511,334	$ 29,957	3.6%
	Safety	40	12	22	971	54,508,607	56,137	4.0%
01/01/2017	TOTAL	291	52	150	5,628	$ 194,019,941	$ 34,474	3.7%
	General	228	45	136	4,494	$ 129,928,957	$ 28,912	4.4%
	Safety	54	15	19	941	50,813,875	54,000	4.9%
01/01/2016	TOTAL	282	60	155	5,435	$ 180,742,832	$ 33,255	4.8%
	General	247	51	112	4,358	$ 120,722,240	$ 27,701	5.2%
	Safety	29	14	21	891	45,889,472	51,503	2.8%
01/01/2015	TOTAL	276	65	133	5,249	$ 166,611,712	$ 31,742	4.3%
	General	213	52	134	4,172	$ 109,864,971	$ 26,334	4.3%
	Safety	22	11	20	869	43,546,661	50,111	2.1%
01/01/2014	TOTAL	235	63	154	5,041	$ 153,411,632	$ 30,433	3.5%
	General	278	27	135	4,041	$ 102,025,575	$ 25,248	5.2%
	Safety	52	12	20	856	42,008,598	49,075	4.9%
01/01/2013	TOTAL	330	39	155	4,897	$ 144,034,173	$ 29,413	5.2%

Payroll figures represent year end monthly retirement benefits annualized and exclude Post-Employment Healthcare benefits and benefits. The most current Actuarial Valuation was conducted on January 1, 2022 for the period ending December 31, 2021. The information in subsequent year is currently not available.

Retirees and Beneficiaries Added to and Removed from Retiree Payroll

	ADDED TO ROLLS		REMOVED FROM ROLLS		ROLLS AT YEAR END			
FISCAL YEAR	MEMBER COUNT	ANNUAL ALLOWANCE (IN 000'S)*	MEMBER COUNT	ANNUAL ALLOWANCE (IN 000'S)	MEMBER COUNT	ANNUAL ALLOWANCE (IN 000'S)	% INCREASE IN RETIREE ALLOWANCE	AVERAGE ANNUAL ALLOWANCE
2022	312	$ 20,427	(169)	$ (5,447)	6,685	$ 279,100	3.41%	$ 41,750
2021	376	19,519	(195)	(7,400)	6,542	264,120	1.91%	40,555
2020	333	19,967	(180)	(5,580)	6,361	252,001	3.50%	39,617
2019	355	20,574	(200)	(5,927)	6,208	237,614	3.91%	38,276
2018	382	19,839	(151)	(3,893)	6,053	222,967	3.59%	36,836
2017	355	17,288	(161)	(4,287)	5,822	207,021	3.15%	35,558
2016	343	17,151	(150)	(3,868)	5,628	194,020	3.66%	34,474
2015	341	17,766	(155)	(3,651)	5,435	180,737	4.77%	33,255
2014	340	16,230	(132)	(3,030)	5,249	166,612	4.30%	31,742
2013	297	12,908	(153)	(3,530)	5,041	153,412	3.47%	30,433

* Includes COLA amounts not included in previous year's Annual Allowance totals.

Schedule of Funded Liabilities by Type

(DOLLARS IN THOUSANDS)								
	ACTUARIAL ACCRUED LIABILITY							
ACTUARIAL VALUATION DATE	(1) ACTIVE MEMBERS CONTRIBUTIONS	(2) RETIREES AND BENEFICIARIES	(3) ACTIVE MEMBERS (EMPLOYER FINANCED PORTION)	TOTAL ACTUARIAL ACCRUED LIABILITY	ACTUARIAL VALUE OF ASSETS	PORTION OF ACCRUED LIABILITIES COVERED BY REPORTED ASSETS (1)	(2)	(3)
1/1/2022	$ 457,136	$ 3,436,812	$ 1,429,840	$ 5,323,789	$ 3,852,266	100%	99%	0.0%
1/1/2021	426,570	3,328,307	1,452,792	5,207,669	3,487,424	100%	92%	0.0%
1/1/2020	396,549	3,162,983	1,454,101	5,013,632	3,226,099	100%	89%	0.0%
1/1/2019	368,550	2,910,061	1,442,676	4,721,287	3,044,898	100%	92%	0.0%
1/1/2018	344,504	2,706,791	1,445,681	4,496,976	2,913,161	100%	95%	0.0%
1/1/2017	318,021	2,513,640	1,403,433	4,235,094	2,733,852	100%	96%	0.0%
1/1/2016	297,179	2,347,908	1,361,303	4,006,390	2,604,473	100%	98%	0.0%
1/1/2015	276,818	2,117,010	1,337,806	3,731,634	2,471,291	100%	100%	6.0%
1/1/2014	258,198	1,956,931	1,346,730	3,561,859	2,285,166	100%	100%	5.0%
1/1/2013	209,987	1,810,776	1,332,531	3,353,294	2,125,700	100%	100%	8.0%
1/1/2012	$ 202,925	$ 1,627,338	$ 1,218,058	$ 3,048,321	$ 2,130,053	100%	100%	25.0%

This schedule excludes, POST 4/1/82 Retiree Class Action Settlement Reserve and Unapportioned Earnings Reserve. The most current Actuarial Valuation was conducted on January 1, 2022 for the period ending December 31, 2021. The information in subsequent year is currently not available.

Schedule of Funding Progress Defined Benefit Pension Plan

FOR THE LAST TEN FISCAL YEARS ENDED DECEMBER 31

(DOLLARS IN THOUSANDS)						
ACTUARIAL VALUATION DATE	ACTUARIAL VALUE OF ASSETS[1] (A)	ACTUARIAL LIABILITY (AL) (B)	UNFUNDED ACTUARIAL LIABILITY (UAL) (B-A)	FUNDED RATIO (A/B)	COVERED PAYROLL[2] (C)	UAL AS A PERCENTAGE OF ANNUAL COVERED PAYROLL ((B-A)/C)
1/1/2022	$ 3,852,266	$ 5,323,789	$ 1,471,523	72.4%	$ 502,157	293.0%
1/1/2021	3,487,424	5,207,669	1,720,245	67.0%	496,778	346.3%
1/1/2020	3,226,099	5,013,632	1,787,533	64.3%	485,582	368.1%
1/1/2019	3,044,897	4,721,287	1,676,390	64.5%	481,917	347.9%
1/1/2018	2,913,161	4,496,976	1,583,815	64.8%	458,991	345.1%
1/1/2017	2,733,852	4,235,094	1,501,242	64.6%	447,685	335.3%
1/1/2016	2,604,473	4,006,390	1,401,917	65.0%	413,552	339.0%
1/1/2015	2,471,291	3,731,634	1,260,343	66.2%	397,636	317.0%
1/1/2014	2,285,166	3,561,859	1,276,693	64.2%	388,691	328.5%
1/1/2013	$ 2,125,700	$ 3,353,294	$ 1,227,594	63.4%	$ 365,892	335.5%

[1] The actuarial value of assets reflects the smoothing method that adjusts market value differences between the assumed and the actual investment return over a 5-year period.

[2] Represents the annualization of active members' pay rates on December 31 as determined by the actuarial study.

Assumed Probabilities of Separation from Active Membership (General)

AGE	NON-DUTY DEATH	ORDINARY DISABILITY	SERVICE RETIREMENT[1]	DUTY DEATH	DUTY DISABILITY
GENERAL MEMBERS - MALE					
20	0.0004	0.000	0.000	0.000	0.001
25	0.0004	0.000	0.000	0.000	0.001
30	0.0005	0.000	0.000	0.000	0.001
35	0.0007	0.000	0.000	0.000	0.001
40	0.0009	0.001	0.000	0.000	0.004
45	0.0010	0.001	0.000	0.000	0.004
50	0.0013	0.001	0.030	0.000	0.003
55	0.0019	0.001	0.065	0.000	0.004
60	0.0029	0.001	0.090	0.000	0.004
65	0.0041	0.001	0.250	0.000	0.005
GENERAL MEMBERS - FEMALE					
20	0.0001	0.000	0.000	0.000	0.000
25	0.0001	0.000	0.000	0.000	0.000
30	0.0002	0.000	0.000	0.000	0.000
35	0.0003	0.000	0.000	0.000	0.000
40	0.0004	0.001	0.000	0.000	0.000
45	0.0005	0.002	0.000	0.000	0.001
50	0.0008	0.002	0.035	0.000	0.001
55	0.0012	0.002	0.035	0.000	0.001
60	0.0018	0.001	0.125	0.000	0.000
65	0.0025	0.002	0.300	0.000	0.001

[1] Lower rates assumed for members with less than 10 years of service, and higher rates assumed for members with at least 30 years of service.

The probabilities for each cause of separation represent the likelihood that a given member will separate at a particular age for the indicated reason. As an example, if the probability of separation of a male general member at age 20 is 0.036, that indicates that 3.6% of active general members are expected to separate from service during the year. Rates of Duty and Non-Duty Death are for active members who reach the given age during 2022.

Assumed Probabilities of Separation from Active Membership (Safety)

AGE	NON-DUTY DEATH	ORDINARY DISABILITY	SERVICE RETIREMENT[1]	DUTY DEATH	DUTY DISABILITY
SAFETY MEMBERS - MALE					
20	0.0004	0.000	0.050	0.0004	0.000
25	0.0004	0.000	0.050	0.0004	0.001
30	0.0005	0.000	0.050	0.0005	0.001
35	0.0006	0.000	0.050	0.0006	0.002
40	0.0007	0.000	0.050	0.0007	0.004
45	0.0008	0.000	0.050	0.0008	0.008
50	0.0010	0.001	0.175	0.0010	0.014
55	0.0015	0.001	0.175	0.0015	0.014
SAFETY MEMBERS - FEMALE					
20	0.0002	0.000	0.050	0.0002	0.000
25	0.0002	0.000	0.050	0.0002	0.001
30	0.0003	0.000	0.050	0.0003	0.001
35	0.0004	0.000	0.050	0.0004	0.002
40	0.0005	0.000	0.050	0.0005	0.004
45	0.0006	0.000	0.050	0.0006	0.009
50	0.0008	0.001	0.175	0.0008	0.014
55	0.0012	0.001	0.175	0.0012	0.014

[1] Lower rates assumed for members with less than 20 years of service.

Salary Increase, Termination, and Withdrawal Assumptions

YEARS OF SERVICE	SALARY INCREASE		WITHDRAWAL		TERMINATION	
	GENERAL	SAFETY	GENERAL	SAFETY	GENERAL[1]	SAFETY[2]
0	0.1124	0.1330	0.100	0.060	0.100	0.060
1	0.1021	0.1330	0.065	0.035	0.065	0.035
2	0.0712	0.0815	0.050	0.025	0.050	0.025
3	0.0712	0.0815	0.039	0.025	0.039	0.025
4	0.0506	0.0815	0.039	0.025	0.039	0.025
5	0.0506	0.0532	0.019	0.010	0.058	0.040
6	0.0506	0.0429	0.019	0.006	0.058	0.024
7	0.0506	0.0429	0.011	0.004	0.034	0.016
8	0.0429	0.0429	0.011	0.004	0.034	0.016
9	0.0429	0.0429	0.009	0.004	0.028	0.016
10	0.0403	0.0429	0.009	0.004	0.028	0.016
11	0.0403	0.0429	0.007	0.004	0.021	0.016
12	0.0403	0.0429	0.007	0.004	0.021	0.016
13	0.0403	0.0429	0.006	0.004	0.019	0.016
14	0.0403	0.0429	0.006	0.004	0.019	0.016
15	0.0352	0.0429	0.003	0.002	0.023	0.011
16	0.0352	0.0429	0.003	0.002	0.023	0.011
17	0.0352	0.0429	0.003	0.002	0.023	0.011
18	0.0352	0.0429	0.003	0.002	0.023	0.011
19	0.0352	0.0429	0.003	0.002	0.023	0.011
20	0.0352	0.0429	0.001	0.000	0.009	0.000
21	0.0352	0.0429	0.001	0.000	0.009	0.000
22	0.0352	0.0429	0.001	0.000	0.009	0.000
23	0.0352	0.0429	0.001	0.000	0.009	0.000
24	0.0352	0.0429	0.001	0.000	0.009	0.000
25	0.0352	0.0429	0.001	0.000	0.009	0.000
26	0.0352	0.0429	0.001	0.000	0.009	0.000
27	0.0352	0.0429	0.001	0.000	0.009	0.000
28	0.0352	0.0429	0.001	0.000	0.009	0.000
29	0.0352	0.0429	0.001	0.000	0.009	0.000
30+	0.0352	0.0429	0.000	0.000	0.000	0.000

[1] 75% of vested terminated General Members with less than five years of service, 25% of those with five to 14 years of service, and 40% of those with more than 15 years of service, are assumed to be reciprocal.

[2] 67% of vested terminated Safety Members with less than five years of service, and 50% of those with more than five years of service, are assumed to be reciprocal.

Actuarial Value of Assets and Reserves

The Actuarial Value of Assets represents a "smoothed" value developed by the actuary to reduce contribution volatility, which could develop due to short-term fluctuations in the Market Value of Assets. For this System, the Actuarial Value of Assets is calculated by recognizing the deviation of actual investment returns compared to the expected return over a five-year period.

The dollar amount of the expected return on the Market Value of Assets is determined using the actual contributions, administrative expense, and benefit payments during the year. Any difference between this amount and the actual investment earnings is considered a gain or loss. However, in no event will the Actuarial Value of Assets be less than 80% or more than 120% of market value on the valuation date. The following table shows the development of the actuarial asset value.

DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS AS OF JANUARY 1, 2022

YEAR	(A) CONTRIBUTIONS	(B) BENEFITS	(C) ADMIN. EXPENSE	(D) HEALTHCARE FUND TRANSFER	(E) EXPECTED RETURN	(F) ACTUAL RETURN	(G)=(F)−(E) ADDITIONAL EARNINGS	(H) NOT RECOGNIZED	(I)=(G)X(H) UNRECOGNIZED EARNINGS
2018	$ 244,135,523	$ 221,443,667	$ 4,865,082	$ 324,269	$ 209,406,849	$(56,397,598)	$(265,804,447)	20%	$ (53,160,889)
2019	263,627,444	236,350,072	4,931,163	299,014	206,793,106	380,674,528	173,881,422	40%	69,552,569
2020	281,269,983	251,551,677	4,536,455	172,041	227,983,829	276,996,530	49,012,701	60%	29,407,621
2021	350,118,275	265,965,599	4,639,439	270,570	251,024,692	572,291,948	321,267,256	80%	257,013,805

(1)	Total Unrecognized Dollars		302,813,106
(2)	Market Value of Assets as of December 31, 2021		4,198,788,004
(3)	Preliminary Actuarial Value of Assets as of December 31, 2021: [(2) – (1)]		3,895,974,898
(4)	Corridor Limits		
	a. 80% of Net Fair Value		3,359,030,403
	b. 120% of Net Fair Value		5,038,545,605
(5)	Actuarial Value of Assets after Corridor		3,895,974,898
(6)	Ratio of Actuarial Value to Market Value [(5) ÷ (2)]		92.79%
(7)	Market Stabilization Designation [(2) – (5)]		302,813,106
(8)	Special (Non Valuation) Reserves:		
	Class Action Settlement – Post 4/1/1982		75,271
	Contingency		43,633,169
	Total Special Reserves		43,708,440
(9)	ACTUARIAL VALUE OF ASSETS FOR THE FUNDING RATIO: [(5) – (8)]	$	3,852,266,458
(10)	ADDITIONAL COUNTY CONTRIBUTION RESERVES	$	184,202,449
(11)	ACTUARIAL VALUE OF ASSETS USED FOR CALCULATING THE EMPLOYER CONTRIBUTION RATES: [(9) – (10)]	$	3,668,064,009

MEMBERSHIP

Membership is mandatory upon appointment to a full-time, permanent position with the County or other participating employer. Elected officials and persons who are age 60 or older at the time of employment in a position requiring membership in SJCERA may irrevocably elect to waive membership.

Tier 1 - Employees who established and maintain membership in SJCERA prior to January 1, 2013, and other eligible employees as defined by law, participate in the defined benefit formula that was in place before January 1, 2013, termed "SJCERA Tier I."

Tier 2 - Employees who establish membership in SJCERA on or after January 1, 2013, who are subject to the provisions of the Public Employees' Pension Reform Act of 2013 (Article 4 (commencing with Section 7522, et seq.) of Chapter 21 of Division 7 of Title 1 of the Government Code), also known as "PEPRA," participate in the defined benefit formula prescribed by PEPRA for these employees, termed "SJCERA Tier II."

FINAL AVERAGE SALARY

For Tier 1 members, final compensation for purposes of computing a retirement allowance is the average monthly salary for the highest twelve consecutive months of employment. In addition to base salary, final compensation may include other items defined as compensation earnable for retirement purposes. Overtime pay is excluded.

For Tier 2 members, final compensation for purposes of computing a retirement allowance is the average monthly salary for the highest thirty-six consecutive months of employment. In addition to base salary, final compensation may include other items defined as pensionable compensation. Allowances, incentives, employer contributions to deferred compensation, annual leave cash outs and overtime pay are excluded.

CONTRIBUTIONS

Member contributions are based upon membership category, General or Safety, are expressed as a percentage of covered payroll, and are deducted from employees' earnings on a biweekly basis. Collective bargaining agreements and employment resolutions may also specify terms that affect members' retirement contributions.

Tier 1 members pay contributions also based upon the age at which the employee entered SJCERA membership. Members of Tier 1 employed prior to March 7, 1973, and all Safety members of Tier 1 stop paying member contributions when they have 30 years of service credit, but continue to accrue retirement service credit for subsequent active employment subject to membership.

Tier 2 members pay contributions equal to one-half of the normal cost of their applicable benefits. General and Safety members pay different rates.

Summary of Major Plan Provisions

Member contributions are credited with interest semi-annually. Upon termination of employment prior to retirement, a member may elect to withdraw his or her accumulated member contributions and interest, terminating SJCERA membership and forfeiting all related rights and benefits.

DEFERRED VESTED BENEFIT

A member is eligible for Deferred Vested Benefit upon termination of employment after earning five years of retirement service credit, including reciprocity service from another system. The Member must leave accumulated member contributions with interest on deposit with SJCERA.

SERVICE RETIREMENT

TIER 1

For retirements effective January 1, 2001 and later, retirement benefits are as provided under Sections 31676.14 and 31664.1 of the County Employees' Retirement Law.

A Tier member may retire for service at age 50 or older with five years of service credit, and at least ten years has elapsed since the date of membership. A General Member may retire at any age with 30 or more years of service. A Safety Member may retire at any age with 20 or more years of service.

The benefit formula for General Tier I members is 2.6 percent of final compensation for each year of service credit at age 62. The formula for Safety Tier 1 members is 3.0 percent of final compensation for each year of service credit at age 50. Social Security integration reduces benefits by one-third on the first $350 of monthly final average salary. The maximum benefit payable is the lesser of 100 percent of final average salary or the federal annual compensation limit under Internal Revenue Code Section 401(a)(17), if applicable.

TIER 2

Tier 2 Members – Retirement benefits are as provided under Sections 7522.20 and 7522.25(d) of PEPRA.

A Tier 2 member may retire for service with five years of service credit upon attaining the minimum retirement age: Age 52 for General Members, and Age 50 for Safety Members.

The benefit formula for General Tier 2 members is up to 2.5 percent of final compensation for each year of service credit at age 67. The formula for Safety Tier 2 members is 2.7 percent of final compensation for each year of service credit at age 57. PEPRA specifies the maximum annual compensation that may be used to calculate retirement benefits. A lower limit applies to members whose service under SJCERA is also covered by Social Security, and a higher limit applies to members whose service under SJCERA is not covered by Social Security. These limits are adjusted annually based on changes in the Consumer Price Index.

Any member of SJCERA, regardless of benefit tier, may retire at age 70 with no minimum service credit requirement.

DISABILITY RETIREMENT

Members with five years of service credit, regardless of age, are eligible to apply for a non-service connected disability retirement. If granted, the benefit is the greater of:

1) 1.5 percent, for General Members, of final average salary at disability multiplied by years of Credited Service at disability. 1.8 percent for final average salary for Safety Members.
2) 1.5 percent, for General Members, 1.8 percent for Safety Members, of final average salary at disability multiplied by years of Credited Service projected to age 65 for General Members, and age 55 for Safety Members, not to exceed one-third of final average salary.
3) If the Member is eligible at disability for a Service Retirement Benefit, the Service Retirement Benefit accrued on the date of disability.

Any active member, regardless of years of service credit, is eligible to apply for a service-connected disability retirement. If granted, the benefit is the greater of:

1) 50 percent of the member's final average salary, or
2) If the member is eligible at disability for a Service Retirement Benefit – the Service Retirement Benefit accrued on the date of disability.

DEATH BENEFITS

Basic Death Benefit - The beneficiary of a member who dies prior to attaining five years of credited service receives a refund of the member's accumulated contributions and interest plus one month's salary for each full year of service, up to a maximum of six months' salary.

If the death occurs after the member attained five years of credited service and is not the result of a service-related injury or disease, the surviving spouse or minor children may elect to receive, in lieu of the Basic Death Benefit, either 60 percent of the retirement allowance to which the deceased member would have been entitled had the member retired for service or non-service-connected disability on the date of death, or a lump sum payment of six months' salary and a reduced monthly retirement benefit. The monthly allowance payable to a minor child is discontinued when the child marries or attains age 18, or age 22 if a full-time student.

Upon the death of a retiree, the beneficiary may receive a continuance of 100 percent, 60 percent, or 50 percent of the deceased member's retirement benefit as determined by the type of retirement and optional settlement elected by the member. The beneficiary also receives a $5,000 lump-sum death benefit.

COST-OF-LIVING BENEFITS

All monthly allowances are eligible for an annual cost-of-living adjustment (COLA) based on the change in the Consumer Price Index (CPI) for the San Francisco-Oakland-Hayward area for the previous calendar year, up to a maximum of 3.0 percent. When the CPI exceeds 3.0 percent in any year, the difference between the actual change in CPI (rounded to the nearest one-half percent) and the 3.0 percent ceiling is "accumulated" for future years when the change is less than 3.0 percent.

Statistical

Summary of Statistical Data

This section of the Annual Comprehensive Financial Report provides additional historical perspective, context, and detail in order to provide a more comprehensive understanding of this year's financial statements, note disclosures, and supplementary information.

This section provides supplementary information according to Governmental Accounting Standards Board (GASB) Statement No. 44, which establishes and modifies required data by providing multi-year trend information to provide an understanding of how the organization's financial activities and positions have changed over time. The Statistical Information is presented to include two main categories required by pension plans: Financial Trends Information and Operating Information.

FINANCIAL TRENDS

Ten-year trend information is presented to assist readers in understanding how the Plan's financial position has changed over time and provides historical information as to total plan net position and total changes in plan net position, the Plan's additions by source, deductions by type, benefits and refunds by type (service retirement, disability retirement, survivors/beneficiaries benefits, refunds and death benefits).

OPERATING INFORMATION

Operating Information is intended to provide information about operations and resources to assist readers in using financial statement information to understand and assess a government's economic condition. The following schedules present the average monthly benefit, and average final salary, organized in five-year increments of credit service and since retirement, as well as the participating employers and their corresponding covered employees.

Schedule of Fiduciary Net Position

FOR THE LAST TEN FISCAL YEARS ENDED DECEMBER 31

	(DOLLARS IN THOUSANDS)									
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
ASSETS										
Cash and Cash Equivalents	$ 266,916	$ 408,412	3,441,304	$ 118,801	$ 210,876	$ 185,216	$ 225,343	$ 226,912	$ 250,500	$ 169,701
Receivables	18,169	61,320	14,581	17,193	13,747	8,862	10,524	8,930	12,081	28,491
Investments	3,660,702	3,893,690	3,389,474	3,158,399	2,701,519	2,773,701	2,463,816	2,328,265	2,371,380	2,256,909
Prepaid Expenses	113	100	141	82	85	90	127	112	86	82
Equipment and Fixtures, Net	3,143	154	136	180	212	74	116	192	315	427
TOTAL ASSETS	$3,949,042	$4,363,676	$3,634,377	$3,294,655	$2,926,439	$2,967,943	$2,699,926	$2,564,411	$2,634,362	$2,455,610
LIABILITIES										
Securities Lending – Cash Collateral	$ 2,354	$ 78,776	$ 83,589	$ 46,038	$ 81,063	$ 86,901	$ 141,349	$ 147,106	$ 164,195	$ 107,126
Securities Purchased, Not Paid	125,565	84,977	2,987	3,402	2,418	173	2,542	2,739	1,671	5,433
Accrued Expenses and Other Payables	2,910	1,127	1,076	762	1,723	1,475	1,170	1,306	2,138	1,538
Securities Lending Interest and Other Expense	461	8	13	91	193	105	63	17	8	-
TOTAL LIABILITIES	$ 131,290	$ 164,888	$ 87,665	$ 50,293	$ 85,397	$ 88,654	$ 145,124	$ 151,168	$ 168,012	$ 114,097
FIDUCIARY NET POSITION RESTRICTED FOR PENSION BENEFITS	$3,817,752	$4,198,788	$3,546,712	$3,244,362	$2,841,042	$2,879,289	$2,554,802	$2,413,243	$2,466,350	$2,341,513

Schedule of Changes in Fiduciary Net Position

FOR THE LAST TEN FISCAL YEARS ENDED DECEMBER 31

	(DOLLARS IN THOUSANDS)									
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
ADDITIONS										
Member Contributions	$ 47,405	$ 43,456	$ 40,569	$ 38,099	$ 35,378	$ 33,635	$ 30,117	$ 29,027	$ 27,368	$ 22,690
Employer Contributions	269,080	306,662	240,701	225,529	208,758	200,052	159,123	150,372	136,686	119,494
Investment Income	(412,841)	571,306	276,853	380,600	(56,466)	299,882	151,031	(47,449)	110,651	198,173
Miscellaneous	82	986	143	74	68	78	84	109	77	72
Transfers Between Plans	225	271	172	299	324	365	294	379	19,969	204
TOTAL ADDITIONS	$ (96,050)	$ 922,681	$ 558,438	$ 644,601	$ 188,062	$ 534,012	$ 340,649	$ 132,438	$ 294,751	$ 340,633
DEDUCTIONS										
Benefits	$ 273,184	$ 261,980	$ 248,063	$ 233,405	$ 219,079	$ 203,109	$ 192,732	$ 179,585	$ 164,335	$ 154,233
Refunds	6,179	3,985	3,985	3,489	2,945	2,365	2,298	1,987	1,884	1,536
Administrative Expenses	5,622	4,640	4,640	4,536	4,931	4,865	4,119	4,370	4,076	4,043
TOTAL DEDUCTIONS	$ 284,985	$ 270,605	$ 270,605	$ 256,088	$ 241,281	$ 226,309	$ 209,526	$ 199,089	$ 185,545	$ 169,914
CHANGE IN FIDUCIARY NET POSITION	$ (381,035)	$ 652,076	$ 652,076	$ 302,350	$ 403,320	$ (38,247)	$ 324,486	$ 141,560	$ (53,107)	$ 124,837

Schedules of Revenues by Source and Expenses by Type

SCHEDULE OF REVENUES BY SOURCE

YEAR ENDED	MEMBER CONTRIBUTIONS	EMPLOYER CONTRIBUTIONS	INVESTMENT INCOME	MISCELLANEOUS	TRANSFER BETWEEN PLANS	TOTAL
2022	$ 47,405,308	$ 269,080,047	$ (412,841,266)	$ 81,540	$ 224,628	$ (96,049,743)
2021	43,455,640	306,662,635	571,305,566	986,382	270,570	922,680,793
2020	40,568,995	240,700,988	276,853,178	143,352	172,041	558,438,554
2019	38,098,688	225,528,756	380,600,341	74,187	299,014	644,600,986
2018	35,377,951	208,757,572	(56,465,738)	68,140	324,269	188,062,194
2017	33,634,906	200,051,742	299,882,451	78,242	364,714	534,012,055
2016	30,117,408	159,122,523	151,031,174	83,614	293,779	340,648,498
2015	29,026,901	150,371,556	(47,449,240)	109,490	378,969	132,437,676
2014	27,367,908	136,686,133	110,651,111	77,192	19,968,779	294,751,123
2013	$ 22,689,882	$ 119,494,319	$ 198,172,396	$ 72,467	$ 204,375	$ 340,633,439

SCHEDULE OF EXPENSES BY TYPE

YEAR ENDED	BENEFITS	REFUNDS	ADMINISTRATIVE EXPENSES	TOTAL
2022	$ 273,184,446	$ 6,179,349	$ 5,621,704	$ 284,985,499
2021	261,980,166	3,985,433	4,639,439	270,605,038
2020	248,063,135	3,488,542	4,536,455	256,088,132
2019	233,405,209	2,944,863	4,931,163	241,281,235
2018	219,078,954	2,364,713	4,865,082	226,308,749
2017	203,109,466	2,297,504	4,118,578	209,525,548
2016	192,732,311	1,986,866	4,369,744	199,088,921
2015	179,585,136	1,883,777	4,075,745	185,544,658
2014	164,335,273	1,535,698	4,042,986	169,913,957
2013	$ 154,232,885	$ 1,168,934	$ 4,134,716	$ 159,536,535

Schedule of Benefit and Refund Expenses by Type

YEAR END	PLAN TYPE	SERVICE RETIREMENT PAYROLL	DISABILITY RETIREMENT PAYROLL	SURVIVORS AND BENEFICIARIES	REFUNDS OF MEMBERS CONTRIBUTIONS	DEATH BENEFITS	TOTAL
	General	$ 173,221,213	$ 10,233,815	$ 14,231,986	$ 5,918,057	$ 697,572	$ 205,302,643
	Safety	53,070,783	12,945,381	7,721,196	261,292	62,500	74,061,152
2022	TOTAL	$ 227,291,996	$ 23,179,196	$ 21,953,182	$ 6,179,349	$ 760,072	$ 279,363,795
	General	$ 166,538,591	$ 9,970,090	$ 13,610,293	$ 3,346,955	$ 523,168	$ 193,989,097
	Safety	51,442,541	12,692,566	7,117,689	638,478	85,228	71,976,502
2021	TOTAL	$ 217,981,132	$ 22,662,656	$ 20,727,982	$ 3,985,433	$ 608,396	$ 265,965,599
	General	$ 156,370,175	$ 10,131,890	$ 12,767,095	$ 3,097,776	$ 723,834	$ 183,090,770
	Safety	49,041,768	12,478,296	6,465,761	390,766	84,316	68,460,907
2020	TOTAL	$ 205,411,943	$ 22,610,186	$ 19,232,856	$ 3,488,542	$ 808,150	$ 251,551,677
	General	$ 146,798,807	$ 9,654,798	$ 11,818,934	$ 2,756,097	$ 583,768	$ 171,612,404
	Safety	46,270,186	12,185,339	6,008,377	188,766	85,000	64,737,668
2019	TOTAL	$ 193,068,993	$ 21,840,137	$ 17,827,311	$ 2,944,863	$ 668,768	$ 236,350,072
	General	$ 137,812,569	$ 9,134,223	$ 11,265,536	$ 1,975,078	$ 565,401	$ 160,752,807
	Safety	42,762,050	11,814,374	5,667,301	389,635	57,500	60,690,860
2018	TOTAL	$ 180,574,619	$ 20,948,597	$ 16,932,837	$ 2,364,713	$ 622,901	$ 221,443,667
	General	$ 126,046,097	$ 8,807,111	$ 10,729,415	$ 2,108,790	$ 656,206	$ 148,347,619
	Safety	40,336,132	11,088,325	5,401,180	188,714	45,000	57,059,351
2017	TOTAL	$ 166,382,229	$ 19,895,436	$ 16,130,595	$ 2,297,504	$ 701,206	$ 205,406,970
	General	$ 118,912,565	$ 8,650,277	$ 10,544,504	$ 1,840,117	$ 563,769	$ 140,511,232
	Safety	38,262,562	10,660,155	5,083,479	146,749	55,000	54,207,945
2016	TOTAL	$ 157,175,127	$ 19,310,432	$ 15,627,983	$ 1,986,866	$ 618,769	$ 194,719,177
	General	$ 110,694,430	$ 8,608,271	$ 9,864,262	$ 1,584,403	$ 449,742	$ 131,201,108
	Safety	35,096,063	10,179,970	4,580,169	299,374	112,229	50,267,805
2015	TOTAL	$ 145,790,493	$ 18,788,241	$ 14,444,431	$ 1,883,777	$ 561,971	$ 181,468,913
	General	$ 100,668,155	$ 8,493,931	$ 9,401,576	$ 1,427,885	$ 548,606	$ 120,540,152
	Safety	31,407,516	9,555,857	4,184,681	107,813	74,951	45,330,819
2014	TOTAL	$ 132,075,671	$ 18,049,788	$ 13,586,257	$ 1,535,698	$ 623,557	$ 165,870,971
	General	$ 95,109,549	$ 5,667,332	$ 8,876,109	$ 900,756	$ 572,733	$ 111,126,479
	Safety	31,116,346	8,938,667	3,912,149	268,178	40,000	44,275,339
2013	TOTAL	$ 126,225,895	$ 14,605,999	$ 12,788,257	$ 1,168,934	$ 612,733	$ 155,401,818

Schedule of Retired Members by Type

ACTUARIAL VALUATION DATE	PLAN TYPE	MEMBERS WITH SERVICE RETIREMENTS	MEMBERS WITH DISABILITY RETIREMENTS	SURVIVORS AND BENEFICIARIES	TOTAL
01/01/2022	General	4,289	411	695	5,395
	Safety	695	223	229	1,147
	TOTAL	4,984	634	924	6,542
01/01/2021	General	4,171	415	664	5,250
	Safety	674	225	212	1,111
	TOTAL	4,845	640	876	6,361
01/01/2020	General	4,056	416	653	5,125
	Safety	647	229	207	1,083
	TOTAL	4,703	645	860	6,208
01/01/2019	General	3,969	406	635	5,010
	Safety	619	227	197	1,043
	TOTAL	4,588	633	832	6,053
01/01/2018	General	3,789	402	615	4,806
	Safety	600	221	195	1,016
	TOTAL	4,389	623	810	5,822
01/01/2017	General	3,655	399	603	4,657
	Safety	572	215	184	971
	TOTAL	4,227	614	787	5,628
01/01/2016	General	3,506	390	598	4,494
	Safety	554	210	177	941
	TOTAL	4,060	600	775	5,435
01/01/2015	General	3,385	393	580	4,358
	Safety	524	205	162	891
	TOTAL	3,909	598	742	5,249
01/01/2014	General	3,227	388	557	4,172
	Safety	516	199	154	869
	TOTAL	3,743	587	711	5,041
01/01/2013	General	3,113	387	541	4,041
	Safety	514	195	147	856
	TOTAL	3,627	582	688	4,897

Figures are extracted from actuarial reports which include individuals receiving divorce settlement payments. The most current Actuarial Valuation was conducted as of January 1, 2022 for the period ending December 31, 2021. The information in subsequent years is currently not available.

Schedule of Average Monthly Benefit Payments by Number of Years of Credited Service

RETIREMENT EFFECTIVE DATE	NUMBER OF YEARS OF COUNTY SERVICE CREDIT 0-4	5-9	10-14	15-19	20-24	25-29	30 & OVER
2022							
Retirees							
GENERAL MEMBERS							
Average Benefits	$ 579	$ 1,098	$ 1,785	$ 3,180	$ 3,487	$ 4,682	$ 7,000
Average Final Compensation	$ 9,120	$ 6,728	$ 6,050	$ 7,767	$ 6,633	$ 6,717	$ 8,621
Count	21	54	24	29	42	26	35
SAFETY MEMBERS							
Average Benefits	$ 1,497	$ 2,207	$ 2,639	$ 4,947	$ 5,063	$ 7,564	$ 14,048
Average Final Compensation	$ 7,765	$ 6,699	$ 7,528	$ 9,283	$ 8,414	$ 9,105	$ 14,406
Count	3	3	6	5	9	5	3
Survivors / DROs							
GENERAL MEMBERS							
Average Benefits	$ 675	$ 879	$ 952	$ 1,764	$ 3,012	$ 1,389	$ 3,323
Average Final Compensation	$ 0	$ 4,684	$ 3,290	$ 4,536	$ 7,306	$ 2,896	$ 4,286
Count	1	13	5	6	5	2	6
SAFETY MEMBERS							
Average Benefits	$ 2,642	$ 2,099	$ 0	$ 408	$ 2,356	$ 0	$ 0
Average Final Compensation	$ 2,560	$ 8,335	$ 0	$ 700	$ 3,823	$ 0	$ 0
Count	1	1	0	1	1	0	0
2021							
Retirees							
GENERAL MEMBERS							
Average Benefits	$ 215	$ 1,150	$ 2,109	$ 2,548	$ 3,599	$ 4,735	$ 5,977
Average Final Compensation	$ 8,113	$ 6,542	$ 7,236	$ 6,571	$ 6,677	$ 7,645	$ 7,427
Count	21	30	37	38	43	28	45
SAFETY MEMBERS							
Average Benefits	$ 857	$ 2,288	$ 2,916	$ 3,799	$ 5,049	$ 6,749	$ 7,937
Average Final Compensation	$ 9,706	$ 11,850	$ 7,852	$ 6,954	$ 7,814	$ 9,398	$ 8,663
Count	5	6	2	9	20	4	1
Survivors / DROs							
GENERAL MEMBERS							
Average Benefits	$ 995	$ 505	$ 1,203	$ 1,561	$ 1,902	$ 3,872	$ 2,573
Average Final Compensation	$ 3,852	$ 3,789	$ 5,463	$ 4,495	$ 3,647	$ 6,175	$ 4,831
Count	7	8	6	9	6	9	6
SAFETY MEMBERS							
Average Benefits	$ 1,312	$ 1,366	$ 2,295	$ 3,103	$ 0	$ 5,702	$ 6,523
Average Final Compensation	$ 9,117	$ 5,396	$ 4,830	$ 4,585	$ 0	$ 7,451	$ 6,523
Count	3	1	3	3	0	5	8

Schedule of Average Monthly Benefit Payments by Number of Years of Credited Service

	NUMBER OF YEARS OF COUNTY SERVICE CREDIT						
RETIREMENT EFFECTIVE DATE	0-4	5-9	10-14	15-19	20-24	25-29	30 & OVER
2020							
Retirees							
GENERAL MEMBERS							
Average Benefits	$ 344	$ 1,373	$ 1,926	$ 3,086	$ 3,108	$ 4,527	$ 6,734
Average Final Compensation	$ 7,961	$ 9,038	$ 6,637	$ 6,948	$ 5,859	$ 6,790	$ 7,968
Count	21	32	36	34	33	26	50
SAFETY MEMBERS							
Average Benefits	$ 430	$ 1,750	$ 2,749	$ 3,265	$ 4,763	$ 7,209	$ 13,386
Average Final Compensation	$ 9,072	$ 6,259	$ 6,672	$ 6,689	$ 7,515	$ 9,083	$ 13,811
Count	3	2	4	4	12	11	3
Survivors / DROs							
GENERAL MEMBERS							
Average Benefits	$ 505	$ 735	$ 990	$ 1,096	$ 1,547	$ 1,904	$ 3,690
Average Final Compensation	$ 5,989	$ 6,865	$ 3,653	$ 3,254	$ 3,428	$ 3,781	$ 4,974
Count	4	4	8	5	5	6	8
SAFETY MEMBERS							
Average Benefits	$ 1,246	$ 0	$ 1,622	$ 4,494	$ 0	$ 5,142	$ 6,753
Average Final Compensation	$ 6,483	$ 0	$ 2,296	$ 9,747	$ 0	$ 5,684	$ 7,710
Count	2	0	2	2	0	1	2
2019							
Retirees							
GENERAL MEMBERS							
Average Benefits	$ 345	$ 1,131	$ 1,780	$ 3,030	$ 3,669	$ 4,796	$ 7,232
Average Final Compensation	$ 8,121	$ 7,276	$ 6,189	$ 6,988	$ 7,070	$ 7,062	$ 8,554
Count	20	35	40	36	29	30	37
SAFETY MEMBERS							
Average Benefits	$ 596	$ 2,060	$ 3,057	$ 3,965	$ 4,173	$ 9,630	$ 17,094
Average Final Compensation	$ 9,587	$ 6,917	$ 6,658	$ 7,484	$ 7,087	$ 11,287	$ 17,300
Count	6	5	5	6	11	10	5
Survivors / DROs							
GENERAL MEMBERS							
Average Benefits	$ 235	$ 927	$ 994	$ 1,599	$ 2,453	$ 2,930	$ 4,532
Average Final Compensation	$ 6,898	$ 5,691	$ 3,777	$ 5,652	$ 4,288	$ 4,213	$ 5,778
Count	6	8	12	7	8	6	10
SAFETY MEMBERS							
Average Benefits	$ 712	$ 1,280	$ 1,831	$ 0	$ 3,258	$ 4,435	$ 6,246
Average Final Compensation	$ 7,533	$ 7,809	$ 5,374	$ 0	$ 4,504	$ 4,987	$ 6,460
Count	2	2	3	0	3	2	1

Schedule of Average Monthly Benefit Payments by Number of Years of Credited Service

RETIREMENT EFFECTIVE DATE	NUMBER OF YEARS OF COUNTY SERVICE CREDIT 0-4	5-9	10-14	15-19	20-24	25-29	30 & OVER
2018							
Retirees							
GENERAL MEMBERS							
Average Benefits	$ 596	$ 1,166	$ 1,759	$ 2,671	$ 3,522	$ 5,202	$ 6,036
Average Final Compensation	$ 9,601	$ 6,704	$ 5,920	$ 6,603	$ 6,555	$ 7,633	$ 6,975
Count	21	45	47	55	25	33	39
SAFETY MEMBERS							
Average Benefits	$ 2,721	$ 2,622	$ 2,166	$ 3,313	$ 3,997	$ 7,453	$ 10,935
Average Final Compensation	$ 5,485	$ 8,987	$ 6,168	$ 6,135	$ 6,442	$ 9,615	$ 11,725
Count	1	3	5	5	8	7	4
Survivors / DROs							
GENERAL MEMBERS							
Average Benefits	$ 224	$ 659	$ 1,201	$ 1,204	$ 2,150	$ 2,590	$ 2,759
Average Final Compensation	$ 4,220	$ 3,482	$ 5,324	$ 4,292	$ 3,513	$ 3,538	$ 4,382
Count	3	5	10	10	1	5	9
SAFETY MEMBERS							
Average Benefits	$ 0	$ 1,724	$ 3,203	$ 0	$ 1,201	$ 0	$ 6,213
Average Final Compensation	$ 0	$ 6,376	$ 4,065	$ 0	$ 3,140	$ 0	$ 4,768
Count	0	3	1	0	1	0	3
2017							
Retirees							
GENERAL MEMBERS							
Average Benefits	$ 377	$ 1,420	$ 2,070	$ 2,325	$ 3,951	$ 4,678	$ 6,187
Average Final Compensation	$ 9,793	$ 6,878	$ 6,534	$ 5,719	$ 6,851	$ 6,763	$ 7,391
Count	23	36	42	48	22	31	33
SAFETY MEMBERS							
Average Benefits	$ 787	$ 1,223	$ 2,529	$ 3,318	$ 5,973	$ 7,370	$ 9,169
Average Final Compensation	$ 9,859	$ 5,688	$ 6,385	$ 6,311	$ 9,021	$ 9,265	$ 9,050
Count	5	4	7	8	6	8	1
Survivors / DROs							
GENERAL MEMBERS							
Average Benefits	$ 678	$ 1,055	$ 1,622	$ 1,126	$ 1,850	$ 1,779	$ 5,139
Average Final Compensation	$ 5,110	$ 4,344	$ 4,225	$ 3,696	$ 4,288	$ 1,841	$ 6,188
Count	12	9	10	6	5	2	3
SAFETY MEMBERS							
Average Benefits	$ 667	$ 2,413	$ 1,292	$ 0	$ 0	$ 3,922	$ 6,511
Average Final Compensation	$ 5,605	$ 6,311	$ 3,454	$ 0	$ 0	$ 4,565	$ 2,765
Count	2	3	2	0	0	2	2

Schedule of Average Monthly Benefit Payments by Number of Years of Credited Service

	NUMBER OF YEARS OF COUNTY SERVICE CREDIT						
RETIREMENT EFFECTIVE DATE	0-4	5-9	10-14	15-19	20-24	25-29	30 & OVER
2016							
Retirees							
GENERAL MEMBERS							
Average Benefits	$ 310	$ 1,410	$ 1,816	$ 2,607	$ 3,457	$ 4,047	$ 5,986
Average Final Compensation	$ 6,616	$ 6,159	$ 6,368	$ 6,088	$ 6,269	$ 5,888	$ 7,069
Count	21	27	52	50	22	31	41
SAFETY MEMBERS							
Average Benefits	$ 3,817	$ 1,759	$ 2,546	$ 6,290	$ 5,510	$ 10,275	$ 10,494
Average Final Compensation	$ 7,634	$ 5,986	$ 6,353	$ 11,453	$ 8,566	$ 12,432	$ 11,081
Count	1	6	6	3	7	14	2
Survivors / DROs							
GENERAL MEMBERS							
Average Benefits	$ 313	$ 858	$ 1,065	$ 1,877	$ 2,207	$ 1,763	$ 2,769
Average Final Compensation	$ 5,727	$ 4,674	$ 4,527	$ 3,984	$ 7,223	$ 4,176	$ 3,314
Count	5	7	11	7	2	4	1
SAFETY MEMBERS							
Average Benefits	$ 495	$ 2,235	$ 1,253	$ 1,661	$ 4,086	$ 5,943	$ 4,712
Average Final Compensation	$ 7,339	$ 9,643	$ 3,843	$ 2,755	$ 5,646	$ 8,004	$ 4,804
Count	2	4	1	1	1	1	2
2015							
Retirees							
GENERAL MEMBERS							
Average Benefits	$ 319	$ 969	$ 1,877	$ 2,334	$ 3,290	$ 4,418	$ 5,705
Average Final Compensation	$ 5,983	$ 5,857	$ 6,166	$ 5,409	$ 5,854	$ 6,614	$ 6,691
Count	14	26	40	43	26	27	38
SAFETY MEMBERS							
Average Benefits	$ 585	$ 2,212	$ 3,041	$ 3,959	$ 6,341	$ 8,438	$ 10,290
Average Final Compensation	$ 7,403	$ 6,103	$ 6,469	$ 6,943	$ 8,580	$ 9,869	$ 11,511
Count	2	3	6	3	11	23	2
Survivors / DROs							
GENERAL MEMBERS							
Average Benefits	$ 576	$ 989	$ 1,002	$ 1,803	$ 3,042	$ 2,827	$ 5,276
Average Final Compensation	$ 3,420	$ 6,179	$ 3,344	$ 4,974	$ 7,108	$ 6,234	$ 5,851
Count	6	10	11	3	5	2	5
SAFETY MEMBERS							
Average Benefits	$ 530	$ 2,019	$ 2,184	$ 1,970	$ 2,767	$ 5,547	$ 5,026
Average Final Compensation	$ 6,053	$ 11,396	$ 9,909	$ 3,888	$ 3,983	$ 8,256	$ 5,406
Count	2	1	2	1	3	3	3

Schedule of Average Monthly Benefit Payments by Number of Years of Credited Service

RETIREMENT EFFECTIVE DATE	NUMBER OF YEARS OF COUNTY SERVICE CREDIT 0-4	5-9	10-14	15-19	20-24	25-29	30 & OVER
2014							
Retirees							
GENERAL MEMBERS							
Average Benefits	$ 461	$ 1,237	$ 1,775	$ 2,567	$ 4,363	$ 4,570	$ 6,392
Average Final Compensation	$ 8,494	$ 6,593	$ 5,772	$ 6,380	$ 7,652	$ 6,782	$ 7,760
Count	13	28	50	46	26	43	39
SAFETY MEMBERS							
Average Benefits	$ 1,715	$ 2,429	$ 3,207	$ 4,546	$ 3,993	$ 7,239	$ 11,302
Average Final Compensation	$ 7,439	$ 6,281	$ 6,826	$ 8,863	$ 6,031	$ 8,897	$ 11,762
Count	2	3	5	5	4	7	1
Survivors / DROs							
GENERAL MEMBERS							
Average Benefits	$ 478	$ 1,016	$ 1,007	$ 935	$ 2,002	$ 1,153	$ 2,941
Average Final Compensation	$ 5,752	$ 4,218	$ 2,698	$ 2,835	$ 4,914	$ 2,966	$ 8,069
Count	12	6	13	4	6	1	5
SAFETY MEMBERS							
Average Benefits	$ 2,030	$ 2,464	$ 2,890	$ 3,326	$ 3,002	$ 3,282	$ 0
Average Final Compensation	$ 9,251	$ 8,582	$ 5,516	$ 4,818	$ 2,992	$ 4,429	$ 0
Count	2	3	4	1	2	2	0
2013							
Retirees							
GENERAL MEMBERS							
Average Benefits	$ 433	$ 1,410	$ 1,589	$ 2,556	$ 3,149	$ 4,241	$ 5,837
Average Final Compensation	$ 7,695	$ 7,279	$ 5,787	$ 6,125	$ 6,132	$ 6,467	$ 6,718
Count	10	25	40	35	35	26	29
SAFETY MEMBERS							
Average Benefits	$ 1,165	$ 1,435	$ 2,621	$ 3,501	$ 4,260	$ 11,134	$ 9,279
Average Final Compensation	$ 9,478	$ 7,434	$ 6,316	$ 7,044	$ 5,599	$ 13,945	$ 9,670
Count	3	2	7	4	1	2	2
Survivors / DROs							
GENERAL MEMBERS							
Average Benefits	$ 687	$ 1,000	$ 883	$ 1,182	$ 2,063	$ 1,572	$ 2,985
Average Final Compensation	$ 3,804	$ 4,531	$ 3,953	$ 3,163	$ 3,722	$ 1,821	$ 3,681
Count	6	9	15	7	5	2	5
SAFETY MEMBERS							
Average Benefits	$ 650	$ 3,101	$ 1,385	$ 2,012	$ 1,918	$ 3,745	$ 4,936
Average Final Compensation	$ 4,955	$ 10,868	$ 2,506	$ 3,966	$ 2,525	$ 6,184	$ 5,381
Count	3	1	2	1	2	1	1

Schedule of Average Monthly Benefit Payments by Number of Years Since Retirement

GENERAL AND SAFETY MEMBERS

YEAR ENDED		NUMBER OF YEARS SINCE RETIREMENT						
		0-4	5-9	10-14	15-19	20-24	25-29	30 & OVER
2022	Average Benefit	$ 3,410	$ 3,728	$ 3,805	$ 3,530	$ 3,282	$ 2,584	$ 2,212
	Number of Retirees	1,695	1,497	1,303	940	687	326	237
2021	Average Benefit	$ 3,341	$ 3,788	$ 3,602	$ 3,401	$ 2,906	$ 2,506	$ 2,131
	Number of Retirees	1,710	1,505	1,231	934	606	320	223
2020	Average Benefit	$ 3,361	$ 3,682	$ 3,457	$ 3,433	$ 2,673	$ 2,410	$ 2,070
	Number of Retirees	1,693	1,482	1,178	923	563	307	206
2019	Average Benefit	$ 3,341	$ 3,456	$ 3,409	$ 3,205	$ 2,526	$ 2,263	$ 1,990
	Number of Retirees	1,710	1,508	1,106	870	520	281	213
2018	Average Benefit	$ 3,259	$ 3,283	$ 3,235	$ 3,050	$ 2,353	$ 2,314	$ 1,838
	Number of Retirees	1,694	1,441	1,101	873	466	271	207
2017	Average Benefit	$ 3,178	$ 3,236	$ 3,023	$ 2,874	$ 2,350	$ 2,084	$ 1,750
	Number of Retirees	1,605	1,434	1,067	831	452	245	188
2016	Average Benefit	$ 3,254	$ 3,057	$ 2,960	$ 2,532	$ 2,285	$ 2,022	$ 1,765
	Number of Retirees	1,606	1,351	1,073	742	428	234	194
2015	Average Benefit	$ 3,139	$ 2,918	$ 2,921	$ 2,333	$ 2,221	$ 1,995	$ 1,566
	Number of Retirees	1,587	1,291	1,046	692	412	212	194
2014	Average Benefit	$ 2,961	$ 2,873	$ 2,706	$ 2,223	$ 2,106	$ 1,899	$ 1,477
	Number of Retirees	1,609	1,224	987	642	404	209	174
2013	Average Benefit	$ 2,840	$ 2,755	$ 2,609	$ 2,049	$ 2,029	$ 1,881	$ 1,348
	Number of Retirees	1,520	1,211	990	577	372	208	163

Schedule of Average Monthly Benefit Payments by Number of Years Since Retirement

GENERAL MEMBERS

YEAR ENDED		NUMBER OF YEARS SINCE RETIREMENT 0-4	5-9	10-14	15-19	20-24	25-29	30 & OVER
	Average Benefit	$ 3,111	$ 3,377	$ 3,324	$ 3,084	$ 2,458	$ 2,306	$ 1,832
2022	Number of Retirees	1,436	1,252	1,078	774	511	275	190
	Average Benefit	$ 3,067	$ 3,349	$ 3,213	$ 2,827	$ 2,305	$ 2,256	$ 1,720
2021	Number of Retirees	1,444	1,256	1,019	756	467	269	178
	Average Benefit	$ 3,040	$ 3,294	$ 3,053	$ 2,731	$ 2,241	$ 2,198	$ 1,665
2020	Number of Retirees	1,433	1,256	962	714	451	257	169
	Average Benefit	$ 2,961	$ 3,135	$ 3,018	$ 2,498	$ 2,137	$ 2,083	$ 1,580
2019	Number of Retirees	1,432	1,274	922	666	423	234	175
	Average Benefit	$ 2,937	$ 2,967	$ 2,767	$ 2,402	$ 2,081	$ 2,103	$ 1,422
2018	Number of Retirees	1,434	1,222	903	667	392	227	165
	Average Benefit	$ 2,884	$ 2,836	$ 2,659	$ 2,201	$ 2,112	$ 1,872	$ 1,331
2017	Number of Retirees	1,357	1,195	887	628	384	204	151
	Average Benefit	$ 2,887	$ 2,721	$ 2,483	$ 2,005	$ 2,085	$ 1,778	$ 1,428
2016	Number of Retirees	1,358	1,125	878	576	360	201	159
	Average Benefit	$ 2,821	$ 2,577	$ 2,359	$ 1,942	$ 2,036	$ 1,763	$ 1,269
2015	Number of Retirees	1,353	1,066	821	560	345	188	160
	Average Benefit	$ 2,689	$ 2,566	$ 2,133	$ 1,847	$ 1,950	$ 1,628	$ 1,158
2014	Number of Retirees	1,371	1,030	767	524	342	180	144
	Average Benefit	$ 2,572	$ 2,370	$ 2,062	$ 1,787	$ 1,855	$ 1,623	$ 1,003
2013	Number of Retirees	1,297	1,000	762	485	319	177	132

Schedule of Average Monthly Benefit Payments by Number of Years Since Retirement

SAFETY MEMBERS

YEAR ENDED		NUMBER OF YEARS SINCE RETIREMENT 0-4	5-9	10-14	15-19	20-24	25-29	30 & OVER
2022	Average Benefit	$ 5,067	$ 5,523	$ 6,109	$ 5,611	$ 5,675	$ 4,085	$ 3,749
	Number of Retirees	259	245	225	166	176	51	47
2021	Average Benefit	$ 4,832	$ 6,001	$ 5,472	$ 5,843	$ 4,926	$ 3,826	$ 3,755
	Number of Retirees	266	249	212	178	139	51	45
2020	Average Benefit	$ 5,133	$ 5,840	$ 5,256	$ 5,832	$ 4,411	$ 3,500	$ 3,919
	Number of Retirees	260	226	216	209	112	50	37
2019	Average Benefit	$ 5,298	$ 5,200	$ 5,371	$ 5,514	$ 4,220	$ 3,162	$ 3,879
	Number of Retirees	278	234	184	204	97	47	38
2018	Average Benefit	$ 5,030	$ 5,047	$ 5,371	$ 5,148	$ 3,795	$ 3,406	$ 3,471
	Number of Retirees	260	219	198	206	74	44	42
2017	Average Benefit	$ 4,788	$ 5,234	$ 4,819	$ 4,956	$ 3,691	$ 3,140	$ 3,459
	Number of Retirees	248	239	180	203	68	41	37
2016	Average Benefit	$ 5,266	$ 4,730	$ 5,104	$ 4,364	$ 3,345	$ 3,506	$ 3,295
	Number of Retirees	248	226	195	166	68	33	35
2015	Average Benefit	$ 4,975	$ 4,531	$ 4,975	$ 3,990	$ 3,171	$ 3,814	$ 2,964
	Number of Retirees	234	225	225	132	67	24	34
2014	Average Benefit	$ 4,526	$ 4,505	$ 4,705	$ 3,896	$ 2,968	$ 3,582	$ 3,013
	Number of Retirees	238	194	220	118	62	29	30
2013	Average Benefit	$ 4,398	$ 4,581	$ 4,437	$ 3,431	$ 3,076	$ 3,354	$ 2,813
	Number of Retirees	223	211	228	92	53	31	31

Schedule of Participating Employers

FOR THE LAST TEN FISCAL YEARS ENDED DECEMBER 31

	2022		2021		2020		2019		2018		2017		2016		2015		2014		2013	
TIER	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
COUNTY OF SAN JOAQUIN																				
General Members	1,852	3,329	2,046	3,089	2,287	2,922	2,483	2,702	2,750	2,473	2,962	2,050	3,205	1,717	4,614	1,416	4,864	918	5,138	507
Safety Members	398	370	431	345	470	301	509	276	563	235	596	204	622	138	800	85	861	59	881	12
TOTAL	2,250	3,699	2,477	3,434	2,757	3,223	2,992	2,978	3,313	2,708	3,558	2,254	3,827	1,855	5,414	1,501	5,725	977	6,019	519
SUPERIOR COURT																				
General Members	139	152	150	146	164	130	177	135	184	114	194	105	202	101	255	66	263	38	269	20
Safety Members	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	139	152	150	146	164	130	177	135	184	114	194	105	202	101	255	66	263	38	269	20
LATHROP–MANTECA RURAL FIRE PROTECTION DISTRICT																				
General Members	0	5	0	3	0	3	1	3	1	3	1	2	1	2	1	1	1	1	1	0
Safety Members	19	21	18	24	21	23	21	23	21	19	25	7	25	8	41	8	42	7	43	3
TOTAL	19	26	18	27	21	26	22	26	22	22	26	9	26	10	42	9	43	8	44	3
WATERLOO–MORADA RURAL FIRE PROTECTION DISTRICT																				
General Members	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Safety Members	6	13	7	12	8	12	8	9	10	6	11	6	12	6	14	7	12	6	13	5
TOTAL	6	13	7	12	8	12	8	9	10	6	11	6	12	6	14	7	12	6	13	5
OTHER PARTICIPATING EMPLOYERS (GENERAL MEMBERS)																				
SJC Mosquito & Vector Control District	16	19	17	19	19	16	19	17	21	15	23	11	26	9	30	8	32	7	38	2
Mountain House Community Services District	4	26	4	22	5	22	4	24	4	23	6	17	6	13	10	11	9	9	13	5
Tracy Public Cemetery District	0	5	1	7	2	6	2	5	2	4	2	4	2	4	5	5	5	4	6	3
San Joaquin County Law Library	0	1	0	1	1	1	1	1	1	0	1	1	1	0	1	0	1	0	2	0
SJC Historical Society & Museum	1	4	1	4	1	3	1	3	1	3	1	0	2	0	2	0	2	0	2	0
Local Agency Formation Commission	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0
TOTALS	21	56	23	53	28	48	27	50	29	47	33	33	37	26	48	24	49	20	62	10
GRAND TOTAL	2,435	3,946	2,675	3,672	2,978	3,439	3,226	3,198	3,558	2,897	3,822	2,407	4,104	1,998	5,773	1,607	6,092	1,049	6,407	557

Acknowledgments

COMPILATION, EDITING AND REVIEW

Carmen Murillo, Eve Cavender, and Marissa Smith

DESIGN AND LAYOUT

Design Forge

SAN JOAQUIN
C E R A

San Joaquin County Employees' Retirement Association

6 South El Dorado Street, Suite 400
Stockton, CA 95202
(209) 468-2163
Fax (209) 468-0480
www.sjcera.org