ACERA ALAMEDA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

A Pension Trust Fund of the County of Alameda, Oakland, CA

# Annual Comprehensive Financial Report

## For the Year Ended December 31, 2023

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# Annual Comprehensive Financial Report

*for the Year Ended:* **DECEMBER 31, 2023**

*Issued By:*

David Nelsen CHIEF EXECUTIVE OFFICER

Erica Haywood FISCAL SERVICES OFFICER

Alameda County Employees' Retirement Association

475 14th Street, Suite 1000, Oakland, CA 94612

A Pension Trust Fund of the County of Alameda

(State of California)

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# Introduction

ALAMEDA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

475 14th Street, Suite 1000, Oakland, CA 94612 800/838-1932 510/628-3000 fax: 510/268-9574 www.acera.org

# Letter of Transmittal

Dear Board of Retirement Members:

I am pleased to submit this *Annual Comprehensive Financial Report of the Alameda County Employees' Retirement Association for the Year Ended December 31, 2023*.

This report presents the financial condition of the Pension Plan, the Other Postemployment Medical Benefits (OPEB), and Non-OPEB, as well as investment results for the year ended December 31, 2023.

It also includes information from the current actuarial valuations as of December 31, 2022. The information presented is accurate and reliable. It conforms to generally accepted accounting principles and is free of material misstatements.

## ACERA 2023 – Overview

### Mission

ACERA provides members and employers with flexible, cost-effective, participant-oriented benefits through prudent investment management and superior member services. Under the supervision and direction of the Board of Retirement (the Board), ACERA deploys competent, professional, impartial, and open procedures designed to treat all members fairly and with courtesy and respect. ACERA manages investments by balancing the need for financial security of its members with superior performance.

### ACERA and its Services

ACERA was established by the Alameda County Board of Supervisors in 1947, under the County Employees Retirement Law of 1937 (CERL or 1937 Act), to provide retirement allowances and other benefits for County employees. ACERA's membership is composed of the following participating employers:

- Alameda County
- Alameda Health System
- First 5 Alameda County
- Housing Authority of the County of Alameda
- Livermore Area Recreation and Park District
- The Superior Court of California for the County of Alameda

In accordance with the CERL and ACERA's investment policies, ACERA collects and invests employer and member contributions to fund member benefits (including lifetime retirement, disability, and death benefits), pay administration expenses, and offer non-vested benefit programs for select medical and supplemental COLA benefits (subject to annual Board approval under CERL Article 5.5).

### Investment Performance

After early anxieties about a recession, the US market rallied in 2023, with the S&P 500 gaining over 24%. This turnaround was fueled by easing inflation, a resilient economy, and the prospect of lower interest rates. Technology and financials were strong performers, while sectors like electric vehicles faced headwinds.

The total fund had a 12.7% gross rate of return, and the fund ranked in the 28th percentile of comparable pension funds for the year ended December 31, 2023. The fair value of ACERA's net position increased by $1.0 billion, to $11.3 billion. ACERA's annualized gross rate of return over the last five and ten year spans was 9.2% and 7.2%, ranking ACERA's fund in the 25th and 29th percentiles, respectively. ACERA's investment goal is to operate at a level of performance in the upper quartile of comparable pension funds on a risk adjusted basis.

### Financial Reporting

ACERA management is responsible for the accuracy, completeness, and fair presentation of the information in this report. Williams, Adley & Company-CA, LLP provides external audit services to determine whether the financial statements are presented in conformity with generally accepted accounting principles. The Management's Discussion and Analysis (MD&A) Section starting on page 13 provides a thorough analysis of ACERA's operations and financial status.

### Internal Controls

Management employs an annual risk assessment to design, implement, and maintain effective internal controls. Recognizing that even sound internal controls have inherent limitations, management is developing a risk profile by applying an Enterprise Risk Management (ERM) framework. The ERM framework will be applied in strategy-setting to identify potential events that may affect the organization to better assess risk potential and provide reasonable, rather than absolute, assurance that the financial statements are free of any material misstatements.

Common risk considerations include safeguarding pension assets, maintaining accurate and reliable accounting records, protecting member privacy, preventing fraud, and ensuring compliance with laws and regulations. The Board of Retirement oversees management's performance, and is ultimately responsible for confirming that management fulfills its duty in this regard. In addition, ACERA's Office of Internal Audit independently assesses whether the organization's risk management, control, and governance processes are adequate.

### Actuarial Funding Status

ACERA engages an independent firm to conduct an annual actuarial valuation. The pension plan's actuarial accrued liability increased from $10.93 billion in 2021 to $11.42 billion as of December 31, 2022.

The plan's valuation value of assets increased from $9.45 billion in 2021 to $9.92 billion as of December 31, 2022. The Unfunded Actuarial Accrued Liability (UAAL) increased from $1.48 billion in 2021 to $1.49 billion as of December 31, 2022, with the funded ratio increasing from 86.5% to 86.9%, respectively.

The Actuarial Section of this report starting on page 103 contains a more detailed discussion of the funding requirements.

### Supplemental Retiree Benefits Reserve

ACERA administers a Supplemental Retiree Benefits Reserve (SRBR) funded by regular earnings and a 50/50 share of gains above the assumed actuarial investment rate of 7.00%. As of December 31, 2022, the SRBR held $1.17 billion in actuarial value of assets, of which, $1.11 billion will fund the current benefit structure until the year 2050 for postemployment medical benefits and $54.90 million will fund the current non-OPEB benefit structure until the year 2038, even if no new earnings above the assumed investment rate of return are allocated to the SRBR.

### Membership

In 2023, ACERA's active membership increased from 11,290 to 11,495. The number of retired members and beneficiaries receiving pension benefits increased from 10,764 to 11,004. Deferred membership increased from 3,439 to 3,843. Total membership increased from 25,493 to 26,342.

## 2023 Accomplishments

### Organization-Wide Accomplishments

Utilizing considerable resources from all departments across the organization, ACERA continued its project to replace its pension administration system, Pension Gold Version 2, with Pension Gold Version 3 in 2024. ACERA:

- Completed work in the major workstreams benefit calculations, benefit setup, retiree payroll, and health premium reconciliation.
- Initiated development of staff training materials and V3 readiness plan with The Segal Group and ACERA subject matter experts.
- Developed case managers in OnBase using integration with PGV2-V3 data to track benefit estimate, service audits, and beneficiary designations.
- Leveraged the OnBase dashboard reporting tools to visualize activity in cross-departmental processes

## Administration Accomplishments

Administratively, ACERA:

- Completed a triennial experience study with Segal.
- Adopted BoardEffect board-management software to simplify storage and maintenance of Board agenda and packet materials, increase efficiency of Board and staff access to materials, and provide electronic annotation.
- Implemented the Expensify mobile app to ease electronic submission of Board expense reimbursements.
- Conducted an analysis of ACERA's Board election administration and retained MK Election Services LLC as ACERA's new Board Election Services vendor.
- Rebalanced the Supplemental Retiree Benefit Reserve (SRBR) to equalize sufficiency periods to pay Other Post Employment Benefit (OPEB) and non-OPEB Benefits.
- Conducted a study of ACERA's Workforce Excellence (WFE) processes and tools.
- Initiated a project to develop an ACERA intranet tool, and selected SharePoint as the software solution.
- Implemented the provisions of GASB Statement 96 which changed reporting of certain subscription-based information technology.
- Received an unmodified audit opinion from our external auditor, affirming ACERA's robust financial controls and procedures.

## Investments Accomplishments

In 2023, ACERA:

- Conducted a year-long comprehensive search and evaluation process to select a suitable general investment consultant and approved engagement of NEPC, LLC, as ACERA's General Investment Consultant.
- Adopted a new investment plan for ACERA's Real Estate Asset Class.
- Initiated an Emerging Markets Equity Manager Search.
- Expanded the Total Fund's investments in 8 privately placed funds worth $336 million, continuing to approach target allocations in the Private Equity, Real Assets, and Private Credit asset classes. Broken down by asset class, this represents:
  - 6 new commitments to Private Equity totaling $226 million.
  - 1 new commitment to Real Assets totaling $30 million.
  - 1 new commitment to Private Credit totaling $80 million.
- As of December 31, 2023, ACERA's total fund returned 12.6% (net) for 2023. The value of the total fund was $11.3 billion.

## Benefits Accomplishments

ACERA continued to enhance its customer service and benefits administration, though many staff members spent the bulk of their available development time on the pension administration system replacement. In the past year, ACERA:

- Enhanced the dental PPO for plan year 2024 by increasing the annual benefit maximum from $1,300 to $1,900 for both in-network and non-contracted providers.
- Extended its existing contract with Willis Towers Watson (Via Benefits) to provide individual medical plan coverage and services until December 31, 2024, and began new contract negotiations.
- Conducted an RFP for Benefits Consultant and selected incumbent firm Segal.
- Developed a New Member Onboarding and Communications Plan to enhance new employees' understanding of their benefits and optimized the onboarding process for new members.
- Conducted an email wellness campaign for retirees, distributing timed wellness messages provided by ACERA's insurance carriers.

- Adopted a Death Benefit Equity Policy, which established the ability for active members to make an Advance Death Benefit Election. This allows a member to potentially provide greater benefits for their beneficiaries if the member dies before retirement.
- Promoted the Kaiser Permanente Silver&Fit free-gym membership program to Medicare participants, and conducted a survey to report on program status.

## Certificate of Achievement

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to ACERA for its Annual Comprehensive Financial Report for the year ended December 31, 2022 (See page 6). This has been the 26th year ACERA has received this prestigious award.

## Acknowledgments

The compilation of this report reflects the combined efforts of ACERA's management and staff under the leadership of the Board of Retirement. This report and the corresponding Popular Annual Financial Report are available to members and the general public on ACERA's website at www.acera.org.

The dedication of ACERA staff forms the nucleus of our service mission, and I wish to express deep gratitude to them for the success of our operation.

Respectfully submitted,

David Nelsen
Chief Executive Officer
June 26, 2024

Government Finance Officers Association

# Certificate of Achievement for Excellence in Financial Reporting

Presented to

**Alameda County Employees' Retirement Association**
**California**

For its Annual Comprehensive
Financial Report
For the Fiscal Year Ended

December 31, 2022

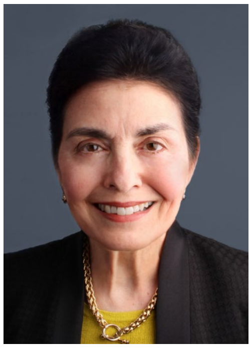
Christopher P. Morrill

Executive Director/CEO

*Also awarded each year from 1996 through 2010 and 2012 through 2022*

## Members of the Board of Retirement

As of January 1, 2024



**Ophelia B. Basgal**
Chair
*Appointed by the Board of Supervisors*

**Kellie Simon**
First Vice-Chair
*Elected by General Members*

**Tarrell V. Gamble**
Second Vice-Chair
*Appointed by the Board of Supervisors*

**Cynthia Baron**
*Alternate Elected by Retired Members*

**Kevin Bryant**
*Alternate Elected by Safety Members*

**Keith Carson**
*Appointed by and member of the Board of Supervisors*

**Ross Clippinger**
*Elected by Safety Members*

**Jaime Godfrey**
*Appointed by the Board of Supervisors*

**Henry C. Levy**
*Ex-Officio Member Treasurer-Tax Collector*

**Elizabeth Rogers**
*Elected by Retired Members*

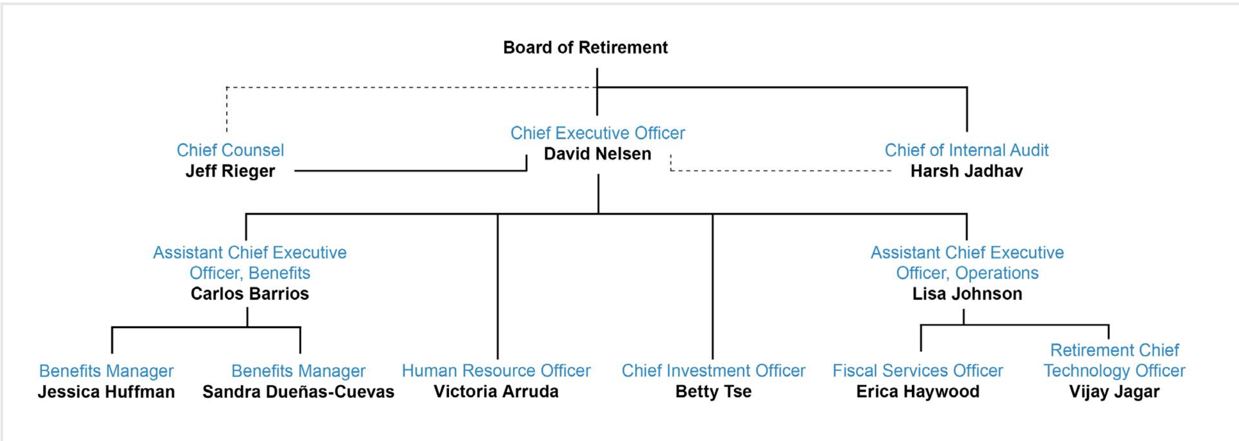
**George Wood**
*Elected by General Members*

### 2023 Board of Retirement

Jaime Godfrey **(Chair)**, Ophelia B. Basgal **(First Vice-Chair)**, Kellie Simon **(Second Vice-Chair)**, Keith Carson, Ross Clippinger, Tarrell V. Gamble, Henry C. Levy, Elizabeth Rogers, George Wood, Cynthia Baron **(Alternate Retiree)**, Kevin Bryant **(Alternate Safety)**

## Administrative Organizational Chart

As of December 31, 2023




## Professional Consultants[1]

### Actuary

*Segal*[2]

### Benefits

*Segal*[2]

### Fiscal Services

*Armanino LLP*

### Human Resources

*Lakeside Group*[3]

### Independent Auditors

*Williams, Adley & Company-CA, LLP*

### Information Technology

*Digital Deployment*
*Levi, Ray & Shoup Consulting*
*Segal*[2]
*Maverick Networks Inc.*
*Naviant*

### Legal

*Hanson Bridgett LLP*
*K&L Gates*
*Meyers Nave Professional Law Corporation*
*Nossaman, LLP*
*Reed Smith, LLP*

### Other Specialized Services

*American Arbitration Association*
*Manager Medical Review Org, Inc.*
*Willis Towers Watson*

1 The listing of Investment Professionals found page 98 provided services to the total fund which includes the pension plan and postemployment medical benefits. Also, the schedule of Brokerage Commissions and schedule of Investment Managers' Fees are reported on page 99 and page 100, respectively. Not all of the professional consultants listed above are required to file a Statement of Economic Interests (Form 700) under ACERA's Conflict of Interest Policy.

2 Segal provides actuarial consulting, benefit consulting and pension administration system project oversight services.

3 The Lakeside Group is a division of the Alameda County Human Resource Services Department.

# Financial

WILLIAMS ADLEY

## Independent Auditor's Report

Board of Retirement
Alameda County Employees' Retirement Association
Oakland, California

### Report on the Audit of the Financial Statements

#### *Opinion*

We have audited the accompanying financial statements of the Alameda County Employees' Retirement Association (ACERA), as of and for the year ended December 31, 2023, and the related notes to the financial statements, which collectively comprise ACERA's basic financial statements as listed in the table of contents.

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of ACERA as of December 31, 2023, and the change in its fiduciary net position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

#### *Basis for Opinion*

We conducted our audit in accordance with auditing standards generally accepted in the United States of America 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 ACERA and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### *Emphasis of Matters*

*Net Pension Liability of Employers*

As described in note 5, based on the most recent actuarial valuation as of December 31, 2023, ACERA's independent actuaries determined that, at December 31, 2023, the total pension liability exceeded the pension plan's fiduciary net position by $1.7 billion.

*Net OPEB Liability of Employers*

As described in note 7, based on the most recent actuarial valuation as of December 31, 2023, ACERA's independent actuaries determined that, at December 31, 2023, the total OPEB liability exceeded the OPEB plan's fiduciary net position by $208.5 million.

*Investment Valuation*

As described in Note 8, the financial statements include investments valued at $3,365,670,000 (which represents 29.8 percent of total fiduciary net position) at December 31, 2023, whose fair values have been estimated by management in the absence of readily determinable market values. Given that publicly listed prices are not available, management uses alternative sources of information, including audited financial statements, unaudited capital statements, independent appraisals, and other similar sources of information, to determine the fair value of investments.

Our opinion is not modified with respect to these matters.

#### *Responsibilities of Management for the Financial Statements*

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

**WILLIAMS, ADLEY & COMPANY-CA, LLP**
*Certified Public Accountants / Management Consultants*
7677 Oakport Street, Suite 1000 • Oakland, CA 94621 • (510) 893-8114 • Fax: (510) 893-2603
http://ca.williamsadley.com

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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 ACERA'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.

***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 generally accepted auditing standards 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 generally accepted auditing standards 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 ACERA'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 ACERA'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.

***Report on Summarized Comparative Information***

We have previously audited ACERA's 2022 financial statements, and our report dated June 23, 2023, 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, 2022, is consistent, in all material respects, with the audited financial statements from which it has been derived.

***Required Supplementary Information***

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, schedule of changes in the net pension liability and related ratios, schedule of employer contributions for the pension plan and non-OPEB, schedule of investment returns, schedule of changes in the net OPEB liability and related ratios, and the schedule of employer contributions for OPEB, as listed in the table of contents, be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's

WILLIAMS ADLEY

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 ACERA's basic financial statements. The schedules of administration expense, investment expenses, and payments to other consultants are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statement themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information 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 introduction, investment, actuarial, and statistical sections, but does not include the basic financial statements and our auditor's report thereon. Our opinion on the basic financial statements does 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.

### Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated June 26, 2024, on our consideration of ACERA's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts 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 ACERA'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 ACERA's internal control over financial reporting and compliance.

Williams, Adley & Company-CA, LLP

Oakland, California
June 26, 2024

# Management's Discussion and Analysis

Management's Discussion and Analysis (MD&A) presents the financial activities of the Alameda County Employees' Retirement Association (ACERA) for the year ended December 31, 2023. It provides an overview of the financial position and the combined results of operations for the pension plan and non-OPEB and Other Postemployment Benefits (OPEB). The narrative, in conjunction with the financial statements starting on page 21, presents ACERA's overall financial position, and the results of its operations. ACERA's funding is a combination of participating employer and member contributions and earnings on invested assets. The Chief Executive Officer's Letter of Transmittal starting on page 2 of this Annual Comprehensive Financial Report (ACFR) should be read along with the MD&A narrative.

*(Note: Amounts in this section are rounded and may not agree to other sections of this ACFR.)*

## Financial Highlights

As of December 31, 2023, ACERA's net position, which represents funds restricted for paying current and long-term pension benefit obligations and non-vested non-OPEB and OPEB for plan members and their beneficiaries, was $11.3 billion, a $1.0 billion increase compared to December 31, 2022. This increase was primarily attributable to the $1.0 billion increase in fair value of ACERA's investment portfolio during 2023.

As of December 31, 2023, the Net Pension Liability (NPL) was $1,742.7 million, compared to $2,231.3 million as of December 31, 2022. The $488.6 million decrease was primarily as a result of favorable investment return during calendar year 2023.

As of December 31, 2023, the Net OPEB Liability (NOL) was $208.5 million, compared to $191.3 million as of December 31, 2022. The $17.2 million increase was primarily the result of the $54.2 million transfer to the non-OPEB SRBR reserve offset by a favorable investment return during calendar year 2023. The investment result allocations to the Supplemental Retiree Benefits Reserve (SRBR), are credited by semiannual transfers to the reserve as defined by Article 5.5 of the County Employees' Retirement Law of 1937 (1937 Act).

As of December 31, 2022, the date of the pension plan actuarial funding and the SRBR sufficiency actuarial valuations used for the 2023 ACFR, the actuarial investment rate of return assumption used was 7.00%. The inflation rate assumption was 2.75% with assumed payroll growth increase of 3.25%.

As of December 31, 2022, ACERA had $0.8 billion in net deferred investment loss based on the actuarial value of assets. These deferred losses represent 7.7% of the fair value of assets, as of the December 31, 2022, actuarial valuation date. Unless offset by future investment gains or other favorable experience, the recognition of the $0.8 billion deferred market losses is expected to have an unfavorable impact on the Association's future funded percentage and contribution rate requirements.

## Overview of the Financial Statements

This discussion and analysis serves as an introduction to ACERA's Basic Financial Statements, which comprise the following five components:

- Statement of Fiduciary Net Position
- Statement of Changes in Fiduciary Net Position
- Notes to the Basic Financial Statements
- Required Supplementary Information (RSI) and Notes to RSI
- Supplemental Schedules

The basic financial statements report the components of the fiduciary net position held in trust for benefits, the components of the changes in the fiduciary net position (additions and deductions), along with explanatory notes to the basic financial statements.

ACERA's basic financial statements have two reporting columns. The first column reports the pension plan and non-OPEB, and the second column reports the postemployment medical benefits. ACERA's pension benefits and the non-OPEB are valued together for the purpose of determining and reporting the NPL. In addition to the basic financial statements, this report contains required supplementary information and supplemental schedules intended to assess the historical context of ACERA's progress in meeting benefit obligation through funding of contributions and investment income.

*The Statement of Fiduciary Net Position* on page 21 provides a snapshot of account balances at year's end. It includes the assets available for future benefit payments as well as liabilities outstanding at year's end.

ACERA did not have any transactions that met the criteria for deferred outflows of resources or deferred inflows of resources as defined in GASB Statement No. 63 and GASB Statement No. 65. As a result, those line items are not displayed on the 2023 Statement of Fiduciary Net Position.

*The Statement of Changes in Fiduciary Net Position* starting on page 22 provides a summary view of the additions to and deductions from the fiduciary net position that occurred over the course of the 2023 financial year.

The *Basic Financial Statements* include all assets and liabilities, using the accrual basis of accounting, in compliance with generally accepted accounting principles, similar to the accounting method used by most private-sector companies. All of the year's asset additions and deductions are taken into account regardless of when the corresponding cash is received or paid. All investment purchases and sales are reported as of the trade date. Investments are reported at current fair value and in accordance with GASB Statement No. 31. Both realized and unrealized investment gains and losses are recognized. Each depreciable component of capital assets is depreciated over its useful life.

*Notes to the Basic Financial Statements* starting on page 24 provide additional information essential for a complete understanding of the basic financial statements.

*Required Supplementary Information and Notes to Required Supplementary Information* starting on page 61 illustrate the GASB Statement No. 67 financial reporting requirements in the Schedule of Changes in Net Pension Liability and Related Ratios, Schedule of Employer Contributions, Schedule of Investment Returns, and Notes to Required Supplementary Information for the Pension Plan and Non-OPEB. Also reported are the requirements of GASB Statement No. 74 in the Schedules of Changes in Net OPEB Liability and Related Ratios and Schedule of Employer Contributions, along with the Notes to the Required Supplementary Information for Postemployment Medical Benefits.

*Supplemental Schedules* of administrative expenses, investment expenses and payments to other consultants are presented on page 68.

Tables 1 and 2 starting below, present condensed information about ACERA's financial position and results of operations for the current year in comparison to the preceding year, and form the basis for this financial discussion.

### Table 1: Fiduciary Net Position (Condensed)

As of December 31, 2023 and 2022 (Dollars in Millions)

| | 2023 | 2022 | Increase (Decrease) Amount | Percent Change |
|---|---|---|---|---|
| **ASSETS** | | | | |
| Current Assets | $ 237.3 | $ 191.8 | $ 45.5 | 24% |
| Investments at Fair Value | 11,233.5 | 10,279.1 | 954.4 | 9% |
| Capital Assets, net | 9.8 | 7.6 | 2.2 | 29% |
| **Total Assets** | **11,480.6** | **10,478.5** | **1,002.1** | **10%** |
| **LIABILITIES** | | | | |
| Current Liabilities | 201.6 | 180.0 | 21.6 | 12% |
| Long-term Lease and Subscription Liabilities | 0.2 | - | 0.2 | N/A |
| **Total Liabilities** | **201.8** | **180.0** | **21.8** | **12%** |
| **NET POSITION** | | | | |
| **Restricted - Held in Trust for Benefits** | **$11,278.8** | **$10,298.5** | **$ 980.3** | **10%** |

## Table 2: Changes In Fiduciary Net Position (Condensed)

For the Years Ended December 31, 2023 and 2022 (Dollars in Millions)

| | 2023 | 2022 | Increase (Decrease) Amount | Percent Change |
|---|---|---|---|---|
| **ADDITIONS** | | | | |
| Member Contributions | $ 126.5 | $ 120.7 | $ 5.8 | 5% |
| Employer Contributions | 288.6 | 281.6 | 7.0 | 2% |
| Net Investment Income (Loss) | 1,248.9 | (1,289.8) | 2,538.7 | 197% |
| Miscellaneous Income | 0.7 | 0.1 | 0.6 | 600% |
| Transfer to Employers' Advance Reserve from SRBR for Employer Contributions to 401(h) Account | 49.3 | 47.5 | 1.8 | 4% |
| Transfer to Employers' Advance Reserve from SRBR for Implicit Subsidy | 7.8 | 5.6 | 2.2 | 39% |
| Transfer from Employers' Advance Reserve to SRBR for OPEB Related Administrative Expenses | 1.7 | 1.7 | - | 0% |
| **Total Additions** | **1,723.5** | **(832.6)** | **2,556.1** | **307%** |
| **DEDUCTIONS** | | | | |
| Retirement Benefit Payments | 606.4 | 577.6 | 28.8 | 5% |
| Postemployment Medical Benefits | 47.1 | 46.7 | 0.4 | 1% |
| Member Refunds | 13.3 | 13.7 | (0.4) | -3% |
| Administration | 17.6 | 17.0 | 0.6 | 4% |
| Transfer from SRBR to Employers' Advance Reserve for Employer Contributions to 401(h) Account | 49.3 | 47.5 | 1.8 | 4% |
| Transfer from SRBR to Employers' Advance Reserve for Implicit Subsidy | 7.8 | 5.6 | 2.2 | 39% |
| Transfer to SRBR from Employers' Advance Reserve for OPEB Related Administrative Expenses | 1.7 | 1.7 | - | 0% |
| **Total Deductions** | **743.2** | **709.8** | **33.4** | **5%** |
| **CHANGE IN NET POSITION** | **980.3** | **(1,542.4)** | **2,522.7** | **164%** |
| **NET POSITION - JANUARY 1** | **10,298.5** | **11,840.9** | **(1,542.4)** | **-13%** |
| **NET POSITION - DECEMBER 31** | **$ 11,278.8** | **$ 10,298.5** | **$ 980.3** | **10%** |

## Analysis of Financial Position

Fiduciary net position held in trust for benefits equals assets less liabilities. Table 1, on page 15, displays the condensed information of the fiduciary net position, which as of December 31, 2023, totaled approximately $11.3 billion. This is a $1.0 billion or a 10% increase from the prior year, primarily a result of an increase in the fair value of ACERA's invested assets. The Investment Section, starting on page 69, provides further details about ACERA's investment performance.

### Current Assets

The components of current assets are detailed on the Statement of Fiduciary Net Position on page 21. Total current assets increased by $45.5 million from $191.8 million in 2022 to $237.3 million in 2023. This 24% increase was primarily due to increases in securities lending cash collateral of $25.1 million, unsettled investment trades of $6.2 million and future contracts of $8.9 million.

### Investments at Fair Value

ACERA's investments at fair value increased 9% from $10.3 billion in 2022 to $11.2 billion in 2023. The $0.9 billion increase was net of ACERA's $279.0 million cash draw in 2023 on the portfolio to pay retirement benefits and administrative costs.

### Capital Assets, Net

Capital assets include equipment, furniture, information systems, leasehold improvements, and right-to-use assets.

The value of capital assets increased from $7.6 million in 2022 to $9.8 million in 2023. The net increase of $2.2 million or 29% was mainly due to the increase in capital expenditures for the pension administration system upgrade.

### Total Assets

In all, total assets experienced a net increase of $1.0 billion, from $10.5 billion in 2022 to $11.5 billion in 2023. The increase in total investments at fair value accounted for almost all of the increase in total assets.

### Liabilities

The components of ACERA's current liabilities are detailed in the Statement of Fiduciary Net Position on page 21. Current liabilities increased by $21.6 million or 12% from $180.0 million in 2022 to $201.6 million in 2023. The net increase is mainly attributed to the $25.1 million increase in securities lending liability partially offset by the decreases in unsettled trades-investments purchased and future contracts.

As of December 31, 2023, the long-term lease and subscription liability totaled $0.2 million.

## Analysis of Results of Operations

The change in fiduciary net position equals total additions less total deductions. Table 2, on page 16, displays the condensed information about ACERA's 2023 financial activity. From January 1 to December 31, 2023, ACERA's fiduciary net position increased by $1.0 billion. The increase was mainly due to appreciation in the fair value of ACERA's invested assets.

### Additions to Fiduciary Net Position

The primary funding sources for ACERA's member benefits are member contributions, employer contributions, and net investment income. Additions to and deductions from fiduciary net position include transfers to and from the employers' advance reserve and the supplemental retiree benefits reserve.

Total additions to ACERA's fiduciary net position for the years ended December 31, 2023, and 2022, were $1.7 billion and $($0.8) billion, respectively. ACERA's net investment income (loss) for 2023 was $1.2 billion, compared to ($1.3) billion in investment income (loss) in 2022.

See the Net Investment Income (Loss) section on page 18 for a more comprehensive discussion of this increase.

The December 31, 2022, actuarial valuation report recommended contribution rate increases for members and employers. The Board of Retirement approved the increase to be in effect by September 2023. The aggregate member contribution rate increased from 10.03% to 10.08% of payroll. The rate increase was mainly due to changes in member demographics.

The aggregate employer contribution rate increased from 23.39% to 23.74% of payroll. This change was primarily due to (a) higher than expected cost-of-living adjustments for continuing retirees, (b) higher than expected salary increases for active members, and (c) lower than expected return on investments (after smoothing), offset somewhat by the effect of amortizing the prior year's UAAL over a larger than expected total projected payroll.

### *Member Contributions*

Total member contributions for 2023 were $126.5 million, up $5.8 million or 5% over 2022 total member contributions of $120.7 million. As previously stated, 2022 actuarial valuation contribution rates went into effect September 1, 2023.

### *Employer Contributions*

Total employer contributions collected for 2023 were $288.6 million, an increase of 2% or $7.0 million over the $281.6 million in total contributions collected in 2022. The $7.0 million increase was mainly due to the slight increase the average employer contribution rate.

### *Net Investment Income (Loss)*

Net investment income (loss) for 2023 was $1.2 billion. The $2.5 billion increase in net investment income over 2022 was primarily due to appreciation in the fair value of invested assets. The 2023 net appreciation of investments was $1.1 billion compared to a 2022 net depreciation of $1.4 billion.

### *Miscellaneous Income*

Miscellaneous income for 2023 totaled $0.7 million, up $0.6 million from 2022. This increase is mainly due to an increase of class action securities litigation settlements.

### *Transfers between Employers' Advance Reserve and SRBR*

Postemployment medical benefits are paid from employers' 401(h) accounts. Participating employers identify a portion of their contributions as 401(h) contributions. Employers funded $49.3 million and $47.5 million to their 401(h) accounts for years 2023 and 2022, respectively. See 401(h) Postemployment Medical Benefits Account on page 34.

In July 2011, ACERA applied the provisions of the 1937 Act (Section 31596.1) and allocated a portion of the 401(h) contributions towards administrative costs. As a result, $1.7 million was transferred from the employers' advance reserve to SRBR for both 2023 and 2022.

There was a $7.8 million transfer from the SRBR to the employers' advance reserve in 2023 to compensate Alameda County for the 2022 blended rate health care implicit subsidy. The implicit subsidy transfer increased by $2.2 million or 39% from the $5.6 million implicit subsidy transfer in 2022. This increase was primarily due to higher difference between the County's blended and unblended medical insurance rates for 2022 versus 2021. As of December 31, 2023, there was a one-time transfer of $54.2 million from the OPEB SRBR to the non-OPEB SRBR to equalize the sufficiency periods to pay OPEB and non-OPEB benefits.

## Deductions from Fiduciary Net Position

Total deductions are composed of four main categories, i.e., retirement benefits (including service retirement and disability payments, death benefits, non-OPEB burial benefits and supplemental COLA), postemployment medical benefits, member refunds, and administration expenses of the retirement system.

Total deductions from the fiduciary net position for 2023 were $743.2 million. This is $33.4 million or a 5% increase over the $709.8 million in total deductions for 2022. Service retirement and disability benefit payments alone increased 5% or $28.8 million over 2022. The member refunds decreased by $0.4 million or 3% for 2022.

### *Retirement Benefit Payments*

Retirement benefit payments in 2023 totaled $606.4 million, a $28.8 million or 5% increase over $577.6 million in 2022. The increase in benefit payments is primarily due to higher average benefits of retirees added to the retirement payroll compared to the lower average retirement allowance of those retirees removed from the retirement payroll.

### Postemployment Medical Benefits

Postemployment medical benefits paid from the 401(h) account in 2023 were $47.1 million, an increase of $0.4 million over the $46.7 million paid from the 401(h) account in 2022. This slight increase was due to increases in medical premiums. ACERA's maximum monthly medical benefit for 2023 was $616.12 per member. For retirees 65 years and older, enrolled in the Medicare Exchange individual plans, ACERA utilized Health Reimbursement Accounts (HRAs). Retirees 65 years and older, who were on the Medicare Exchange, received a maximum of $471.99 Monthly Medical Allowance (MMA).

### Member Refunds

Member refunds originate from either a member separation from service (termination) or an active member death. Member refunds decreased by $0.4 million or 3% from $13.7 million in 2022 to $13.3 million in 2023. The decrease was primarily due to decreases in termination refunds.

### Administration Expense

Total administration expense for 2023 increased to $17.6 million, from $17.0 million in 2022. Administration expenses cover the basic cost of operating the retirement system. Some expenses are subject to the statutory limit, as defined in the following paragraph, and others are excluded from the statutory limit.

In accordance with legal spending restrictions outlined in the County Employee Retirement Law of 1937 (1937 Act), ACERA's Board of Retirement adopts an operating expense and administrative budget, effective for the following year. The annual amount of administrative budget is subject to legal and budgetary restrictions.

Note 11 to the Basic Financial Statements, page 59, further describes the legal limitations. Consequently, the administrative budget for 2023 was kept in compliance with the "1937 Act" legal spending restrictions of 0.21% of the actuarial accrued liability of the retirement system.

Administrative expenses subject to the statutory limit increased by 2% or $0.3 million, from $14.3 million in 2022 to $14.6 million in 2023. The major categories of operating expenses subject to the statutory limit include personnel services, professional services, communications, and utilities, and other (i.e., depreciation, board of retirement operating expenses, insurance, miscellaneous, training, maintenance-equipment, and supplies).

Administrative expenses excluded from the statutory limit increased slightly from $2.7 million in 2022 to $2.9 million in 2023. The categories of operating expenses not subject to the statutory limit include legal, technology, actuarial, investment and business continuity expenses.

## Currently Known Facts and Events

**Litigation:** In the AHS v. ACERA lawsuit (filed February 7, 2019), the Alameda Health System, a participating employer in ACERA, filed suit against ACERA and the County of Alameda (later dismissed from the lawsuit by AHS), objecting to ACERA's use of the percent of payroll method for calculating AHS' unfunded liabilities to ACERA. The lawsuit seeks to require ACERA to collect less contributions from AHS and more contributions from the County (and possibly other participating employers). On May 3, 2022, the Superior Court issued a ruling granting ACERA summary judgment and then entered judgment for ACERA on May 24, 2022. AHS appealed that judgment. On March 27, 2024, the appellate court affirmed the trial court's judgment for ACERA. It is unknown whether AHS will seek review in the California Supreme Court.

**Business Continuity:** Following the eased health and safety restrictions of the response to the COVID-19 pandemic, ACERA's management maintained a hybrid work arrangement throughout 2021 and 2022, while most of the staff continued to work from home. In October 2022, the Governor of California announced that the COVID-19 state of emergency would end on February 28, 2023.

As a result, ACERA management formulated a new hybrid work arrangement that was implemented in 2023.

## Fiduciary Responsibilities

ACERA's Board of Retirement and management are fiduciaries of the retirement plan. Under the California Constitution and the 1937 Act, assets of the retirement plan can be used only for the exclusive benefit of the plan participants and their beneficiaries.

## Requests for information

This report is designed to provide the Board of Retirement, the membership, participating employers, taxpayers, investment managers, vendors, and other stakeholders or interested parties with a general overview of ACERA's financial condition, financial activities, and funding status. Questions regarding any of the information provided in this report or requests for additional information should be addressed to:

ACERA
Fiscal Services Department
475 14th Street, Suite 1000
Oakland, California 94612-1900

You can also contact us by e-mail at info@acera.org or by phone at (510) 628-3000 during normal business hours. Our website www.acera.org contains a wealth of information and is always accessible.

Respectfully submitted,

Erica Haywood
Fiscal Services Officer
May 9, 2024

# Basic Financial Statements

## Statement of Fiduciary Net Position

As of December 31, 2023, with Comparative Totals as of December 31, 2022 (Dollars in Thousands)

| | Pension Plan & Non-OPEB | Postemployment Medical Benefits | Total 2023 | Total 2022 |
|---|---|---|---|---|
| **ASSETS** | | | | |
| Cash | $ 5,607 | $ - | $ 5,607 | $ 6,915 |
| Securities Lending Cash Collateral | 158,812 | - | 158,812 | 133,699 |
| **Receivables** | | | | |
| Contributions | 26,273 | - | 26,273 | 23,162 |
| Investment Receivables | 24,365 | - | 24,365 | 21,208 |
| Unsettled Trades - Investments Sold | 9,404 | - | 9,404 | 3,240 |
| Futures Contracts | 8,931 | - | 8,931 | 40 |
| Foreign Exchange Contracts | 2,714 | - | 2,714 | 2,477 |
| Other Receivables | 408 | - | 408 | 227 |
| **Total Receivables** | **72,095** | **-** | **72,095** | **50,354** |
| Prepaid Expenses | 834 | - | 834 | 805 |
| **Total Current Assets** | **237,348** | **-** | **237,348** | **191,773** |
| **Investments at Fair Value** | | | | |
| Short-Term Investments | 196,147 | - | 196,147 | 220,268 |
| Domestic Equity | 626,628 | - | 626,628 | 512,795 |
| Domestic Equity Commingled Funds | 2,239,207 | - | 2,239,207 | 2,013,410 |
| International Equity | 787,281 | - | 787,281 | 1,103,928 |
| International Equity Commingled Funds | 2,002,804 | - | 2,002,804 | 1,379,259 |
| Domestic Fixed Income | 1,419,300 | - | 1,419,300 | 1,327,238 |
| International Fixed Income | 95,474 | - | 95,474 | 84,556 |
| International Fixed Income Commingled Funds | 79,250 | - | 79,250 | 75,541 |
| Real Estate - Separate Properties | 48,282 | - | 48,282 | 55,578 |
| Real Estate - Commingled Funds | 756,421 | - | 756,421 | 780,660 |
| Real Assets | 657,542 | - | 657,542 | 620,459 |
| Absolute Return | 902,059 | - | 902,059 | 851,556 |
| Private Equity | 1,114,713 | - | 1,114,713 | 993,108 |
| Private Credit | 308,413 | - | 308,413 | 260,764 |
| **Total Investments** | **11,233,521** | **-** | **11,233,521** | **10,279,120** |
| Non-OPEB Assets | 111,280 | - | 111,280 | 54,901 |
| Due from Pension Plan | (1,196,505) | 1,085,225 | (111,280) | (54,901) |
| Capital Assets at Cost (Net of Accumulated Depreciation and Amortization) | 9,752 | - | 9,752 | 7,584 |
| **Total Assets** | **10,395,396** | **1,085,225** | **11,480,621** | **10,478,477** |
| **LIABILITIES** | | | | |
| Securities Lending Liability | 158,812 | - | 158,812 | 133,699 |
| Unsettled Trades - Investments Purchased | 18,989 | - | 18,989 | 22,508 |
| Futures Contracts | 0 | - | 0 | 1,041 |
| Foreign Exchange Contracts | 10 | - | 10 | 0 |
| Investment-Related Payables | 13,923 | - | 13,923 | 12,107 |
| Accrued Administration Expenses | 3,084 | - | 3,084 | 2,933 |
| Members Benefits & Refunds Payable | 6,305 | - | 6,305 | 7,252 |
| Retirement Payroll Deductions Payable | 443 | - | 443 | 371 |
| Current Lease Liability | 65 | - | 65 | 51 |
| Long-term Lease and Subscription Liability | 169 | - | 169 | 3 |
| **Total Liabilities** | **201,800** | **-** | **201,800** | **179,965** |
| **NET POSITION - Held in Trust for Benefits** | **$ 10,193,596** | **$ 1,085,225** | **$ 11,278,821** | **$ 10,298,512** |

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

## Statement of Changes in Fiduciary Net Position

For the Year Ended December 31, 2023, with Comparative Totals for the Year Ended December 31, 2022 (Dollars in Thousands)

| | Pension Plan & Non-OPEB | Postemployment Medical Benefits | Total 2023 | Total 2022 |
|---|---|---|---|---|
| **ADDITIONS** | | | | |
| **Contributions** | | | | |
| Member | $ 126,472 | $ - | $ 126,472 | $ 120,673 |
| Employer | 239,301 | 49,339 | 288,640 | 281,647 |
| **Total Contributions** | **365,773** | **49,339** | **415,112** | **402,320** |
| **Investment Income** | | | | |
| **From Investment Activities:** | | | | |
| Net Appreciation (Depreciation) in Fair Value of Investments | 1,148,261 | - | 1,148,261 | (1,407,721) |
| Dividends, Interest, & Other Investment Income | 168,195 | - | 168,195 | 159,534 |
| **Total Income (Loss) from Investment Activities** | **1,316,456** | **-** | **1,316,456** | **(1,248,187)** |
| Total Investment Expenses | (68,333) | - | (68,333) | (42,148) |
| **Net Income (Loss) from Investment Activities** | **1,248,123** | **-** | **1,248,123** | **(1,290,335)** |
| **From Securities Lending Activities:** | | | | |
| **Securities Lending Income** | 8,701 | - | 8,701 | 3,070 |
| **Securities Lending Expenses** | | | | |
| Borrower Rebates | (7,843) | - | (7,843) | (2,294) |
| Management Fees | (172) | - | (172) | (155) |
| **Total Securities Lending Activity Expenses** | **(8,015)** | **-** | **(8,015)** | **(2,449)** |
| **Net Income from Securities Lending Activities** | **686** | **-** | **686** | **621** |
| Earnings Allocated to Non-OPEB | 3,536 | - | 3,536 | 4,164 |
| Earnings Allocated | (75,194) | 71,658 | (3,536) | (4,164) |
| **Total Net Investment Income (Loss)** | **1,177,151** | **71,658** | **1,248,809** | **(1,289,714)** |
| **Miscellaneous Income** | 715 | - | 715 | 117 |
| Transfer to SRBR Non-OPEB from SRBR OPEB | 54,206 | (54,206) | - | - |
| Transfer to Employers' Advance Reserve from SRBR for Employer Contributions to 401(h) Account | 49,339 | - | 49,339 | 47,477 |
| Transfer to Employers' Advance Reserve from SRBR for Implicit Subsidy | 7,842 | - | 7,842 | 5,594 |
| Transfer from Employers' Advance Reserve to SRBR for OPEB Related Administrative Expense | - | 1,711 | 1,711 | 1,657 |
| **Total Additions** | **$ 1,655,026** | **$ 68,502** | **$ 1,723,528** | **$ (832,549)** |

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

## Statement of Changes in Fiduciary Net Position (Continued)

For the Year Ended December 31, 2023, with Comparative Totals for the Year Ended December 31, 2022 (Dollars in Thousands)

| | Pension Plan & Non-OPEB | Postemployment Medical Benefits | Total 2023 | Total 2022 |
|---|---|---|---|---|
| **DEDUCTIONS** | | | | |
| **Benefits** | | | | |
| Service Retirement and Disability Benefits | $ 601,262 | $ - | $ 601,262 | $ 573,320 |
| Death Benefits | 3,761 | - | 3,761 | 3,120 |
| Burial Benefits - Non-OPEB | 228 | - | 228 | 241 |
| Supplemental Cost of Living Allowance - Non-OPEB | 1,135 | - | 1,135 | 943 |
| Post Employment Medical Benefits | - | 47,072 | 47,072 | 46,711 |
| **Total Benefit Payments** | **606,386** | **47,072** | **653,458** | **624,335** |
| **Member Refunds** | 13,293 | - | 13,293 | 13,713 |
| **Administration** | | | | |
| Administrative Expenses | 12,935 | 1,711 | 14,646 | 14,326 |
| Legal Expenses | 846 | - | 846 | 839 |
| Technology Expenses | 1,005 | - | 1,005 | 927 |
| Actuarial Expenses | 469 | - | 469 | 382 |
| Business Continuity Expenses | 610 | - | 610 | 552 |
| **Total Administration** | **15,865** | **1,711** | **17,576** | **17,026** |
| Transfer from SRBR to Employers' Advance Reserve for Employer Contributions to 401(h) Account | - | 49,339 | 49,339 | 47,477 |
| Transfer from SRBR to Employers' Advance Reserve for Implicit Subsidy | - | 7,842 | 7,842 | 5,594 |
| Transfer to SRBR from Employers' Advance Reserve for OPEB Related Administrative Expense | 1,711 | - | 1,711 | 1,657 |
| **Total Deductions** | **637,255** | **105,964** | **743,219** | **709,802** |
| **CHANGE IN NET POSITION** | **1,017,771** | **(37,462)** | **980,309** | **(1,542,351)** |
| **NET POSITION - JANUARY 1** | **9,175,825** | **1,122,687** | **10,298,512** | **11,840,863** |
| **NET POSITION - DECEMBER 31** | **$ 10,193,596** | **$ 1,085,225** | **$11,278,821** | **$ 10,298,512** |

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

# Notes to the Basic Financial Statements

*(an integral part of the Basic Financial Statements)*

## 1. Summary of Significant Accounting Policies

### Reporting Entity

ACERA is an independent, public employees' retirement system with its own governing board. ACERA's financial statements are included in the County of Alameda's financial statements as a pension and other employee benefit fiduciary trust fund.

### Basis of Accounting

ACERA follows generally accepted accounting principles in the United States and reporting guidelines set forth by the Governmental Accounting Standards Board (GASB).

ACERA's (fiduciary trust fund) financial statements are prepared on the accrual basis of accounting. Employer and employee contributions are recognized when due, pursuant to formal commitments, as well as statutory or contractual requirements. Security purchases and sales are recognized in the financial statements as of the trade date. Retirement benefits and member refunds are recognized as liabilities when due and payable in accordance with the terms of the plan. Other expenses are recognized when the corresponding liabilities are incurred.

### Investments

Investments are reported at fair value. Fair value for investments of publicly traded stocks and bonds and issues of the U.S. Government and its agencies is based on the last reported sale price as of the fiscal year-end. Fair value of securities denominated in a foreign currency reflects exchange rates in effect at fiscal year-end. The fair value of ACERA's short-term investments held in external investment pools managed by the master custodian and securities lending agent is provided by the pool manager and is reported at net asset per share value for the pool. Fair value of investments in commingled funds of debt securities, equity securities, and real estate is based on the fund share price provided by the fund manager, which is based on net asset value. Fair value of investments in real estate separate properties is based on prices in a competitive market as determined by the investment manager relying on periodic appraisals and is reported net of the outstanding balance of associated mortgages. The fair value of private equity, private credit, absolute return, and real assets is based on ACERA's pro rata share and determined by the fund's general partner based on a variety of valuation methods including current market multiples for comparable companies, recent sales of comparable companies, net present value of expected cash flows, appraisals and adjustments to prevailing public market prices based on control and/or liquidity, as appropriate. All funds are audited annually by the funds' independent auditors.

### Investment Income

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

### Securities Lending Activity

Securities lending transactions are short-term collateralized loans of ACERA's securities for the purpose of generating additional investment income. For each lending transaction, ACERA receives either cash collateral or non-cash collateral.

The underlying securities out on loan are reported on the Statement of Fiduciary Net Position as if the lending transaction had not occurred.

Cash collateral held (or any security that can be sold or pledged without a default by the borrower) is separately reported on the Statement of Fiduciary Net Position in current assets. A corresponding liability of an equal amount (the obligation to return the cash collateral) is reported as a liability.

Non-cash collateral held is not reported on the Statement of Fiduciary Net Position nor is there a corresponding liability reported on this statement.

### Derivative Instruments

ACERA's investments include the following types of investment derivative instruments: futures, forwards, spot contracts, swaps and warrants. ACERA enters into derivative instrument contracts for investment purposes and to manage risks associated with its investment portfolio.

The fair value of exchange traded derivative instruments such as futures, swaps, spot contracts, and warrants is based on quoted market prices. The fair value of non-exchange traded derivative instruments such as forward contracts and certain futures contracts is determined by an external pricing service using various proprietary methods.

The fair value of derivative instrument contracts is reported in investments as assets or liabilities on the Statement of Fiduciary Net Position.

### Collateral and Margin Account

For the equity index futures, there is an initial margin requirement to open a contract position as well as a collateral maintenance requirement that must be kept until the position is closed out.

ACERA reports the collateral for the equity index futures in short-term investments.

### Capital Assets

Capital assets are carried at cost, net of accumulated depreciation or amortization. ACERA's capitalization threshold is an initial cost of $5,000 and two years of useful life. Depreciation and amortization are calculated using the straight-line method over the estimated useful lives of the depreciable assets or over the term of the lease.

For each asset, ACERA recognizes one-half year of expense in the year the asset is placed in service and one-half year of expense in the year of retirement.

The estimated useful lives for the assets in each category are as follows:

| | Years |
|---|---|
| Leasehold Improvements | 27.5 |
| Information System - Retirement | 7.0 |
| Office Furniture | 7.0 |
| Business Continuity Assets | 5.0 |
| Computer Hardware | 5.0 |
| Offsite Office Equipment | 5.0 |
| Electronic Document Management System | 5.0 |
| Information System - Accounting | 3.0 |
| Computer Software | 3.0 |

## Estimates

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

## Income Taxes

ACERA operates as a Defined Benefit Pension Plan, qualified under section 401(a) of the Internal Revenue Code and is not subject to tax under current income tax laws. All assets accumulated for the payment of benefits may legally be used to pay benefits, including refunds of member contributions to any of the plan members or beneficiaries, as defined by the terms of the plan.

## New Accounting Pronouncements

ACERA implemented the provisions of GASB Statement No. 96, *Subscription-Based Information Technology Arrangements*, for the fiscal year ended December 31, 2023. The implementation of this Statement has changed ACERA's financial statements as follows: on the Statement of Fiduciary Net Position, newly recognized right-to-use subscription assets and right-to-use subscription liabilities are reported with capital assets and current and long-term liability, respectively; note disclosure in Note 9 includes details of the terms of the subscription-based software and a new line item in the capital assets table of right-to-use subscription-based software. Also, included amounts for software subscription expense with other lease expense amounts reported under GASB 87 in the Administrative Expense table of the Supplemental Schedules section.

GASB Statement No. 99, *Omnibus*, was issued in April 2022. The objective of this Statement is to address practice issues that have been identified during implementation and application of certain GASB Statements and accounting and financial reporting for financial guarantees. The practice issues addressed with this Statement that are applicable to ACERA are as follows: 1) clarification of provisions in Statement No. 87, *Leases*, as amended, related to the determination of the lease term, classification of a lease as a short-term lease, recognition and measurement of a lease liability and a lease asset, and identification of lease incentives, 2) clarification of provisions in Statement No. 96, *Subscription-Based Information Technology Arrangements*, related to the subscription-based information technology arrangement (SBITA) term, classification of a SBITA as a short-term SBITA, and recognition and measurement of a subscription liability, and 3) extension of the period during which the London Interbank Offered Rate (LIBOR) is considered an appropriate bench- mark interest rate for the qualitative evaluation of the effectiveness of an interest rate swap that hedges the interest rate risk of taxable debt. The requirements related to extension of the use of LIBOR, are effective upon issuance. The requirements related to leases and SBITAs are effective for fiscal years beginning after June 15, 2022, and all reporting periods there- after. The requirements related to the use of LIBOR was not applicable to ACERA. The clarifications for a lease as a short-term lease under GASB 87 and short-term SBITA under GASB 96 did not affect ACERA's current contracts for leases and SBITAs.

GASB Statement No. 100, *Accounting Changes and Error Corrections–an amendment of GASB Statement No. 62*, was issued in June 2022. The primary objective of this Statement is to enhance accounting and financial reporting requirements for accounting changes and error corrections to provide more understandable, reliable, relevant, consistent, and comparable information for making decisions or assessing accountability. This Statement requires that (a) changes in accounting principles and error corrections be reported retroactively by restating prior periods, (b) changes to or within the financial reporting entity be reported by adjusting beginning balances of the current period, and (c) changes in accounting estimates be reported prospectively by recognizing the change in the current period. The requirements of this Statement for changes in accounting principles apply to the implementation of a new pronouncement in absence of specific transition provisions in the new pronouncement. This Statement also requires that the aggregate amount of adjustments to and restatements of beginning net position, fund balance, or fund net position, as applicable, be displayed by reporting unit in the financial statements. This Statement also requires disclosure in notes to financial statements of descriptive information about accounting changes and error corrections, such as their nature and quantitative effects should be disclosed by reporting unit in a tabular format to reconcile beginning balances as previously reported to beginning balances as restated. The requirements of this Statement are effective with fiscal years beginning after June 15, 2023, and reporting periods thereafter. ACERA will implement the applicable provision of this Statement for the fiscal year ending December 31, 2024.

GASB Statement No. 101, *Compensated Absences*, was issued in June 2022. The objective of this Statement is to better meet the information needs of financial statement users by updating the recognition and measurements guidance for compensated absences. This Statement requires that liabilities for compensated absences be recognized for (1) leave that has not been used and (2) leave that has been used but not yet paid in cash or settled through noncash means. A liability should be recognized for leave that has not been used if (a) the leave is attributable to services already rendered, (b) the leave accumulates, and (c) the leave is more likely than not to be used for time off or otherwise paid in cash or settled through noncash means. This Statement also requires that a liability for certain types of compensated absences including parental leave, military leave, and jury duty leave not be recognized until the leave commences. The requirements of this Statement are effective with fiscal years beginning after December 15, 2023, and reporting periods thereafter. ACERA will implement the applicable provision of this Statement for the fiscal year ending December 31, 2024.

GASB Statement No. 102, *Certain Risk Disclosures*, was issued in December 2023. The objective of this Statement is to provide the financial statement users with essential information about risks related to a government's vulnerabilities due to certain concentrations or constraints. The Statement requires that a government should disclosure in notes to the financial statements the information related to risks associated with concentrations or constraints, if the risk meets all of the following criteria; (a) a concentration or constraint is known to the government prior to the issuance of the financial statements; (b) the concentration or constraint makes the reporting unit vulnerable to the risk of a substantial impact; (c) an event or events associated with the concentration or constraint that could cause a substantial impact have occurred, have begun to occur, or are more likely than not to begin to occur within 12 months of the date the financial statements are issued. This Statement is expected to improve financial reporting by providing users information that will help them to understand and anticipate the impact of certain risks on a government's financial statements. The requirements of this Statement are effective for fiscal years beginning after June 15, 2024. ACERA will implement the provisions of this Statement for the fiscal year ending December 31, 2025.

## 2. Plan Description

ACERA is an independent public employees' retirement system which operates a cost-sharing, multiple-employer defined benefit pension plan serving participating employers. In addition, ACERA administers a cost-sharing multiple-employer defined benefit Other Postemployment Medical Benefits (OPEB) and Non-OPEB even though there is no direct contribution made to fund these non-vested benefits. ACERA began operations in its present form on January 1, 1948.

ACERA is governed by the California constitution, and state and federal laws, including but not limited to the

1937 Act, beginning at California Government Code Section 31450 et. seq., PEPRA and the bylaws and policies adopted by the Board of Retirement.

These laws and policies govern ACERA's plan structure and operation. The provisions of state and federal laws govern requirements concerning membership, governance, contributions, benefits, service, retirement eligibility, disability, cost-of-living adjustments, financial provisions, optional allowances, reciprocal benefits, administration expenses, etc.

ACERA is not affiliated with the California Public Employees' Retirement System (CalPERS).

ACERA meets member and beneficiary obligations through member contributions, participating employer contributions, and investment income. Contributions are prudently invested in accordance with the 1937 Act.

ACERA provides basic lifetime retirement, disability, and death benefits to members who meet the minimum age and length-of-service requirements. In addition, ACERA administers supplemental retiree postemployment medical, dental care, vision care, and cost-of-living adjustments programs. In this report, "basic" benefits refers to vested benefits provided for in accordance with the 1937 Act, whereas "supplemental" benefits refers to additional non-vested benefits paid at the discretion of the Board of Retirement and subject to available funds.

## Board of Retirement

The Board of Retirement has sole and exclusive responsibility over plan assets and the administration of the retirement system to ensure prompt delivery of benefits and related services as provided in Article XVI of the California Constitution.

The Board of Retirement has nine members and two alternates. The Alameda County Board of Supervisors appoints four members, and four are elected by ACERA's membership. The County Treasurer serves as an ex-officio board member. One alternate member is elected by safety members and one alternate member is elected by retired members. The Board of Retirement is currently composed of the following members:

### Board of Retirement

| Type of Member | Elected / Appointed By | # Of Members |
|---|---|---|
| County Treasurer | Ex-Officio Member | 1 |
| County Resident | Appointed by Board of Supervisors | 4 |
| General Member | Elected by General Members | 2 |
| Safety Member | Elected by Safety Members | 1 |
| Retired Member | Elected by Retired Members | 1 |
| Alternate Retired Member | Elected by Retired Members | 1 |
| Alternate Safety Member | Elected by Safety Members | 1 |

Board members, with the exception of the County Treasurer, serve a three-year term in office, with no term limits.

The Board of Retirement oversees the Chief Executive Officer in the performance of his duties in accordance with the law and ACERA's board policies.

## Authority for Establishing and Amending Benefit Provisions

State and federal laws, as well as the California constitution, provide the authority for establishing ACERA's benefit provisions. In most cases, where the 1937 Act provides options concerning the allowance of credit for service, the offering of benefits, or the modification of benefit levels, the law generally requires approval of the employers' governing boards for the option to take effect.

Separately, in 1984, the Alameda County Board of Supervisors and the Board of Retirement approved the adoption of Article 5.5 of the 1937 Act. This adoption permitted the establishment of a Supplemental Retiree Benefits Reserve (SRBR) for ACERA.

Article 5.5 provides for the systematic funding of the SRBR and stipulates that its assets be used only for the benefit of retired members and their beneficiaries. The 1937 Act grants exclusive authority over the use of SRBR funds to the Board of Retirement. The SRBR provides funding for non-vested and non-pension benefits including supplemental COLA and retired member death benefit. Other non-vested retiree health benefits are provided in agreement with ACERA's participating employers through the use of Internal Revenue Code 401(h) accounts. These retiree health benefits include dental and vision care, Medicare Part B reimbursement, and the Monthly Medical Allowance (MMA). Employer contributions fund the 401(h) benefits. ACERA treats an equal amount of SRBR assets as employer contributions for pensions. The provision of all supplemental benefits is subject to annual review and authorization by the Board of Retirement.

## Participating Employers

ACERA operates as a cost-sharing, multiple-employer, defined benefit plan for Alameda County (the "County"), and five other participating employers (which are special districts) located in the County, but not under the control of the County Board of Supervisors. In this report, the County and special districts are referred to as "participating employers". All risks and costs, including benefit costs, are shared by the participating employers.

The five other participating employers are:

- Superior Court of California for the County of Alameda
- Alameda Health System
- First 5 Alameda County
- Housing Authority of the County of Alameda
- Livermore Area Recreation and Park District

Alameda County Office of Education is no longer an active participating employer as the last active member under this employer retired on December 30, 2016. However, this employer still owes an unfunded actuarial accrued liability to ACERA as ACERA still pays retirement benefits to several of its retired members.

## Plan Membership

With the exception of Alameda Health System, all full-time employees of participating employers who are appointed to permanent positions are statutorily required to become members of ACERA. With the passage of AB1008 in 2013, employees of newly acquired hospitals by Alameda Health System are not eligible for membership unless they are subject to an existing memorandum of understanding. Effective October 31, 2013, all newly hired unrepresented employees of any Alameda Health System facility are prohibited from membership.

## Safety and General Members

ACERA has two membership types, Safety and General, which are based on job classifications:

- Safety members are employees working in active law enforcement, or positions that have been designated Safety positions by the Board of Retirement (e.g., Juvenile Hall Group Counselors and Probation Officers).
- General members are all other members.

## Defined Benefit Pension Plan

### ACERA's Membership

As of December 31, 2023

| Members, Survivors, and Beneficiaries Now Receiving Benefits | |
|---|---|
| Service Retirement | 8,674 |
| Disability Retirement | 1,005 |
| Beneficiaries and Survivors | 1,325 |
| **Subtotal** | **11,004** |
| **Active Members** | |
| Active Vested Members | 7,668 |
| Active Non-vested Members | 3,827 |
| **Subtotal** | **11,495** |
| **Deferred Members** | 3,843 |
| **Total Membership** | **26,342** |

### *Membership Status and Vesting*

Members are considered to be active, as long as they remain employed full-time by a participating employer (or subsequently change to part-time employment).

Members become vested in retirement benefits upon completion of five years of credited service.

### *Service Retirement*

ACERA's regular (service) retirement benefits are based on service credit, final average salary, and age at retirement, according to the applicable statutory formula. Members who qualify for service retirement are entitled to receive monthly service retirement benefits for life.

Non-Tier 4 vested General members may retire at age 50, with 5 years of service credit and a total of 10 years of qualifying membership, or at any age with 30 years of service, or at age 70, regardless of service credit.

Non-Tier 4 vested Safety members may retire at age 50, with 5 years of service credit and a total of 10 years of qualifying membership, or at any age, with 20 years of service, or at age 70, regardless of service credit.

Tier 4 General members may retire at age 52, with 5 years of service credit or at age 70, regardless of service credit.

Tier 4 Safety members may retire at age 50, with 5 years of service credit or at age 70, regardless of service credit.

### *Active Member Death Benefits*

ACERA provides specified active member death benefits to beneficiaries and members' survivors.

The basic active member death benefit consists of a member's retirement contributions plus interest plus one month's pay for each full year of service (up to the maximum of six-month's pay). Other death benefits may be available based on years of service, marital status, and whether the member has minor children.

### *Tier 1, Tier 2, Tier 3, and Tier 4 Benefit Levels*

The structure of the plan provides for four benefit levels or tiers within General membership and three tiers within Safety membership. The tiers differ mainly in the magnitude of contributions required and benefits received.

Generally, members with an entry date prior to July 1, 1983, belong to Tier 1, while those with an entry date on or after July 1, 1983, and before January 1, 2013, belong to Tier 2, and members with an entry date on or after January 1, 2013, belong to Tier 4.

Most active ACERA members belong to Tier 2. Alameda County Housing Authority members are mostly in Tier 1, but those hired between September 30, 2011, and January 1, 2013, belong to Tier 2. Relative to the Tier 1 members, active members in Tier 2 contribute somewhat less to the pension plan as a percent of compensation and will receive somewhat lower retirement benefits.

Effective October 1, 2008, Livermore Area Recreation and Park District (LARPD) implemented a General Tier 3 plan for current and new employees. Those LARPD members hired before October 1, 2008, who elect General Tier 3 membership, and those hired after October 1, 2008, but before January 1, 2013, will receive an enhanced benefit of 2.5% at 55, which is higher than the Tier 1 benefit (at most retirement ages) as a result of higher employer and employee contribution rates.

Effective October 17, 2010, and before January 1, 2013, there are three benefit formula options for Safety membership within Tier 2. Two benefit formulas of 2% at 50 and 3% at 55 were implemented for new Safety members with different contribution rates. The Safety members hired before October 17, 2010, are still under the benefit formula of 3% at 50.

In accordance with PEPRA, General and Safety members hired on or after January 1, 2013, belong to Tier 4. Tier 4 members are required to contribute at least 50% of the normal cost rate. Under the Tier 4 formulas, General members will receive a benefit of 2.5% at age 67 and Safety members will receive a benefit of 2.7% at age 57. Note 3, Contributions, starting on page 31 explains retirement plan contribution rates.

### *Integration with Social Security*

The contributions and benefits associated with the federal Social Security program are completely separate from ACERA members' contributions and benefits. Most General members of ACERA are covered by Social Security, and most Safety members are not.

ACERA contributions and benefits are integrated with Social Security for non-Tier 4 members who are covered by Social Security. The purpose of integration is to reduce the degree in which ACERA's plan coverage overlaps Social Security coverage.

### *Basic Cost of Living Adjustment*

Retirement allowances are indexed for inflation. Retirees receive automatic basic Cost-of-Living Adjustments (COLAs) based upon the Consumer Price Index (CPI) for the San Francisco Bay Area. The adjustments go into effect on April 1 each year. Under the 1937 Act, annual

COLA increases are capped at 3% for Tier 1 and Tier 3, and 2% for Tier 2 and Tier 4 members. The expected impact of future basic COLA is a factor in setting the contribution rates for members and employers. In any year that the basic COLA adjustment for a retiree falls short of the CPI increase for that year due to the statutory cap, the shortfall is carried over and applied in a future year to the extent that the CPI falls short of the statutory cap in the future year.

The CPI calculation for 2023 was 4.88% and was rounded to 5.00%, the nearest one-half percent, in accordance with California Government Code Section 31870 and 31870.1. There was a maximum of 3.0% COLA increase granted for all Tier 1 and Tier 3 members. A maximum COLA increase of 2.0% was granted to all Tier 2 and Tier 4 members. Tier 1 and Tier 3 members will bank 2.00% and Tiers 2 and 4 members will bank 3.00% in 2023, as the 2023 CPI exceeds the 3% maximum for Tiers 1 and 3 and 2% maximum for Tiers 2 and 4.

### Postemployment Medical Benefits

ACERA administers a medical benefits program for eligible retired members. Benefits include monthly medical allowances and Medicare Part B premium reimbursements. Dental and vision coverages are also available for eligible retired members. These benefits are paid through a 401(h) account, in accordance with federal tax laws. The maximum levels of the monthly medical allowances are reviewed annually by the Board of Retirement.

#### *Program Membership*

Retired members with a minimum of ten years of service credit or those who retired due to a service connected disability are eligible to receive a monthly medical allowance benefit if they enroll in one of the ACERA-sponsored medical plans or Medicare exchange. Retired members eligible for the monthly medical allowance benefit may also be reimbursed for the lowest standard Medicare Part B premium with proof of enrollment in Medicare Part B.

Members receiving a service retirement or a non-service connected disability, with ten or more years of ACERA service credit will be eligible to receive dental and vision allowances. The following are exemptions of the years-of- service eligibility requirements: (a) non-service connected disability recipients with less than ten years of ACERA service credit and with a retirement date effective prior to February 1, 2014; and, (b) all service connected disability recipients, regardless of years of service.

### Non-OPEB

ACERA also provides non-health, postemployment benefits, such as supplemental COLA and a lump sum retired member death benefit.

Separate from the basic COLA, the Board of Retirement implemented an ad-hoc supplemental Cost-of-Living Adjustment (supplemental COLA) program effective January 1, 1998. The supplemental COLA is structured to maintain each retiree's purchasing power at no less than 85% of the purchasing power of the original benefit. Under this program, each retiree's current allowance is adjusted, as necessary, so that the adjusted allowance becomes at least 85% of the original benefit amount indexed with the CPI.

A lump sum retired member death benefit of $1,000 is provided to beneficiaries.

#### *Program Membership*

All retired members are eligible to receive supplemental COLA and retired member death benefit.

### Actuarial Valuation

An annual actuarial funding valuation is performed for the pension plan. In addition, there is a separate annual actuarial valuation performed for Postemployment Medical Benefits and Non-OPEB. Note 6, Actuarial Valuation, starting on page 39 provides additional information about this topic.

## 3. Contributions

### Pension Plan

#### *Authority for Establishing and Amending Obligations to Make Contributions*

The California constitution, as well as state and federal laws, establishes the basic obligations for participating employers and active members to make contribution payments to the pension plan. Member and employer contribution rates are based on recommendations made by an independent actuary and adopted by the Board of Retirement. These rates are based on membership type (General and Safety) and tier (Tiers 1, 2, 3, and 4).

### *Funding Objective*

One of the funding objectives of the pension plan is to establish member and participating employer contribution rates that will remain as level as possible over time as a percentage of payroll, unless plan benefit provisions are changed. The funding for retirement benefits arises from three sources: member contributions, employer contributions, and the earnings on invested assets.

### *Member Contributions and Refunds*

Active members are required by statute to contribute toward pension plan benefits. The non-Tier 4 member contribution rates are formulated on the basis of age-at-date-of-entry and actuarially calculated benefits. The 1937 Act authorizes participating employers to pay all or a portion of an employee's retirement contribution obligation on the employee's behalf. These employer payments are called contribution offsets. Member contributions and credited interest are refundable upon termination of membership. Note 4, Reserves, starting on page 33 explains semi-annual interest crediting. The employer-paid contribution offsets may or may not be refundable.

Pursuant to PEPRA Section 7522.30, Tier 4 members are required to contribute 50% of the normal cost rate. The code also prohibits participating employers from paying any portion of the 50% share of member contributions on the employee's behalf.

### *Employer Contributions*

The pension plan provides lifetime retirement and disability benefits to its members. Participating employers are required by statute to contribute the necessary amounts to fund these estimated benefits not otherwise funded by member contributions or expected investment earnings.

Employer contribution rates vary from year to year and depend on the established level of benefits, the rate of return on investments, and the cost of administering benefits.

### *Member Rates Based on Age-at-Date-of-Entry*

The ranges of current non-Tier 4 member contribution rates based on age-at-date-of-entry are shown as follows (effective September 2023). Generally, each pair of percentages ranges from youngest to oldest within each category. In November 2012, the Board of Retirement approved the use of a single, flat contribution rate, regardless of the age-at-date-of-entry for Tier 4 members.

**Current Member Contribution Rates**

Effective September 2023

| | |
|---|---|
| **Tier 1: (entry date prior to July 1, 1983)** | |
| General | 8.00% - 16.63% |
| Safety 3% @ 50 | 16.15% - 24.78% |
| **Tier 2: (entry date July 1, 1983, and before January 1, 2013)** | |
| General | 5.79% - 12.15% |
| Safety 3% @ 50 | 14.35% - 21.36% |
| **Tier 2: (entry date October 17, 2010, and before January 1, 2013)** | |
| Safety 2% @ 50 | 10.95% - 17.71% |
| Safety 3% @ 55 (with less than 5 years of vesting service) | 16.25% - 23.19% |
| Safety 3% @ 55 (with 5 or more years of vesting service) | 14.25% - 21.19% |
| **Tier 3: (LARPD only - entry date prior to January 1, 2013)** | |
| General | 9.96% - 18.78% |
| **Tier 4: (entry date January 1, 2013 or later)** | |
| General | 9.30% |
| Safety | 17.28% |

For non-Tier 4 members covered by Social Security, the contribution rates shown apply to biweekly salary over \$161 (a one-third reduction in the rates applies to the first \$161 of biweekly salary). The one-third reduction in the rates for the first \$161 of biweekly salary does not apply to Tier 4 member contributions.

### Postemployment Medical Benefits and Contributions

In accordance with federal tax law, postemployment medical benefits and related administrative expenses are paid through a 401(h) account with contributions from the participating employers. There is no requirement and no guarantee that the employers will continue to contribute to the 401(h) account. If authorized by the Board of Retirement, ACERA treats an equal amount of SRBR assets as employer contributions available for paying pension benefits. ACERA's Board of Retirement has no authority to demand future payments from employers to fund the 401(h) account. Consequently, these benefits can only be paid as long as assets are available. When assets are fully depleted, no postemployment medical benefits will be paid by ACERA. In compliance with 1937 Act Section 31618.5, employers allocate a portion of their contribution to the 401(h) account for administrative costs related to providing benefits in addition to contributions for the postemployment medical benefits.

### Pension Obligation Bonds

In 1995 and 1996, the County issued pension obligation bonds and contributed the net bond proceeds to the ACERA pension plan. ACERA received aggregate net proceeds of $591 million from these bonds. Alameda Health System, First 5 Alameda County, and the Superior Court of California for the County of Alameda were part of the County when the pension obligation bonds were issued. They subsequently separated and became discretely presented component units or special districts of the County. The net bond proceeds contributions allow ACERA to provide "pension obligation bond credits" to these employers (thus reducing contributions otherwise payable) over the period of time used by ACERA to amortize its Unfunded Actuarial Accrued Liability (UAAL). These employers received pension obligation bond credits of approximately $63.8 million in the year ended December 31, 2023.

### Advance UAAL Contributions

On June 29, 2021, the County and LARPD made voluntary contributions. The County made an $800 million advance contribution to reduce a portion of the UAAL for its safety membership group. LARPD issued pension obligation bonds on June 22, 2021 and contributed $12.6 million to reduce a portion of its UAAL.

As a result of these advance UAAL payments, the County and LARPD received contribution rate credits effective September 1, 2021, when the contribution rates based on the December 31, 2020 actuarial valuation went into effect. These advance UAAL contribution payments are accounted for in a separate reserve account and amortized by applying the contribution rate credits for the respective participating employers at each semi-annual interest crediting period. The amortized amounts are transferred from the advance UAAL contribution reserve account to the employers' advance reserve and COLA reserve accounts in proportion with the applicable Basic and COLA contribution rate credit percentages. For the year ended December 31, 2023, the amortized balances were $83.1, million and $1.1 million for County Safety and LARPD, respectively.

## 4. Reserves

Reserves represent components of the fiduciary net position. The annual change in ACERA's reserves equals the annual change in the fiduciary net position.

While a member is active, member and employer contributions associated with that member are accumulated in two separate components of reserves—the member reserve and employers' advance reserve. When a member retires, ACERA makes a one-time transfer of the associated contributions plus credited interest from these two reserve components into the retired member reserve, of an amount equal to the estimated lifetime benefits.

### Actuarial Asset Smoothing

Net investment income reported on the Statement of Changes in Fiduciary Net Position affects the reserves indirectly through an actuarial asset "smoothing" process approved by the Board of Retirement. This process is intended to minimize the impact of short-term investment gains or losses. Smoothing of asset gains or losses is conducted semi-annually in conjunction with interest crediting, with calculation periods ending June 30 and December 31. It involves spreading the difference between actual and expected market returns over ten successive semi-annual periods to determine the actuarial value of assets.

### Semi-annual Interest Crediting

ACERA updates reserve balances on a semi-annual basis as of June 30 and December 31 each year. At these times, ACERA carries out a multi-step process to calculate new reserve balances as specified in Article 5.5 of the 1937 Act. The amount of "net earnings" to be credited for the semi-annual period is calculated based on the actuarial smoothing process described earlier. To the extent that net earnings are available, interest is credited to all components of the reserves, with the exception of the market stabilization reserve and the contingency reserve. Interest credited is based upon the actuarial assumed interest rate (or the actual rate if lower). This is defined as "Regular Earnings."

In June 2014, the Board of Retirement approved the use of the contingency reserve to fund the interest shortfall, whenever the Regular Earnings during the 6-month interest crediting period are less than the assumed rate of return, but not negative.

If there are investment earnings above the target investment return rate, 50% is credited to the SRBR and the remaining 50% is credited proportionally to all other reserves (except for the contingency reserve and the market stabilization reserve).

## Components of Reserves

**The Member Reserve** represents the total accumulated member contributions of current active and inactive (deferred) members. Additions include member contributions and credited interest; and deductions include refunds of member contributions along with credited interest and transfers to the retired member reserve made when a member retires.

**The Employers' Advance Reserve** represents the total net accumulated employer contributions for future retirement payments to active and deferred members. Additions include contributions from the employers and credited interest; and deductions include transfers to the retired member reserve made when each member retires or payment of benefits upon the death of an active member. Employer contribution rates are actuarially determined taking into account other events such as a member electing a refund of contributions. Therefore, a refund of member contributions should not have an adverse impact on the accumulation of funds in the employers' advance reserve.

According to Section 31618.5 of the 1937 Act, to the extent that an employer contributes to the 401(h) account to pay the cost of administering postemployment medical benefits, there is an annual transfer from the employers' advance reserve to the supplemental retiree benefits reserve for an amount equal to the postemployment medical benefit related administrative expenses. For the year ended December 31, 2023, the transferred amount was $1.7 million.

**The Retired Member Reserve** represents funds accumulated to pay retirement benefits to retired members. This reserve represents the total net accumulated transfers from the member reserve and the employers' advance reserve (both made at the time a member retires), and credited interest, reduced by payments to retired members, beneficiaries, and survivors.

**The Supplemental Retiree Benefits Reserve (SRBR)** was established on January 1, 1985, under Article 5.5 of the 1937 Act. The SRBR represents funds required by statute to be set aside from regular earnings and investment earnings above the assumed rate of return to provide supplemental benefits to retirees. The reserves table on page 36 shows the amounts of the SRBR currently available to pay for non-vested benefits. The Board of Retirement decides on an annual basis what member benefits to pay from the SRBR.

When there are funds available in the SRBR, the Board of Retirement can approve a transfer of an amount equal to the participating employers' 401(h) contributions and 401(h) administrative cost contributions from the SRBR to the employers' advance reserve. The Board of Retirement may also approve a transfer from the SRBR to the employers' advance reserve to reimburse the employers' payment of implicit subsidy to pay the full cost of postemployment medical benefits. Non-vested benefits currently funded by the SRBR are described in the following two paragraphs.

**The 401(h) Postemployment Medical Benefits Account** is used to pay the medical allowances, Medicare Part B reimbursement, dental and vision, and the associated administrative cost. The account is set up under the provisions of Internal Revenue Code section 401(h), which provides for payment of benefits on a tax-free basis. Each year participating employers decide whether to contribute the needed funds and to identify them as 401(h) account contributions. For the year ended December 31, 2023, the employers funded $49.3 million of 401(h) contributions, including $47.6 million for estimated cost of postemployment medical benefits and $1.7 million for administrative cost of the 401(h) account.

**The Non-OPEB Reserve** is used to pay for the Supplemental COLA and the retired member death benefit. For the year ended December 31, 2023, $1.1 million of Supplemental COLA and $0.2 million of retired member death benefits were paid. The reserve is increased through interest crediting of regular earnings and investment earnings above the assumed rate of return.

**The Advance UAAL Contribution Reserve** represents reserves of voluntary contributions received from the County to reduce a portion of the UAAL balance for its safety membership group and LARPD to reduce a portion of its UAAL for its general membership. The advance UAAL payments of $800 million from the County and $12.6 million from LARPD were received on June 29, 2021. As a result, the balances were not eligible to share interest crediting from the net deferred gains accumulated in the Market Stabilization Reserve for the five-year interest crediting cycle through June 30, 2021. The balances in the advance UAAL contribution reserve were eligible for interest crediting of regular and excess earnings beginning with the December 31, 2021 semi-annual interest crediting cycle. The advance UAAL payments will be amortized over time by multiplying the pensionable wages during a particular interest crediting period by the respective contribution rate credits received by the affected membership groups. The amortized balances get transferred to the employers' advance reserve and the COLA reserve accounts in proportion to the rate credit allocation or breakdown between the Basic and COLA contributions. From September 2022 through August 2023, the UAAL rate credit applied to the County safety membership was 41.89% and the rate credit for LARPD's general membership was 29.19%.

Effective September 2023, the UAAL rate credit applied to the County safety membership is 39.45% and the rate credit for LARPD's general membership is 28.66%.

**The Contingency Reserve** represents reserves accumulated to satisfy the statutory requirement of establishing a reserve against deficiencies in future interest crediting. The size of the reserve is determined semi-annually by the Board of Retirement. The 1937 Act stipulates that the contingency reserve cannot exceed 3.0% of total assets and that, if the reserve falls below 1.0% of total assets, earnings from subsequent periods shall fund the reserve until the reserve level is at least 1.0% of total assets. Effective with the June 30, 2014, interest crediting cycle, the Board of Retirement set the contingency reserve to be a minimum of 1.0% of total assets, and authorized the use of funds in the contingency reserve to cover interest shortfalls whenever earnings during the 6-month interest crediting period are less than the assumed rate of return, but not negative.

**The Market Stabilization Reserve Account** represents the deferred balance of investment gains or losses not yet realized in the interest crediting process. This balance arises from the five-year actuarial smoothing process for investment earnings. The market stabilization reserve account balance thus represents the difference between (1) the aggregate amounts initially deferred (smoothed) from the ten most recent semi-annual periods, and (2) the amounts subsequently recognized for semi-annual interest crediting from these same ten periods.

## Allocation of Earnings to Reserves for 2023

ACERA had $1.2 billion gains from investment activities net of administrative expenses for the year ended December 31, 2023. The Contingency Reserve was adjusted to 1% of total assets or $114.8 million at December 31, 2023 and subsequently reduced to $36.7 million or 0.32% of total assets to fund the interest crediting shortfall for the six month interest crediting period as of December 31, 2023.

The Market Stabilization Reserve account increased by $501.32 million during 2023 as a result of applying the actuarial five-year smoothing process and the actuarial value corridor limits. The advance UAAL contribution reserve accounts received interest crediting of approximately $29.2 million and all other reserve accounts (excluding the contingency and market stabilization reserves) received interest crediting of approximately $664.7 million.

### Reserves

As of December 31, 2023 (Dollars in Thousands)

| | Pension and Non-OPEB | Postemployment Medical Benefits | Total |
|---|---|---|---|
| Member Reserve | $ 1,894,640 | $ - | $ 1,894,640 |
| Employers' Advance Reserve | 1,835,763 | - | 1,835,763 |
| Retired Member Reserve | 5,901,822 | - | 5,901,822 |
| SRBR | 111,280 | 1,075,108 | 1,186,388 |
| 401(h) Account | - | 10,117 | 10,117 |
| **Subtotal of All Other Reserves** | **9,743,505** | **1,085,225** | **10,828,730** |
| County Safety Membership - Adv. UAAL Reserve | 694,561 | - | 694,561 |
| LARPD General Membership - Adv. UAAL Reserve | 11,653 | - | 11,653 |
| **Subtotal of Advance UAAL Contribution Reserve** | **706,214** | **-** | **706,214** |
| Contingency Reserve | 36,670 | - | 36,670 |
| Market Stabilization Reserve Account | (292,793) | - | (292,793) |
| **Total Reserves** | **$ 10,193,596** | **$ 1,085,225** | **$ 11,278,821** |

## 5. Net Pension Liability

The components of the Net Pension Liability were as follows:

### Net Pension Liability

(Dollars in Thousands)

| | December 31, 2023 | December 31, 2022 |
|---|---|---|
| Total Pension Liability | $ 11,961,224 | $ 11,489,051 |
| Plan's Fiduciary Net Position[1] | 10,218,484 | 9,257,791 |
| **Net Pension Liability** | **$ 1,742,740** | **$ 2,231,260** |
| Plan's Fiduciary Net Position as a Percentage of the Total Pension Liability | 85.43% | 80.58% |

1 For 2023, the Plan's Fiduciary Net Position amount shown ($10,218,484) includes the net fair value of assets ($11,278,821) less OPEB-related SRBR assets ($1,060,337). The OPEB-related SRBR assets include $1,070,992 in the SRBR-OPEB reserve (after reducing the reserve by the $4,116 SRBR implicit subsidy transfer), and $10,117 in the 401(h) reserve, minus a proportionate share of the deferred market losses commensurate with the size of the OPEB to total SRBR and 401(h) reserve to valuation and 401(h) reserves of ($20,772). For 2022, the Plan's Fiduciary Net Position amount shown ($9,257,791) includes the net fair value of assets ($10,298,512) less OPEB-related SRBR assets ($1,040,721). The OPEB-related SRBR assets include $1,105,726 in the SRBR-OPEB reserve (after reducing the reserve by the $7,981 SRBR implicit subsidy transfer), and $8,979 in the 401(h) reserve, minus a proportionate share of the deferred market losses commensurate with the size of the OPEB to total SRBR and 401(h) reserve to valuation and 401(h) reserves ($73,984).

The Net Pension Liability (NPL) for the plan was measured as of December 31, 2023 and 2022. The Plan's Fiduciary Net Position was valued as of the measurement dates and the Total Pension Liability was determined based upon rolling forward the Total Pension Liability (TPL) from actuarial valuations as of December 31, 2022 and 2021, respectively.

The Total Pension Liability and the Plan's Fiduciary Net Position include liabilities and assets for non-OPEB. The assets for non-OPEB are held in the SRBR to pay non-vested Supplemental COLA and the retired member death benefit.

## Actuarial Assumptions

The actuarial assumptions used to develop the December 31, 2023 TPL were based on the results of an experience study for the period December 1, 2019 through November 30, 2022, applied to all periods included in the measurement. The actuarial assumptions used to develop the December 31, 2022, TPL were based on the results of an experience study for the period December 1, 2016 through November 30, 2019, applied to all periods included in the measurement. They are the same assumptions used in the December 31, 2023 and December 31, 2022 funding valuations for ACERA, respectively.

### Key Assumptions Used in the Measurement

| Valuation Date | December 31, 2023 | December 31, 2022 |
|---|---|---|
| Inflation | 2.50% | 2.75% |
| Salary Increases | General: 8.00% to 3.45% and Safety: 11.40% to 4.00%, vary by service, including inflation | General: 8.35% to 3.65% and Safety: 11.25% to 4.05%, vary by service, including inflation |
| Investment Rate of Return | 7.00% , net of pension plan investment expense, including inflation | 7.00% , net of pension plan investment expense, including inflation |
| Other Assumptions Based on Actuarial Experience Study of | December 1, 2019 through November 30, 2022 | December 1, 2016 through November 30, 2019 |

## Long-Term Expected Rate of Return

The long-term expected rate of return on pension plan investments[1] was determined in 2023 using a building-block method in which expected future real rates of return (expected returns, net of inflation and, beginning with December 31, 2023, any applicable investment management expenses) are developed for each major asset class. These returns are combined to produce the long-term expected arithmetic rate of return for the portfolio by weighting the expected arithmetic real rates of return by the target asset allocation percentage, adding expected inflation and subtracting expected investment expenses (beginning with December 31, 2023, including only investment consulting fees, custodian fees and other miscellaneous investment expenses and fees but excluding investment manager fees) and a risk margin. Beginning with December 31, 2023 this portfolio return is further adjusted to an expected geometric real rate of return for the portfolio.

The target allocation (approved by the Board) and projected arithmetic real rates of return for each major asset class, after deducting inflation and applicable investment management expenses, are shown in the following table. Prior to December 31, 2023, these rates were before deducting investment expenses while for December 31, 2023, they are after deducting applicable investment expenses. This information was used in the derivation of the long- term expected investment rate of return assumption for the December 31, 2023 actuarial valuation. This information will be subject to change every three years based on the results of an actuarial experience study.

1 Note that the investment return assumption for funding purposes was developed net of both investment and administrative expenses; however, the same investment return assumption was used for financial reporting purposes, and it was considered gross of administrative expenses for financial reporting purposes. (This resulted in an increase in the margin for adverse deviation when using that investment return assumption for financial reporting.).

## Target Asset Allocation and Projected Arithmetic Real Rate of Return

| Asset Class | Target Allocation | Long-Term Expected Arithmetic Real Rate of Return* |
|---|---|---|
| US Large Cap Equity | 21.60% | 6.00% |
| US Small Cap Equity | 2.40% | 6.65% |
| International Developed Equity | 16.30% | 7.01% |
| International Small Cap Equity | 2.90% | 7.34% |
| Emerging Markets Equity | 4.80% | 8.80% |
| Core Fixed Income | 10.50% | 1.97% |
| High Yield Bonds | 1.50% | 4.63% |
| Global Fixed Income | 2.00% | 1.17% |
| Private Equity | 11.00% | 9.84% |
| Core Real Estate | 6.30% | 3.86% |
| Value Added Real Estate | 1.80% | 6.70% |
| Opportunistic Real Estate | 0.90% | 8.60% |
| Commodities | 0.90% | 4.21% |
| Private Credit | 4.00% | 6.47% |
| Absolute Return | 8.00% | 2.10% |
| Infrastructure | 5.10% | 7.30% |
| **Total** | **100.00%** | **5.89%** |

* Arithmetic real rates of return are net of inflation.

### Discount Rate

The discount rate used to measure the Total Pension Liability (TPL) was 7.00% as of December 31, 2023 and December 31, 2022. Article 5.5 of the Statute, which authorizes the allocation of 50% of excess earnings to the SRBR, does not allow for the use of a different investment return assumption for funding than is used for interest crediting. In order to reflect the provisions of Article 5.5, future allocations to the SRBR have been treated as an additional outflow against the Plan's Fiduciary Net Position in the GASB crossover test[1]. It is estimated that the additional outflow would average approximately 0.75% of assets over time, based on the results of the actuarial stochastic modeling of the 50% allocation of future excess earnings to the SRBR.

The projection of cash flows used to determine the discount rate assumes plan member contributions will be made at the current contribution rates and that employer contributions will be made at rates equal to the actuarially determined contribution rates[2] plus additional future contributions that would follow from the future allocation of excess earnings to the SRBR. Projected employer contributions that are intended to fund the service costs for the future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the pension plan's 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 both December 31, 2023 and December 31, 2022.

1 The purpose of the GASB crossover test is to determine if the full expected return (or 7.00% in this case) can be used as the discount rate to determine the TPL and the NPL. That is, if there is no crossover point where the projected benefit payments would exceed the Plan's Fiduciary Net Position, then the full expected return assumption can be used. ACERA does pass the crossover test, which means that the full 7.00% investment rate of return assumption can be used as the discount rate to determine the TPL and the resulting NPL.

2 For this purpose, only employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included.

### Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the Net Pension Liability as of December 31, 2023, calculated using the discount rate of 7.00%, as well as what the Net Pension Liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.00%) or 1-percentage-point higher (8.00%) than the current rate:

As of December 31, 2023 (Dollars in Thousands)

| | 1% Decrease (6.00%) | Current Discount Rate (7.00%) | 1% Increase (8.00%) |
|---|---|---|---|
| **Net Pension Liability** | $ 3,272,235 | $ 1,742,740 | $ 486,338 |

### Money-Weighted Rate of Return

The annual money-weighted rate of return expresses investment performance, net of investment expenses, adjusted for the changing amounts actually invested. For the year ended December 31, 2023, the annual money-weighted rate of return on the total investments (pension plan and OPEB) was 12.30%. For trend information, refer to the Schedule of Investment Returns under the RSI section on page 62.

## 6. Actuarial Valuation

ACERA retains an independent actuarial firm to conduct actuarial valuations of the pension plan, postemployment medical benefits, and non-OPEB to monitor ACERA's funding status and to 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 far into the future. Examples include assumptions about future employment, mortality, and health care cost trends. Actuarially determined amounts are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future.

### Pension Plan

The purpose of the valuation is to reassess the magnitude of ACERA's benefit commitments in comparison with the assets currently available to support those commitments. As a result, employer and member contribution rates are adjusted accordingly. For the pension plan, the actuarial assumptions have been selected to estimate, as closely as possible, what the actual cost of the plan will be so as to permit an orderly method for setting aside contributions in the present to provide benefits in the future, and to maintain equity among generations of participants and taxpayers.

Contribution requirements are determined under the entry age cost method. This method is designed to collect contributions as a level percentage of pay. Any actuarial gains or losses that occur under this method are amortized as a level percentage of pay. To minimize the impact of short-term investment gains or losses, the Board of Retirement adopted an asset smoothing process described starting on page 33 under Actuarial Asset Smoothing.

There are no legal or contractual maximum contribution rates under the 1937 Act that would affect the projection of benefits for financial reporting purposes.

## ACTUARIAL METHODS AND ASSUMPTIONS - Pension Plan

The status and funding progress for the pension plan is calculated based on the following actuarial methods and assumptions.

| | |
|---|---|
| Valuation Date | 12/31/2022 |
| Actuarial Cost Method | Entry Age |
| Amortization Method | Level percent of compensation |
| Amortization of UAAL (Prior to January 1, 2012) | Closed 30 years decreasing period |
| Remaining Amortization Period (Prior to January 1, 2012) | 10 years |
| Amortization of New UAAL (On or after January 1, 2012) | The voluntary County Safety UAAL contributions are amortized over a 13-year period effective July 1, 2021 (with 11.5 years remaining as of December 31, 2022). The voluntary LARPD General UAAL contributions are amortized over a 16-year period effective July 1, 2021 (with 14.5 years remaining as of December 31, 2022). Effective December 31, 2022, the existing LARPD General UAAL layers are amortized over 14.5 years.<br>Plan amendments are amortized over separate decreasing 15-year periods.<br>Early retirement incentive programs (ERIPs) are amortized over separate decreasing 5-year periods.<br>Assumption and method changes are amortized over separate decreasing 20-year periods.<br>Experience gains/losses are amortized over separate decreasing 20-year periods. |
| Asset Valuation Method | Actuarial Value of Assets is determined by phasing in any difference between actual and expected market return semi-annually over a five-year period. |
| Valuation Value of Assets | The Actuarial Value of Assets reduced by the value of the non-valuation reserves. |
| Actuarial Assumptions | Interest Rate: 7.00%<br>Inflation Rate: 2.75%<br>Across-the-Board Salary Increases: 0.50%<br>Salary Increases: General 8.35% - 3.65% and Safety 11.25% - 4.05%<br>Demographic: refer to page 118 |
| Postemployment Benefit Increases | 2.75% of Tier 1 and Tier 3 retirement income<br>2.00% of Tier 2 and Tier 4 retirement income |

### Postemployment Medical Benefits

If participating employers continue to make contributions to the 401(h) account, and the Board of Retirement continues to treat equal amounts of SRBR assets as contributions for pensions, then the postemployment medical benefits are 96.1% funded as of December 31, 2022, assuming that the current benefit continues in perpetuity.

Actuarial calculations reflect a long-term perspective and employ methods and assumptions that are designed to reduce short-term volatility.

Under the actuarial assumed rate of 7.00% per year for future investment earnings, it is anticipated that available assets will be sufficient to fund postemployment medical benefits through year 2050.

## ACTUARIAL METHODS AND ASSUMPTIONS - Postemployment Medical Benefits

The status and funding progress for the postemployment medical benefits is calculated based on the following actuarial methods and assumptions.

| | |
|---|---|
| Valuation Date | 12/31/2022 |
| Actuarial Cost Method | Entry Age |
| Asset Valuation Method | Same as Pension Plan |
| Actuarial Assumptions | Same as Pension Plan |
| Health Care Cost Trend Rates: | |
| **Non-Medicare Plan** | Actual premium increase for 2023, then graded down from 7.25% by 0.25% each year until it reaches 4.50% |
| **Medicare Advantage Plan** | Actual premium increase for 2023, then graded down from 6.00% by 0.25% each year until it reaches 4.50% |
| **Dental** | Actual premium increase for 2023, 0.00% for 2024, and 4.00% each year thereafter |
| **Vision**[1] | 0.00% for the first two years and 4.00% each year thereafter |
| **Medicare Part B** | 4.50% |
| Postemployment Benefit Increases: | |
| **Dental, Vision, and Medicare Part B** | Subsidies are assumed to increase at 100% of the health care cost trend rates for these benefits. |
| **Monthly Medical Allowance (MMA)** | Subsidies are assumed to increase at 50% of the health care cost trend rates for MMA benefits or 3.00% from calendar year 2024 to 2025, graded down to the ultimate rate of 2.25% over 6 years. |

1 Vision premiums fixed at 2021 levels for the first two years to reflect a five-year rate guarantee.

### Non-OPEB

Actuarial calculations reflect a long-term perspective and employ methods and assumptions that are designed to reduce short-term volatility.

Under the actuarial assumed rate of 7.00% per year for future investment earnings, it is anticipated that available assets will be sufficient to fund the Supplemental COLA and retired member death benefit program through year 2038.

## ACTUARIAL METHODS AND ASSUMPTIONS - Non-OPEB

The status and funding progress for the Non-OPEB is calculated based on the following actuarial methods and assumptions.

| | |
|---|---|
| Valuation Date | 12/31/2022 |
| Actuarial Cost Method | Entry Age |
| Asset Valuation Method | Same as Pension Plan |
| Actuarial Assumptions | Same as Pension Plan |
| Postemployment Benefit Increases: | |
| **Supplemental COLA Benefits** | Payable when the current allowance from the pension plan drops below 85% of the original pension plan benefit indexed with CPI. Benefits are assumed to increase by the difference between inflation and the cost-of-living benefit guaranteed in the pension plan (3.00% for Tier 1 and Tier 3; and 2.00% for Tier 2, Tier 2C, Tier 2D, and Tier 4), subject to other limitations. |

## 7. Postemployment Medical Benefits and Net OPEB Liability

### Plan Description

ACERA administers a cost-sharing multiple-employer defined benefit non-vested medical benefits program for eligible retired members even though there is no direct contribution made to fund these non-vested benefits. Retirees can also purchase medical benefits for eligible dependents on an out-of-pocket basis. The postemployment medical, dental and vision benefits and the related administrative costs are paid through a 401(h) account funded by the participating employers' 401(h) account contributions.

The plan provides the following postemployment benefits:

- Health care subsidy in the form of monthly medical allowance,
- Medicare Part B reimbursement, and
- Dental and vision subsidies.

These benefits are paid in the form of a monthly medical allowance. The allowance is subject to annual reauthorization by the Board of Retirement.

### Plan Membership

| Demographic Data as of December 31, 2023 | |
|---|---|
| Retired members receiving medical benefits | 6,869 |
| Retired members receiving dental and vision benefits | 8,416 |
| Vested terminated members entitled to, but not receiving benefits | 560 |
| Active members | 11,547 |

### Benefits Provided

The County negotiates medical contracts with the providers covering both active and retired members. This arrangement results in "blended" medical premium rates that allow early retirees under 65 years of age, not yet Medicare-eligible, to purchase medical insurance from one of these providers at rates lower than otherwise available (an "implicit subsidy"). ACERA and the County collectively determined that the total amount of implicit subsidy for the blended medical premium rate for the year 2022 was $7.8 million. SRBR assets in this amount were treated as a pension contribution in 2023 upon the Board of Retirement's approval to compensate the County for the implicit subsidy. The estimated implicit subsidy amount for 2023 is $4.1 million. Outside of the County negotiated group plans, retirees over the age of 65 have the option to purchase individual Medicare insurance through a Medicare exchange. ACERA utilizes Health Reimbursement Accounts (HRAs) to facilitate the monthly medical allowance for these members.

### Benefit Eligibility

Only ACERA's retirees are eligible to receive the medical, dental and vision subsidies; dependents are ineligible to receive these benefits. Retirees eligible for monthly medical allowance are also eligible for reimbursement of Medicare Part B premiums. The 2023 maximum monthly allowance for group plans and under age-65 members enrolled in individual insurance exchange was $616.12 and $471.99 for members enrolled in the individual plans through the Medicare exchange. The maximum monthly combined dental and vision subsidy was $55.87 in 2023.

The actual amount of the monthly medical allowance for each retiree depends on the retiree's number of years of service. A minimum of 10 years of service is required for service retirement and non-duty disability retirement. There is no minimum service requirement for duty disability retirees. The subsidies are 50% for retirees with 10-14 years of service, 75% for retirees with 15-19 years of service, and 100% for retirees with 20+ years of service.

### Covered Retirees

Retirees currently enrolled in the medical, dental, and vision plans through the program are as follows:

As of December 31, 2023

| Number of Subsidized Retirees | |
|---|---|
| Medical | 5,275 |
| Medicare Exchange | 1,854 |
| Medicare Part B | 6,059 |
| Dental and Vision | 8,538 |

## Contributions and Reserves

There are no legal or contractual contribution requirements for the OPEB plan. Please refer to Note 3 starting on page 31 for details.

Reserve requirements of the SRBR are disclosed under Note 4 starting on page 33.

## Investments

ACERA's OPEB plan is unique in that there are no direct contributions to invest for this plan. Funding for the OPEB plan relies entirely on semi-annual earnings allocations from the total fund to the Supplemental Retiree Benefits Reserve (SRBR) as mandated by Article 5.5 of the 1937 Act. ACERA's total fund includes assets of the pension plan and SRBR. The OPEB assets are accumulated in the 401(h) account and the SRBR OPEB reserve account. Therefore, references to investment target allocations, long-term expected rate of return, and discount rate all apply to the total fund.

The total fund's annual money-weighted rate of return on investments, net of investment expenses is reported on page 62 of the RSI.

## Net OPEB Liability

The components of the Net OPEB Liability were as follows:

(Dollars in Thousands)

| | December 31, 2023 | December 31, 2022 |
|---|---|---|
| Total OPEB Liability | $ 1,268,808 | $ 1,232,017 |
| Plan's Fiduciary Net Position[1] | 1,060,337 | 1,040,721 |
| **Net OPEB Liability** | **$ 208,471** | **$ 191,296** |
| Plan's Fiduciary Net Position as a Percentage of the Total OPEB Liability | 83.57% | 84.47% |

1 For 2023, the Plan's Fiduciary Net Position amount shown ($1,060,337) includes the OPEB-related SRBR reserve of $1,070,992 (after reducing the reserve by the SRBR implicit subsidy transfer of $4,116) and the 401(h) reserve ($10,117), less the proportionate share of the net deferred investment loss that is commensurate with the size of the OPEB SRBR reserve ($20,772). For 2022, the Plan's Fiduciary Net Position shown ($1,040,721) includes the OPEB-related SRBR reserve of $1,105,726 (after reducing the reserve by the SRBR implicit subsidy transfer of $7,981) and 401(h) reserve ($8,979), less the proportionate share of the net deferred investment loss that is commensurate with the size of the OPEB SRBR reserve ($73,984).

The Net OPEB Liability was measured as of December 31, 2023 and 2022. The Plan's Fiduciary Net Position was valued as of the measurement date, while the Total OPEB Liability was determined by rolling forward the Total OPEB Liability as of December 31, 2022 and 2021, respectively, with adjustments to the 2022 Total OPEB Liability for preliminary assumptions adopted for the December 31, 2023 valuation.

## Plan Provisions

The plan provisions used in the measurement of the Net OPEB Liability as of December 31, 2023 and 2022 are the same as those used for the SRBR sufficiency valuation as of December 31, 2022 and 2021, respectively.

## Actuarial Assumptions

The actuarial assumptions used for the December 31, 2023 valuations were based on the results of the experience study for the period from December 1, 2019 through November 30, 2022 that were approved by the Board effective with the December 31, 2023 valuation and the health care trend assumptions recommended for the sufficiency study for the SRBR as of December 31, 2023. The actuarial assumptions used for the December 31, 2022 valuation were based on the results of the experience study for the period from December 1, 2016 through November 30, 2019 that were approved by the Board effective with the December 31, 2020 valuation and health care trend assumptions recommended for the sufficiency study for the SRBR as of December 31,2022. The assumptions used in the December 31, 2023 and December 31, 2022 SRBR OPEB actuarial valuations for ACERA were applied to all periods included in the measurement.

## Key Assumptions Used in the Measurement

| Valuation Date | December 31, 2023 | December 31, 2022 |
|---|---|---|
| Investment Rate of Return | 7.00% , net of OPEB investment expense, including inflation | 7.00% , net of OPEB investment expense, including inflation |
| Inflation | 2.50% | 2.75% |
| Health Care Premium Trend Rates | Used to project health care cost after calendar year 2024: | Used to project health care cost after calendar year 2023: |
| **Non-Medicare medical plan** | 8.50% in 2024, 7.50% in 2025, then graded from 7.00% in 2026 to ultimate 4.50% over 10 years. | Graded from 7.50% in 2023 to ultimate 4.50% over 12 years |
| **Medicare medical plan** | 16.47%[1] in 2024, then graded from 7.00% in 2025 to ultimate 4.50% over 10 years. | Graded from 6.25% in 2023 to ultimate 4.50% over 7 years |
| **Dental** | 0.00% in 2024 to reflect a two-year rate guarantee (premiums fixed at 2024 level for 2024 and 2025) and 4.00% thereafter. | 4.00% |
| **Vision** | 0.00% for 2024 to reflect a five-year rate guarantee (premiums fixed at 2021 level for 2022, 2023, 2024 and 2025) and 4.00% thereafter. | 0.00% for the first two years to reflect a five-year rate guarantee (premiums fixed at 2021 level for 2022, 2023, 2024 and 2025) and 4.00% thereafter. |
| **Medicare Part-B**[2] | 4.50% | 4.50% |
| Other Assumption Based on Actuarial Experience Study | December 1, 2019 through November 30, 2022 | December 1, 2016 through November 30, 2019 |

1 The initial 16.47% trend rate reflects an estimated increase to the baseline monthly Kaiser Senior Advantage premiums of $28 (8.00%) plus a one-time estimated increase of $30 (7.84%) due to the Inflation Reduction Act of 2022 (IRA), which includes material benefit costs-sharing changes for 2025, most notably implementing a $2,000 member out -of-pocket maximum, as well as various funding changes for Medicare prescription drug plans.

2 The actual 2023 premium increase of 5.93% reflecting the standard 2024 premium of $174.70 per month was reflected in the current year GASB 74 valuation with December 31, 2023 measurement date.

### Long-Term Expected Rate of Return

The long-term expected rate of return on OPEB plan investments[1] was determined in 2023 using a building-block method in which expected future real rates of return (expected returns, net of inflation and, beginning with December 31, 2023, any applicable investment management expenses) are developed for each major asset class. These returns are combined to produce the long-term expected arithmetic rate of return for the portfolio by weighting the expected arithmetic real rates of return by the target asset allocation percentage, adding expected inflation and subtracting expected investment expenses (beginning with December 31, 2023, including only investment consulting fees, custodian fees, and other miscellaneous investment expenses and fees but excluding investment manager fees) and a risk margin. Beginning with December 31, 2023 this portfolio return is further adjusted to an expected geometric real rate of return for the portfolio.

The target allocation (approved by the Board) and projected arithmetic real rates of return for each major asset class, after deducting inflation and applicable investment management expenses, are shown in the target asset allocation and projected arithmetic real rate of return table. Prior to December 31, 2023, these rates were before deducting investment expenses while for December 31, 2023, they are after deducting applicable investment expenses. This information was used in the derivation of the long-term expected investment rate of return assumption for the December 31, 2023 actuarial valuation. This information will be subject to change every three years based on the results of an actuarial experience study. The target asset allocation and projected arithmetic real rate of return table is shown on page 38 Note 05.

1 Note that the investment return assumption for SRBR sufficiency testing (and pension plan funding) purposes was developed net of both investment and administrative expenses; however, the same investment return assumption was used for financial reporting purposes, and it was considered gross of administrative expenses for financial reporting purposes. (This resulted in an increase in the margin for adverse deviation when using that investment return assumption for financial reporting.)

### Discount Rate

The discount rate used to measure the Total OPEB Liability was 7.00% as of December 31, 2023 and December 31, 2022. The projection of cash flows used to determine the discount rate assumed benefits are paid out of the current OPEB SRBR assets. Based on those assumptions, the SRBR OPEB Plan's 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 the OPEB plan investments was applied to all periods of projected benefit payments to determine the Total OPEB Liability as of December 31, 2023 and December 31, 2022

### Sensitivity of the Net OPEB Liability to Changes in the Discount Rate

The following presents the Net OPEB Liability as of December 31, 2023, calculated using the discount rate of 7.00%, as well as what the Net OPEB Liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.00%) or 1-percentage-point higher (8.00%) than the current rate.

As of December 31, 2023 (Dollars in Thousands)

| | 1% Decrease | Current Discount Rate | 1% Increase |
|---|---|---|---|
| | (6.00%) | (7.00%) | (8.00%) |
| **Net OPEB Liability** | $ 377,657 | $ 208,471 | $ 68,333 |

### Sensitivity of the Net OPEB Liability to Changes in the Health Care Cost Trend Rate

The following presents the Net OPEB Liability as of December 31, 2023, calculated using the trend rate as well as what the Net OPEB Liability would be if it were calculated using a trend rate that is 1-percentage-point lower or 1-percentage-point higher than the current rate.

As of December 31, 2023 (Dollars in Thousands)

| | 1% Decrease[1] | Current Trend Rates[1] | 1% Increase[1] |
|---|---|---|---|
| **Net OPEB Liability** | $ 44,459 | $ 208,471 | $ 411,352 |

1 Current trend rates: 8.50 in 2024, 7.50% in 2025, then graded down from 7.00% in 2026 to 4.50% over 10 years for Non-Medicare medical plan costs; 16.47% in 2024, then graded down from 7.00% in 2025 to 4.50% over 10 years for Medicare medical plan costs, 0.00% in 2024 to reflect a two-year rate guarantee (premiums fixed at 2024 level for 2024 and 2025) and 4.00% thereafter for Dental plan costs; 0.00% in 2024 to reflect a five-year rate guarantee (premiums fixed at 2021 level for 2022, 2023, 2024 and 2025) and 4.00% thereafter for Vision plan costs; and 4.50% for all years for Medicare Part B costs.

## 8. Deposits and Investments

The 1937 Act gives the Board of Retirement exclusive control over ACERA's investment portfolio. Except as otherwise restricted by the California constitution or other laws, the 1937 Act allows the Board of Retirement to prudently invest, or delegate the authority to invest the investment portfolio through the purchase, holding, or sale of any form or type of investment, financial instrument, or financial transaction.

The Board of Retirement investment authority granted under the 1937 Act was also incorporated into the state constitution as the California Pension Protection Act of 1992 (Article 16, Section 17 of the California Constitution), which requires the Board, its officers, and employees to discharge their duties with respect to ACERA and the investment portfolio under the following rules:

- "The members of the retirement board shall discharge their duties with respect to the system solely in the interest of, and for the exclusive purposes of providing benefits to participants and their beneficiaries, minimizing employer contributions thereto, and defraying reasonable expenses of administering the system.
- The members of the retirement board shall discharge their duties with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with these matters would use in the conduct of an enterprise of a like character and with like aims.
- The members of the retirement board shall diversify the investments of the system so as to minimize the risk of loss and to maximize the rate of return, unless under the circumstances it is clearly not prudent to do so."

## Deposits

Operational cash accounts held with a financial institution are swept daily into a pooled money market fund, which invests in repurchase agreements and U.S. treasury bills and notes.

## Investments

ACERA's asset classes include domestic equity, international equity, domestic fixed income, international fixed income, real estate, private equity, absolute return, private credit and real assets. Investments in any asset class may be held in direct form, commingled/pooled form, or both.

As of December 31, 2023, thirteen investment managers managed the stock and fixed income securities portfolios, fourteen investment managers were used for real estate investments, thirty-three investment managers were used for private equity, six investment managers were used for absolute return, five investment managers were used for private credit and eleven investment managers were used for real assets investments.

Available cash held by investment managers is swept daily into a pooled short-term investment fund managed by the custodial bank. This short-term investment fund holds short-term obligations and deposits, including U.S. treasury and agency obligations, corporate bonds, commercial paper, repurchase agreements, certificates of deposit, bankers' acceptances, time deposits, and floating-rate notes.

Likewise, cash collateral received in connection with the securities lending program in which ACERA participates is held in a separate short-term investment pool managed by State Street Global Advisors.

These two investment pools are each held in a trust fund sponsored by State Street Bank and Trust Company, the investment custodian, and the securities lending agent.

The value of the underlying instruments in these investments pools is adjusted to fair value. The fair value of ACERA's position in these investment pools is not materially different from the value of the pool shares.

Governmental Accounting Standards Board, Statement No. 72 (GASB 72), Fair Value Measurement and Application, generally requires investments to be measured at fair value, using the appropriate valuation techniques under the circumstances and for which sufficient data are available to measure the fair value. The three approaches to measuring fair value are:

1. Market Approach (actual market transactions for identical or similar items);
2. Cost Approach (the current cost to replace the service capacity of an asset); and
3. Income Approach (discounting the current value of the future cash flows).

The quality of the data (inputs) used to determine fair value can vary. Some inputs are directly or indirectly observable (independently verifiable). Other inputs are unobservable. GASB 72 establishes a three-tier hierarchy of inputs used to measure fair value consisting of:

1. Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that a government can access at the measurement date. Level 1 investments include public equity securities and other publicly traded securities such as widely held domestic and international stocks, certain derivative instruments and U.S. Treasury securities.
2. Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for an asset or liability, either directly or indirectly. These inputs can include quoted prices for similar assets or liabilities in active or inactive markets, or market-corroborated inputs. Fair values may be based on market multiples techniques and/or matrix pricing techniques. Level 2 investments include fixed or variable-income securities, commingled funds, certain derivative instruments and other assets that are valued using market information.
3. Level 3 inputs are unobservable inputs for an asset or liability. Included in this level are corporate bonds that are restricted and do not trade readily. The fair value of investments in real estate separate properties which is based on prices in a competitive market as determined by the investment manager relying on periodic appraisals is also included in Level 3 investments.

GASB 72 allows a government entity to use Net Asset Value (NAV) per share (or its equivalent) for an investment in a nongovernmental entity that does not have a readily determined fair value. Investments measured at NAV without determinable fair value are excluded from the level of fair value hierarchy. Selected additional disclosures are required for investments measured at NAV such as fair value measurement, government's unfunded commitments related to the investment type, general description of the terms and conditions upon which a government may redeem investments, and an estimate of when the redemption restriction might lapse for investments restricted from redemption. For investments in private vehicles (i.e. limited partnerships), such as those found in the real assets, private equity, private credit, absolute return, and real estate asset classes, ACERA relies on the audited financial statements, unaudited capital account statements from the partnerships, cash flows into the partnerships (i.e. capital calls), distributions from the partnerships (i.e. distributions), and appraisals. The inputs used by the general partner include some or all of the following: the original transaction price, recent private transactions in the same or similar instruments, completed or pending third-party transactions in comparable businesses, recapitalizations and other transactions across the capital structure, public market valuation multiples for similar offerings in the equity or debt capital markets, discounted cash-flow ("DCF") valuations based on projected cash flows, as well as changes in the investment's earnings before interest, taxes, depreciation and amortization, cash flows, implied yields and leverage ratios.

## Investments and Derivative Instruments Measured at Fair Value - Pension Plan

As of December 31, 2023 (Dollars in Thousands)

| Investments by Fair Value Level | Total | Fair Value Measurements Using: Quoted Prices in Active Markets for Identical Assets Level 1 | Significant Other Observable Inputs Level 2 | Significant Unobservable Inputs Level 3 |
|---|---|---|---|---|
| **Cash Equivalents** | | | | |
| Government Issues | $ 17,514 | $ - | $ 17,514 | $ - |
| STIF-Type Instruments | 172,873 | 172,873 | - | - |
| **Total Cash Equivalents** | **190,387** | **172,873** | **17,514** | **-** |
| **Fixed Income Securities** | | | | |
| Auto Loan Receivable | 14,580 | - | 14,580 | - |
| CMO | 100,878 | - | 100,878 | - |
| Convertible Bonds | 15,242 | - | 15,242 | - |
| Corporate Bonds | 608,087 | - | 608,087 | - |
| Credit Card Receivable | 5,023 | - | 5,023 | - |
| FHLMC | 69,772 | - | 69,772 | - |
| FNMA | 192,873 | - | 192,873 | - |
| GNMA I | 568 | - | 568 | - |
| GNMA II | 42,062 | - | 42,062 | - |
| Government Issues | 420,440 | 128,509 | 291,931 | - |
| Municipals | 8,682 | - | 8,682 | - |
| Mutual Funds | 79,250 | - | 79,250 | - |
| Other Asset Backed | 36,529 | - | 36,529 | - |
| **Total Fixed Income Securities** | **1,593,986** | **128,509** | **1,465,477** | **-** |
| **Equity Securities** | | | | |
| Non-U.S. Equity | 787,281 | 787,381 | (100) | - |
| Pooled Investments | 4,242,011 | 2,239,207 | 2,002,804 | - |
| U.S. Equity | 626,628 | 626,628 | - | - |
| **Total Equity Securities** | **5,655,920** | **3,653,216** | **2,002,704** | **-** |
| **Real Assets** | | | | |
| Mutual Funds | 373,477 | - | 373,477 | - |
| **Total Real Assets** | **373,477** | **-** | **373,477** | **-** |
| **Real Estate** | | | | |
| Properties | 48,282 | - | - | 48,282 |
| **Total Real Estate** | **48,282** | **-** | **-** | **48,282** |
| **Collateral from Securities Lending** | 158,812 | 158,812 | - | - |
| **Total Investments by Fair Value Level** | **8,020,864** | **$ 4,113,410** | **$ 3,859,172** | **$ 48,282** |
| **Investments Measured at Net Asset Value (NAV)** | | | | |
| Real Assets | 284,064 | | | |
| Private Equity | 1,114,713 | | | |
| Private Credit | 308,413 | | | |
| Absolute Return | 902,059 | | | |
| Real Estate | 756,421 | | | |
| **Total Investments Measured at NAV** | **3,365,670** | | | |
| **Total Investments** | **$ 11,386,534** | **$ 4,113,410** | **$ 3,859,172** | **$ 48,282** |
| **Derivative Instruments** | | | | |
| Futures | $ 8,931 | $ 8,931 | $ - | $ - |
| Forwards and Spot Contracts | 2,704 | 2,704 | - | - |
| **Total Derivative Instruments** | **$ 11,635** | **$ 11,635** | **$ -** | **$ -** |

## Investments Measured at the NAV

As of December 31, 2023 (Dollars in Thousands)

| | Fair Value | Unfunded Commitments | Redemption Frequency (If Currently Eligible) | Redemption Notice Period |
|---|---|---|---|---|
| Real Assets[1] | $ 284,064 | $ 69,180 | Not Eligible | N/A |
| Private Equity[2] | 1,114,713 | 638,051 | Not Eligible | N/A |
| Absolute Return[3] | 902,059 | 9,822 | Not Eligible, or Between Daily and Quarterly | N/A or Between 1 Day and 90 Days |
| Real Estate[4] | 756,421 | 105,320 | Not Eligible or Quarterly | N/A or up to 90 Days |
| Private Credit[5] | 308,413 | 82,980 | Not Eligible | N/A |
| **Total Investments Measured at NAV** | **$ 3,365,670** | **$ 905,353** | | |

1 Real Assets – The Real Assets portfolio consists of 12 funds which include 11 limited partnerships and 1 separately managed account. The 11 limited partnerships are commingled vehicles that invest in private infrastructure and natural resources. These limited partnerships are valued at net asset value on a quarterly basis and, due to contractual limitations, none of these vehicles are eligible for redemption but rather distribute capital proceeds over the funds' lifespans, which are up to 12 years. The one separately managed account holds shares in three commingled vehicles. These commingled vehicles invest in publicly traded infrastructure and natural resources equities, commodity futures, and total return swaps. This separately managed account is not measured at net asset value and classified as level 2 in fair value hierarchy.

2 Private Equity – The Private Equity portfolio consists of 67 funds, which invest primarily in buyout, debt-related, special situations, and venture capital opportunities. The fair value of these funds is determined using net asset value represented in the audited financial statements plus/minus the latest quarterly cash flows. These funds are not eligible for redemption but rather distribute capital proceeds over the funds' lifespans in either cash or "in-kind" shares of the funds' portfolio companies. Distributions to the funds' investors occur over the span of approximately 8 to 15 years.

3 Absolute Return – The Absolute Return portfolio consists of four funds that include a variety of commingled, liquid and illiquid idiosyncratic strategies and two custom fund of hedge funds accounts. Three of the funds are illiquid limited partnerships, which are valued at net asset value on a quarterly basis. Of the three illiquid limited partnerships, one is close to fully liquidated, one is exploring liquidity options, and one can be redeemed over 1-3 years. One of the funds is a limited liability company, which is valued daily at net asset value and is subject to daily liquidity. The two custom fund of hedge funds includes one that is a limited liability company and one that is a limited partnership. Valuations for these accounts occur monthly, and redemptions can occur quarterly.

4 Real Estate – The Real Estate portfolio consists of 18 funds and a separate building (1), which also serves as ACERA's headquarters. The Real Estate funds in the portfolio invest primarily in U.S. commercial real estate (office, industrial, retail, multi-family, and other). These funds are designed as open-end commingled funds or as limited partnerships (private equity structure). The investments that are structured as limited partnerships are not eligible for redemption but rather distribute proceeds over the funds' lifespan as distributions or return of capital. The primary objectives of the real estate portfolio are income and appreciation; distribution income is typically made on a quarterly basis throughout the lives of the funds. The fair value of these funds is determined using third-party appraisals every three years or an internal appraisal. Net asset values are typically reported one quarter in arrears, plus/minus the latest quarter's cash flows (capital calls, management fees, and distributions). The open-end commingled funds are eligible for redemption, typically, with up to 90 days' notice. These open-end commingled funds may also be subject to a withdrawal queue.

5 Private Credit – The Private Credit Portfolio is comprised of 5 Funds. The funds are illiquid limited partnerships and are valued at net asset value on a quarterly basis. Due to contractual limitations, the funds are not eligible for redemption but rather distribute capital proceeds over the funds' lifespans, which are up to nine years. Private Credit investments are typically performing senior secured, first or second lien loans secured against the assets of a company.

### Derivative Instruments

ACERA has the following types of derivative instruments: futures contracts, currency forward contracts, spot contracts, swap contracts, and warrants. A futures contract represents an agreement to purchase or sell a particular asset for a given price at a specified future date. Currency forward contracts generally serve to hedge or offset, the impact of foreign currency exchange rate fluctuations on the reported U.S. dollar fair value of investments denominated in foreign currencies. A swap is a derivative contract through which two parties exchange the cash flows or liabilities from two different financial instruments. Warrants and Rights allow the holder the right, but not the obligation, to buy or sell a security for a given price within a specified time period.

The following Investment Derivative Instruments schedule reports the fair value balances, changes in fair value, and notional amounts of derivative instruments outstanding as of and for the year ended December 31, 2023, classified by type. For financial reporting purposes, all ACERA derivative instruments are classified as investment derivative instruments.

## Investment Derivative Instruments

For Year Ended December 31, 2023 (Dollars in Thousands)

| Derivative Instruments Type | Classification | Notional Value/Shares | Fair Value | Changes in Fair Value[1] |
|---|---|---|---|---|
| Fixed Income Futures Long | Futures | $ 202,569 | $ - | $ (3,221) |
| Fixed Income Futures Short | Futures | (37,200) | - | 1,324 |
| Foreign Currency Futures Long | Futures | 3,700 | - | 133 |
| Currency Forward Contracts | Receivable/Liability[2] | 125,652 | 2,703 | (5,046) |
| Index Futures Long | Futures | 32 | - | 8,207 |
| Rights | Common Stock | - | - | (121) |
| Warrants | Common Stock | - | - | (12) |
| **Total** | | | **$ 2,703** | **$ 1,264** |

1 Changes in fair value includes realized and unrealized gains and losses on derivative instruments and are reported as Net Appreciation (Depreciation) in Fair Value of Investments on the Statements of Changes in ACERA's Fiduciary Net Position

2 Currency forward contracts are reported in Foreign Exchange Contracts, which includes spot contracts which are not derivative instruments.

## Securities Lending Activity

The Board of Retirement policies authorize ACERA to participate in a securities lending program. Securities lending transactions are short-term collateralized loans of ACERA's securities for the purpose of generating additional investment income. ACERA has a securities lending agreement in place that authorizes the securities lending agent to lend ACERA's securities to broker-dealers and banks pursuant to a loan agreement. For securities on loan, ACERA receives either cash or non-cash collateral. ACERA invests the cash collateral in a pooled short-term investment fund maintained by the securities lending agent and receives earnings on it in exchange for paying a loan rebate fee to the borrower. In the case of non-cash collateral, the borrower pays ACERA a loan premium.

For the year ended December 31, 2023, on behalf of ACERA, the securities lending agent lent ACERA's securities (government bonds, corporate stocks, corporate bonds, international equities, and international fixed income) to borrowers under the securities lending agreement and ACERA received cash (U.S. and foreign currency), securities issued or guaranteed by the United States government, and sovereign debt or irrevocable bank letters-of-credit as collateral.

ACERA did not have the ability to pledge or sell collateral securities delivered absent a borrower default (therefore, such non-cash collateral is not reported on the Statement of Fiduciary Net Position).

Borrowers were required to deliver collateral for each loan equal to:

- Loaned securities denominated in U.S. dollars or sovereign debt issued by foreign governments, with a margin of at least 102% of the fair value of the loaned securities; or
- Loaned securities not denominated in U.S. dollars, or whose primary trading market was not located in the United States, with a margin of at least 105% of the fair value of the loaned securities.

Moreover, borrowers were required to maintain the designated margin percentage of collateral on a daily basis.

ACERA did not impose any restrictions for the year ended December 31, 2023, on the amount of the loans that the securities lending agent made on its behalf. In the event the borrower fails to return the loaned securities, the securities lending agent indemnifies ACERA by agreeing to purchase replacement securities. If the collateral is inadequate to replace the securities lent, the securities lending agent supplements the amount of cash collateral. If the borrower fails to pay ACERA for any income distributions on loaned securities, the securities lending agent will also supplement the income amount due to ACERA. There were no losses during the year ended December 31, 2023, resulting from a default of the borrowers or the securities lending agent.

For the year ended December 31, 2023, ACERA and the borrowers maintained the right to terminate securities lending transactions upon notice. The cash collateral received on each loan was invested, together with the cash collateral of other qualified tax-exempt plan lenders in a collective investment fund comprised of a liquidity pool. As of December 31, 2023, the Quality D Short–Term Investment fund liquidity pool had an average duration of 24.56 days and an average weighted final maturity of 108.91 days for U.S. dollars collateral. For the year ended December 31, 2023, ACERA had no credit risk exposure to borrowers because, for each borrower, the value of borrower collateral held exceeded the value of the securities on loan to the borrower.

As of December 31, 2023, ACERA had securities on loan with a total fair value of $236.67 million; however, the fair value of collateral held against the loaned securities was $242.97 million which is more than the total fair value of loaned securities by $6.30 million.

## Deposit, Investment, and Derivative Instrument Risks

GASB Statements No. 40 (GASB 40) and No. 53 (GASB 53) require the disclosure of specific risks that apply to ACERA's deposits, investments, and derivative instruments. They identify the following risks:

- Custodial Credit Risk—Deposits and Investments;
- Concentration of Credit Risk;
- Credit Risk—Investments and Derivative Instruments;
- Interest Rate Risk;
- Fair Value Highly Sensitive to Changes in Interest Rates; and,
- Foreign Currency Risk

## Investment Policies

GASB 40 requires the disclosure of deposit or investment policies (or the lack thereof) that relate to investment and custodial risks.

ACERA has chosen to manage the investment risks described by GASB 40 and GASB 53 by contractually requiring each portfolio investment manager to abide by restrictive investment guidelines specifically tailored to that individual manager rather than adopting across-the-board investment policies with respect to these investment risks. The guidelines stipulate the investment style, performance objective, performance benchmarks, and portfolio characteristics.

For example, in the case of foreign currency risk, the policy guidelines for the U.S. dollars equity portfolios differ from those for the non-U.S. dollars equity portfolios. Likewise, in the case of credit risk, the guidelines for one fixed income manager stipulate a minimum acceptable credit rating for each debt instrument while the guidelines for a different fixed income portfolio merely require that the average credit ratings for a certain fair value percentage of the portfolio meet a minimum requirement.

Each separate account manager is likewise subject to a "manager standard of care" that establishes a fiduciary relationship requiring the manager to act prudently and solely in the best interest of ACERA.

Separately, ACERA's guidelines also require each manager's investment return performance to compare favorably with the performance of the relevant passive market index such as the Barclays Capital Aggregate Bond Index.

ACERA's investment staff continually monitors all investment managers for compliance with the respective guidelines.

## Custodial Credit Risk—Deposits

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

By necessity, ACERA maintains operational cash deposits to support day-to-day cash management requirements. As of December 31, 2023, cash held with a financial institution in a pooled money market fund amounted to $7.08 million, of which $0.25 million was insured and $6.83 million was uninsured and uncollateralized subject to custodial credit risk.

### Custodial Credit Risk—Investments

The custodial credit risk for investments is the risk that, in the event of the failure of a counterparty to a transaction, ACERA will not be able to recover the value of investment securities that are in the possession of an outside party. The individual investment guidelines for each investment manager require that managed investments be held and maintained with the master custodian in the name of ACERA. The master custodian may rely on sub-custodians. The custodial requirement does not apply to real estate investments, investments in commingled pools, private equity, absolute return, private credit and real assets. As of December 31, 2023, ACERA had no investments that were exposed to custodial credit risk.

### Custodial Credit Risk—Derivative Instruments

ACERA's investments include collateral associated with derivative instruments. As of December 31, 2023, net collateral for derivative instruments was $2.29 million. Each account was uninsured and uncollateralized, and subject to custodial credit risk.

### Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributed to the magnitude of ACERA's investment in a single issuer of securities. The individual investment guidelines for each fixed income manager restrict concentrations greater than 5% in the securities of any one issuer (excluding direct obligations of the U.S. and/or eligible foreign governments, and those explicitly guaranteed by the U.S. and/or eligible foreign governments). As of December 31, 2023, ACERA had no investments in a single issuer that equaled or exceeded 5% of the fiduciary net position.

### Credit Risk—Investments

Credit risk is the risk that the issuer of a debt security or other counterparty to an investment will not fulfill its obligations. The individual investment guidelines for each fixed income investment manager describe applicable restrictions on credit risk. The credit risk restrictions by investment portfolio are as follows:

The credit quality ratings of a security, (e.g., from Moody's or S&P) give an indication of the degree of credit risk for that security.

The Credit Risk Analysis schedule on page 53 discloses credit ratings of ACERA's debt investments by type and for each external investment pool as of December 31, 2023.

## Credit Risk Analysis

As of December 31, 2023 (Dollars in Thousands)

| | Adjusted Moody's Credit Rating[1] | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Debt Investments By Type** | **Total** | **Aaa** | **Aa** | **A** | **Baa** | **Ba** | **B** | **Caa** | **Ca and Below** | **Not Rated** |
| Collateralized Mortgage Obligations | $ 100,878 | $ 82,456 | $ 553 | $ 1,179 | $ 346 | $ 477 | $ 1,801 | $ 525 | $ - | $ 13,541 |
| Convertible Bonds | 15,242 | - | - | - | 2,452 | - | - | 3,877 | - | 8,913 |
| Corporate Bonds | 608,087 | - | 1,786 | 80,478 | 420,562 | 65,424 | 31,205 | 7,140 | 283 | 1,209 |
| Federal Home Loan Mortgage Corp.[2] | 69,773 | - | - | - | - | - | - | - | - | 69,773 |
| Federal National Mortgage Assn.[2] | 192,873 | - | - | - | - | - | - | - | - | 192,873 |
| Government National Mortgage Assn. I, II[2] | 42,629 | - | - | - | - | - | - | - | - | 42,629 |
| Government Issues[3] | 420,440 | 363,126 | 9,519 | - | 13,804 | 5,127 | - | - | - | 28,864 |
| Municipal | 8,682 | 6,223 | 266 | 2,193 | - | - | - | - | - | - |
| Other Asset Backed Securities | 56,132 | 46,711 | - | 241 | 3,330 | - | - | 130 | 2,307 | 3,413 |
| **Subtotal Debt Investments** | **1,514,736** | **498,516** | **12,124** | **84,091** | **440,494** | **71,028** | **33,006** | **11,672** | **2,590** | **361,215** |
| **Securities Lending Cash Collateral Fund** | | | | | | | | | | |
| Liquidity Pool[4] | 158,870 | - | - | - | - | - | - | - | - | 158,870 |
| Master Custodian Short-Term Investment Fund[4] | 172,873 | - | - | - | - | - | - | - | - | 172,873 |
| **Subtotal External Investment Pools** | **331,743** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **331,743** |
| **Total** | **$1,846,479** | **$498,516** | **$ 12,124** | **$ 84,091** | **$ 440,494** | **$ 71,028** | **$ 33,006** | **$11,672** | **$ 2,590** | **$692,958** |

1 Adjusted Moody's Credit Rating: This schedule displays the fair value of investments by credit rating in increasing magnitude of risk. Investments are classified by Moody's credit rating, or by the Moody's rating that corresponds to the Standard & Poor's (S&P) credit rating if the investment has a S&P rating but not a Moody's rating. Also whenever both ratings for an investment exist and the S&P rating for the investment indicates a greater degree of risk than the Moody's rating, then the investment's Moody's credit rating is adjusted, solely for the purpose of this disclosure, to the Moody's rating corresponding to the greater degree of risk.

2 The investments in the following debt instruments —i.e., Federal Home Loan Mortgage Corp., Federal National Mortgage Assn., and Government National Mortgage Assn., that are Not Rated are implicitly guaranteed by the U.S. Government.

3 In Government Issues, the domestic investments that are Not Rated are guaranteed by the U.S. Government and the foreign investments that are Not Rated are guaranteed by the foreign governments issuing the debt.

4 The external investment pools are not rated.

### Credit Risk—Derivative Instruments

ACERA is exposed to credit risk on investment derivative instruments that are traded over the counter and are reported in asset positions. Derivative instruments exposed to credit risk include currency forward contracts, and synthetic futures (which are included in futures contracts). To minimize credit risk exposure, ACERA's investment managers continually monitor credit ratings of counterparties. Should there be a counterparty failure, ACERA would be exposed to the loss of the fair value of derivative instruments that are in asset positions and any collateral provided to the counterparty, net of the effect of applicable netting arrangements. ACERA has no general investment policy with respect to netting arrangements or collateral requirements. Netting arrangements legally provide ACERA with a right of set-off in the events of bankruptcy or default by the counterparty. ACERA's investment managers may have collateral posting provisions associated with currency forward contracts. In the event of counterparty failure, ACERA would be exposed to loss of collateral provided to the counterparty. Collateral provided by the counterparty to ACERA reduces its credit risk exposure. The collateral associated with investment derivative instruments is disclosed on page 52 under Custodial Credit Risk—Derivative Instruments.

The following Credit Risk—Derivative Instruments schedule discloses the counterparty credit ratings of ACERA's investment derivative instruments in asset positions by type, as of December 31, 2023. These amounts represent the maximum loss that would be recognized if all counterparties fail to perform as contracted, without respect to any collateral or other security, or netting arrangement.

### Credit Risk Analysis – Investment Derivative Instruments Subject to Credit Risk

As of December 31, 2023 (Dollars in Thousands)

| Adjusted Moody's Credit Rating[1] | Fair Value | % |
|---|---|---|
| A | $ 3,459 | 100% |
| **Subtotal Derivative in Asset Position** | **3,459** | **100%** |
| Derivative in Liability Position | (756) | |
| **Total Derivative Instruments in Asset/(Liability) Position** | **$ 2,703** | |

1 See footnote 1 on page 53.

As of December 31, 2023, the $3.46 million maximum exposure of derivative instruments credit risk was reduced by ($0.76) million of liabilities included in netting arrangements, resulting in a net exposure to credit risk of $2.70 million (rounded).

## Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. For example, interest rate risk affects valuations based on cash flows for bonds, dividend discount on corporate earnings, and cost of capital for alternatives private placements.

ACERA has investments in three fixed income portfolios containing individual debt securities as well as investments in external investment pools containing debt securities. All of these investments are subject to interest rate risk. ACERA has no general policy on interest rate risk for the fixed income portfolios or for the investments in external pools. ACERA manages interest rate risk for the three fixed-income portfolios by setting limits on portfolio duration for each portfolio. The duration restrictions by investment portfolio are as follows:

- Baird Advisors: match the Bloomberg US Aggregate Index (fka Lehman Brothers Aggregate Bond Index) duration.
- Loomis Sayles & Company: Bloomberg Baa Corporate Total Return Index (fka Barclays Baa Credit Index) duration +/- 4 years.
- Brandywine Global Investment Management: 1 – 10 years.

The following Interest Rate Risk Analysis—Duration schedule discloses the duration of ACERA's debt investments by type and the duration of each of the external investment pools of debt securities. Duration is a measure of a debt investment's exposure to fair value changes arising from changing interest rates. It uses the present values of cash flows, weighted for those cash flows as a percentage of the investment's full price. The Master Custodian Short- Term Investment Fund had an average weighted maturity of 44 days as of December 31, 2023.

### Interest Rate Risk Analysis – Duration

As of December 31, 2023 (Dollars in Thousands)

| Debt Investments by Type | Fair Value | Duration in Years |
|---|---|---|
| Collateralized Mortgage Obligations | $ 100,878 | 3.3 |
| Convertible Bonds | 15,242 | 2.5 |
| Corporate Bonds | 608,087 | 5.4 |
| Federal Home Loan Mortgage Corp. | 69,773 | 5.2 |
| Federal National Mortgage Assn. | 192,873 | 5.1 |
| Government National Mortgage Assn. I, II | 42,629 | 4.9 |
| Government Issues | 420,440 | 8.9 |
| Municipal Bonds | 8,682 | 7.5 |
| Other Asset Backed Securities | 56,132 | 2.9 |
| **Total of Debt Investments** | **$ 1,514,736** | |
| **External Investment Pools of Debt Securities** | **Fair Value** | **Duration** |
| Securities Lending Cash Collateral Fund | | |
| Liquidity Pool | $ 158,870 | 25 days |
| Master Custodian Short-Term Investment Fund | 172,873 | - |
| **Total External Investment Pools** | **$ 331,743** | |

## Fair Value Highly Sensitive to Changes in Interest Rates

The Interest Rate Risk Analysis table below discloses the degree to which ACERA's investments are sensitive to interest rate changes due simply to the remaining term to maturity. In contrast, ACERA's investments with fair values that are highly sensitive to interest rates due to other factors are disclosed on the Interest Rate Risk Analysis - Highly Sensitive schedule below. ACERA has no general investment policy with respect to investments with fair values that are highly sensitive to changes in interest rates.

### Interest Rate Risk Analysis – Highly Sensitive

**Investment with Fair Values Highly Sensitive to Changes in Interest Rates**

As of December 31, 2023 (Dollars in Thousands)

| Investment Type | Investment Description | Interest Rates | Fair Value |
|---|---|---|---|
| Collateralized Mortgage Obligations | Various debt related Securities | 2.24% to 9.09% | $ 4,765 |
| Corporate Bonds | Various debt related Securities | 3.10% to 9.02% | 22,075 |
| Convertible Bonds | Sunac China Holdings LTD | 1.00% | 14 |
| Government Issues | Various debt related Securities | 1.25% to 8.00% | 28,062 |
| Other Asset Backed Securities | Various debt related Securities | 2.24% to 4.59% | 1,978 |

## Foreign Currency Risk

Foreign currency risk is the risk that changes in foreign exchange rates will adversely affect the fair value of an investment or deposit. ACERA has no general investment policy with respect to foreign currency risk.

### *Foreign Currency Risk—Investments*

The Foreign Currency Risk Analysis schedule on page 57 shows the fair value of investments that are exposed to this risk by currency denomination and investment type. This provides an indication of the magnitude of foreign currency risk for each currency.

### *Foreign Currency Risk—Swap and Futures Contracts*

Swap and futures contracts are derivative instruments. A swap is a derivative contract through which two parties exchange the cash flows or liabilities from two different financial instruments. A futures contract represents an agreement to purchase or sell a particular asset for a given price at a specified future date.

For those swap and futures contracts which are dollar-denominated securities issued by foreign countries, there is an exposure to a foreign currency risk.

### *Foreign Currency Risk—Foreign Exchange Contracts*

Foreign exchange contracts are subject to foreign currency risk. Foreign exchange contracts include currency forward contracts and spot contracts. Currency forward contracts are derivative instruments and are described in the derivative instruments section of this note. Spot contracts are generally used when ACERA is required to make or receive payments in a foreign currency. Spot contracts are agreements to buy or sell a certain amount of foreign currency at the current market rate, for settlement in two business days.

The dollar impact that foreign exchange contracts have on foreign currency risk is equal to the foreign currency settlement amounts translated in the same manner as the investments (i.e. spot exchange rate at the end of the year). The impact appears in the column labeled Foreign Currency on the schedule on page 57. The Net Exposure column of the schedule indicates the net foreign currency risk, i.e., the gross risk associated with the investments less the risk hedged by the outstanding foreign exchange contracts.

## Foreign Currency Risk Analysis

Fair Value of Investments Exposed to Foreign Currency Risk by Currency

As of December 31, 2023 (Dollars in Thousands)

| Trade Currency Name | Investment Type | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Common Stock | Corporate Bonds | Depository Receipts | Foreign Currency | Government Issues | Lmtd Partnership Unts | Preferred Stock | Currency Swap | Real Estate Inv. Trst | Net Exposure |
| Australian Dollar | $ 8,752 | $ - | $ 89 | $ 26 | $ - | $ - | $ - | $ 505 | $ - | $ 9,372 |
| Brazilian Real | 245 | - | - | 24 | 3,186 | - | 287 | (48) | - | 3,694 |
| Canadian Dollar | 31,549 | - | - | 106 | - | - | - | - | 407 | 32,062 |
| Chilean Peso | - | - | - | - | - | - | - | 96 | - | 96 |
| Danish Krone | 43,896 | - | - | 161 | - | - | - | - | - | 44,057 |
| Euro Currency | 262,372 | 1,328 | 2,138 | 1,426 | - | 44,877 | 2,485 | 779 | - | 315,405 |
| Hong Kong Dollar | 18,877 | - | - | 51 | - | - | - | - | 1,159 | 20,087 |
| Hungarian Forint | 91 | - | - | - | - | - | - | - | - | 91 |
| Indian Rupee | - | - | - | - | - | - | - | 13 | - | 13 |
| Indonesian Rupiah | 105 | - | - | - | 1,339 | - | - | - | - | 1,444 |
| Japanese Yen | 158,784 | - | - | 76 | - | - | - | 886 | 185 | 159,931 |
| Malaysian Ringgit | - | - | - | 1 | - | - | - | - | - | 1 |
| Mexican Peso | 65 | - | - | - | 11,231 | - | - | (522) | - | 10,774 |
| New Israeli Sheqel | 6,417 | - | - | 15 | - | - | - | - | - | 6,432 |
| New Taiwan Dollar | 262 | - | - | 11 | - | - | - | - | - | 273 |
| New Zealand Dollar | 518 | - | - | 11 | 1,230 | - | - | 100 | - | 1,859 |
| Norwegian Krone | 9,291 | - | - | 12 | - | - | - | 911 | - | 10,214 |
| Philippine Peso | - | - | - | 2 | - | - | - | - | - | 2 |
| Polish Zloty | 122 | - | - | - | - | - | - | - | - | 122 |
| Pound Sterling | 102,662 | - | - | 98 | 9,519 | - | - | (4) | 123 | 112,398 |
| Russian Ruble | 3,234 | - | - | - | - | - | - | - | - | 3,234 |
| Singapore Dollar | 14,681 | - | - | 383 | - | - | - | - | - | 15,064 |
| South African Rand | 168 | - | - | 29 | 2,931 | - | - | (14) | - | 3,114 |
| South Korean Won | 737 | - | - | 42 | - | - | - | - | - | 779 |
| Swedish Krona | 32,765 | - | - | 168 | - | - | - | - | - | 32,933 |
| Swiss Franc | 64,295 | - | - | 533 | - | - | - | - | - | 64,828 |
| UAE Dirham | 188 | - | - | - | - | - | - | - | - | 188 |
| Uruguayan Peso | - | - | - | - | 1,234 | - | - | - | - | 1,234 |
| Yuan Renminbi | 156 | - | - | - | - | - | - | - | - | 156 |
| **Grand Total** | **$760,232** | **$ 1,328** | **$ 2,227** | **$3,175** | **$30,670** | **$44,877** | **$ 2,772** | **$2,702** | **$ 1,874** | **$ 849,857** |

## Real Estate

### Real Estate Investment Income – Separate Properties

For the Year Ended December 31, 2023
(Dollars in Thousands)

| | | |
|---|---|---|
| **Real Estate Investment Income** | $ | 4,640 |
| **Less Operating Expenses** | | (2,709) |
| **Real Estate Net Income** | **$** | **1,931** |

There is no outstanding real estate related debt associated with the separate properties as of December 31, 2023.

## 9. Capital Assets

ACERA's capital assets include equipment and furniture, right-to-use leased office equipment, right-to-use software subscriptions, electronic document management system, information systems, leasehold improvements, and construction-in-progress. See the following table for details.

### Capital Assets and Accumulated Depreciation/Amortization

For the Year Ended December 31, 2023 (Dollars in Thousands)

| | January 1, 2023 | Additions | Deletions / Transfers | December 31, 2023 |
|---|---|---|---|---|
| **CAPITAL ASSETS - DEPRECIABLE** | | | | |
| Equipment and Furniture | $ 3,108 | $ 15 | $ - | $ 3,123 |
| Right-to-Use Leased Office Equipment | 213 | 149 | (205) | 157 |
| Right-to-Use Subscription-Based Software | - | 224 | - | 224 |
| Electronic Document Management System | 4,172 | - | - | 4,172 |
| Information Systems | 10,484 | - | - | 10,484 |
| Leasehold Improvements | 2,585 | - | - | 2,585 |
| **Subtotal** | **20,562** | **388** | **(205)** | **20,745** |
| **CAPITAL ASSETS - NON DEPRECIABLE** | | | | |
| Construction-in-Progress | 6,425 | 2,077 | - | 8,502 |
| **Total Capital Assets (Cost)** | **26,987** | **2,465** | **(205)** | **29,247** |
| **ACCUMULATED DEPRECIATION AND AMORTIZATION** | | | | |
| Equipment and Furniture | (3,077) | (12) | - | (3,089) |
| Right-to-Use Leased Office Equipment | (172) | 166 | - | (6) |
| Right-to-Use Subscription-Based Software | - | - | (132) | (132) |
| Electronic Document Management System | (4,168) | (2) | - | (4,170) |
| Information Systems | (10,471) | (10) | - | (10,481) |
| Leasehold Improvements | (1,515) | (102) | - | (1,617) |
| **Total Accumulated Depreciation and Amortization** | **(19,403)** | **40** | **(132)** | **(19,495)** |
| **CAPITAL ASSETS - NET OF ACCUMULATED DEPRECIATION AND AMORTIZATION** | **$ 7,584** | **$ 2,505** | **$ (337)** | **$ 9,752** |

Separate disclosures have been provided for leases that meet the requirements of GASB 87 and those that do not fall under the provisions of GASB 87.

ACERA has two leases that fall under GASB 87 and the details of these leases are as follows:

ACERA entered into a five-year lease for photocopiers and printers on December 1, 2023. The payments are due monthly in arrears. The monthly payment of $4,258 included a lease portion of $3,246 and a non-lease/ service portion of $1,012 at the beginning of a lease. The lessor will increase the rental amount by 3.00% after year one of the lease term. ACERA estimated the same percentage increase over the lease term in the lease liability calculation.

ACERA entered into a five-year lease for a postage machine on August 1, 2020. The payments are due quarterly in advance. The quarterly payment of $944 included a lease portion of $473 and a non-lease/ service portion of $471 at the beginning of a lease. As per the lease agreement, there will not be any increase in lease payments except for taxes. ACERA estimated an annual interest rate of 10.76% was charged on this lease based on the total market value of leased assets provided by the lessor. Currently, ACERA does not plan to extend this lease after the completion of the lease term on July 31, 2025.

No variable and other payments were recognized during the year which was not previously included in lease liability. There are no outstanding lease commitments and no impairment losses were recognized.

### Future Lease Payment Maturity Schedule under GASB 87

As of December 31, 2023 (Dollars in Thousands)

| Year | Principal | Interest | Total Payment |
|---|---|---|---|
| 2024 | $ 22 | $ 19 | $ 41 |
| 2025 | 25 | 16 | 41 |
| 2026 | 30 | 12 | 42 |
| 2027 | 35 | 8 | 43 |
| 2028 | 38 | 3 | 41 |
| Total | **$ 150** | **$ 58** | **$ 208** |

ACERA implemented GASB 96 for subscription-based information technology arrangements (SBITAs) in 2023. There are two software license subscriptions that fall under GASB 96 and the details of these subscription-based are as follows:

ACERA entered into a three-year license subscription with SoftwareOne for Microsoft software on January 1, 2023. The payments are due annually in advance. The annual payment of $51,208 included a lease portion of $47,474 and a non- lease/ service portion of $3,734 at the beginning of subscription. There is no annual increase in payment during the subscription term, ending December 2025. ACERA used risk-free borrowing rate of 4.47% to calculate the subscription liability.

ACERA entered into a three-year license subscription for a budget software on February 28, 2021. The three-year contract payment of $97,135 included a lease portion of $93,505 and a non-lease/service portion of $3,630 was paid in full at the beginning of the subscription. There is no liability for the subscription period. Currently, ACERA plans to sign a new contract after the completion of the subscription term on February 27, 2024.

### Future Subscription Payment Maturity Schedule under GASB 96

As of December 31, 2023 (Dollars in Thousands)

| Year | Principal | Interest | Total Payment |
|---|---|---|---|
| 2024 | $ 43 | $ 4 | $ 47 |
| 2025 | 42 | 6 | 48 |
| 2026 | - | - | - |
| 2027 | - | - | - |
| Total | **$ 85** | **$ 10** | **$ 95** |

## 10. Leases

ACERA leases office space from Oakland 14th St. Office, a title holding corporation formed by ACERA. The lease term expires on December 31, 2028. Under the terms of the lease agreement, ACERA's base rent is abated. However, ACERA is required to pay its proportionate share of building operating expenses as defined in the lease.

ACERA's share of these operating expenses was approximately $33,824 for the year ended December 31, 2023.

## 11. Administration Expense

ACERA's Board of Retirement annually adopts an operating expense budget covering expenses to be incurred in the following fiscal year. The operating budget includes the administration expense budget which is subject to the statutory limit based on exclusions specified in the 1937 Act.

ACERA has adopted the provisions of the 1937 Act which allows ACERA to exclude actuarial, investment, legal, business continuity and technology direct costs from administration expenses. Since investment related expenses were offset against investment income, the remaining exclusions totaled $2.9 million for 2023.

ACERA also conforms to the provision of the 1937 Act that limits the administration cap to 0.21 percent of the Accrued Actuarial Liability (AAL). ACERA uses the AAL as of December 31 of the year in which the budget is adopted for this purpose.

A schedule of Administration Expense is included in the Supplemental Schedules on page 68.

### Application of Statutory Limit on Administration Expense

For the Year Ended December 31, 2023 (Dollars in Thousands)

| | | |
|---|---|---|
| Total Actuarial Accrued Liability as of December 31, 2022 | $ | 12,763,881 |
| Limit: Maximum Allowable fraction of Total Actuarial Accrued Liability (0.21%) times Total Actuarial Accrued Liability | $ | 26,804 |
| Portion of Administrative Expenses for the Fiscal Year subject to the Statutory Limit | | 14,646 |
| Excess of Limit over Portion of Administration Expense Subject to Limit | $ | 12,158 |
| Portion of Administration Expense Subject to Limit as a Percentage of Actuarial Accrued Liability | | 0.11% |

## 12. Related Party Transactions

By necessity, ACERA is involved in various business transactions with the County, the primary plan sponsor. These include reimbursement to the County for the salary and benefits of ACERA staff members paid through the County and reimbursement to the Alameda County Human Resources Department for personnel consulting services and for administering ACERA's retired members' health benefits. Also, under the Board of Retirement policy, ACERA reimburses the County for a portion of the salary and benefits of each County employee elected to the Board of Retirement. Lastly, ACERA reimburses the County for the cost of services provided in the following areas: insurance/risk management, information technology, and telecommunications.

Also, ACERA leases office space from Oakland 14th St. Office, a title holding company controlled by ACERA. Note 10—Leases describes this arrangement.

### Related Party Transactions

For the Year Ended December 31, 2023 (Dollars in Thousands)

| | | |
|---|---|---|
| Reimbursed Cost of ACERA | | |
| Staff Members | $ | 15,620 |
| Reimbursed Costs of County Services | | 587 |
| State Mandated Benefit Replacement Program IRC 415(m) | | 586 |
| County Personnel Services | | 77 |
| Partial Salary/Benefits Reimbursement for Elected Board Members | | 361 |
| **Total** | **$** | **17,231** |

## 13. Subsequent Events

Management has evaluated subsequent events through June 26, 2024, the date the financial statements were issued, and has determined that no adjustments are necessary to the amounts reported in the accompanying financial statements.

# *Required Supplementary Information (RSI)*

## Pension Plan and Non-OPEB

### Schedule of Changes in Net Pension Liability and Related Ratios

For the Years Ended December 31 (Dollars in Thousands)

| | 2023 | 2022 | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Total Pension Liability (TPL)** | | | | | | | | | | |
| Service Cost[1] | $ 257,507 | $ 245,467 | $ 235,099 | $ 221,824 | $ 215,625 | $ 209,890 | $ 187,409 | $ 175,642 | $ 172,585 | $ 167,120 |
| Interest | 800,570 | 767,151 | 741,739 | 718,927 | 688,655 | 659,592 | 636,556 | 603,168 | 579,500 | 542,377 |
| Changes of benefit terms | 13,985 | - | - | - | - | - | - | - | - | - |
| Differences between expected and actual experience | 123,460 | 58,261 | (50,360) | 33,007 | 24,548 | 13,710 | 17,516 | (68,176) | (31,965) | (85,379) |
| Changes of assumptions | (103,670) | - | - | 236,513 | - | - | 316,728 | 150,677 | - | 431,863 |
| Benefit payments, including refunds of member contributions | (619,679) | (591,337) | (556,269) | (530,763) | (504,185) | (471,943) | (445,288) | (422,223) | (401,298) | (378,689) |
| **Net Change in Total Pension Liability** | **472,173** | **479,542** | **370,209** | **679,508** | **424,643** | **411,249** | **712,921** | **439,088** | **318,822** | **677,292** |
| **Total Pension Liability - Beginning** | **11,489,051** | **11,009,509** | **10,639,300** | **9,959,792** | **9,535,149** | **9,123,900** | **8,410,979** | **7,971,891** | **7,653,069** | **6,975,777** |
| **Total Pension Liability - Ending (a)** | **$ 11,961,224** | **$ 11,489,051** | **$ 11,009,509** | **$ 10,639,300** | **$ 9,959,792** | **$ 9,535,149** | **$ 9,123,900** | **$ 8,410,979** | **$ 7,971,891** | **$ 7,653,069** |
| Plan's Fiduciary Net Position (FNP) | | | | | | | | | | |
| Contributions - employer[2] | $ 288,640 | $ 281,647 | $ 1,116,576 | $ 309,753 | $ 298,527 | $ 269,684 | $ 247,064 | $ 241,729 | $ 224,607 | $ 213,255 |
| Contributions - member | 126,472 | 120,673 | 111,091 | 106,104 | 103,117 | 94,736 | 89,326 | 85,736 | 82,949 | 79,714 |
| Net investment income | 1,126,919 | (755,045) | 1,115,980 | 755,501 | 1,165,767 | (216,308) | 1,065,908 | 423,718 | 49,021 | 318,245 |
| Benefit payments, including refunds of member contributions | (619,679) | (591,337) | (556,269) | (530,763) | (504,185) | (471,943) | (445,288) | (422,223) | (401,298) | (378,689) |
| Administrative expense | (15,865) | (15,369) | (15,040) | (14,810) | (15,274) | (15,246) | (14,571) | (14,618) | (14,262) | (13,855) |
| Other[3] | 54,206 | - | - | - | - | - | - | - | - | - |
| **Net Change in Plan's Fiduciary Net Position** | **960,693** | **(959,431)** | **1,772,338** | **625,785** | **1,047,952** | **(339,077)** | **942,439** | **314,342** | **(58,983)** | **218,670** |
| **Plan's Fiduciary Net Position[4] - Beginning** | **9,257,791** | **10,217,222** | **8,444,884** | **7,819,099** | **6,771,147** | **7,110,224** | **6,167,785** | **5,853,443** | **5,912,426** | **5,693,756** |
| **Plan's Fiduciary Net Position[4] - Ending (b)** | **$ 10,218,484** | **$ 9,257,791** | **$ 10,217,222** | **$ 8,444,884** | **$ 7,819,099** | **$ 6,771,147** | **$ 7,110,224** | **$ 6,167,785** | **$ 5,853,443** | **$ 5,912,426** |
| **Net Pension Liability (NPL) - Ending (a) - (b)** | **$ 1,742,740** | **$ 2,231,260** | **$ 792,287** | **$ 2,194,416** | **$ 2,140,693** | **$ 2,764,002** | **$ 2,013,676** | **$ 2,243,194** | **$ 2,118,448** | **$ 1,740,643** |
| **FNP as a Percentage of the TPL** | **85.43%** | **80.58%** | **92.80%** | **79.37%** | **78.51%** | **71.01%** | **77.93%** | **73.33%** | **73.43%** | **77.26%** |
| **Covered Payroll[5]** | **$ 1,251,821** | **$ 1,198,970** | **$ 1,153,918** | **$ 1,111,849** | **$ 1,081,587** | **$ 1,046,034** | **$ 995,178** | **$ 947,568** | **$ 945,858[6]** | **$ 886,925** |
| **NPL as a Percentage of Covered Payroll** | **139.22%** | **186.10%** | **68.66%** | **197.37%** | **197.92%** | **264.24%** | **202.34%** | **236.73%** | **223.97%** | **196.26%** |

1 1 The service cost is based on the previous year's valuation, meaning the December 31, 2023 measurement date values are based on the valuation as of December 31, 2022.

2 Employer contributions are on a net basis after (i) considering the total cash contributions made by the employers, (ii) reducing by the employer contributions made to the 401(h) account, and (iii) increasing by the amount of transfer from the SRBR to the employers' advance reserve for employer contribution made to the 401(h) account in (ii). Also, the County and LARPD made voluntary contributions of $800 million (County Safety) and $12.61 million (LARPD General), respectively in 2021.

3 A $54.2 million transfer from the OPEB SRBR to the non-OPEB SRBR was made by the Board of Retirement in 2023 to equalize the sufficiency periods of the OPEB and non-OPEB SRBR benefits.

4 For 2023, the Plan's Fiduciary Net Position amount shown ($10,218,484) includes the net fair value of assets ($11,278,821) less OPEB-related SRBR assets ($1,060,337). The OPEB-related SRBR assets include $1,070,992 in the SRBR-OPEB reserve (after reducing the reserve by the $4,116 SRBR implicit subsidy transfer), and $10,117 in the 401(h) reserve, minus a proportionate share of the deferred market losses commensurate with the size of the OPEB to total SRBR and 401(h) reserve to valuation and 401(h) reserves ($20,772). For 2022, the Plan's Fiduciary Net Position amount shown ($9,257,791) includes the net fair value of assets ($10,298,512) less OPEB-related SRBR assets ($1,040,721). The OPEB-related SRBR assets include $1,105,726 in the SRBR-OPEB reserve (after reducing the reserve by the $7,981 SRBR implicit subsidy transfer), and $8,979 in the 401(h) reserve, minus a proportionate share of the deferred market losses commensurate with the size of the OPEB to total SRBR and 401(h) reserve to valuation and 401(h) reserves ($73,984).

5 For years ended December 31, 2017 and later, covered payroll represents Compensation Earnable and Pensionable Compensation and is defined as the payroll on which contributions to the pension plan are based. For the years ended before December 31, 2017, covered payroll was referred to as covered-employee payroll and only Compensation Earnable and Pensionable Compensation that would possibly go into the determination of retirement benefits are included.

6 The covered payroll for the year 2015 includes 1 additional pay period.

## Schedule of Employer Contributions

Last Ten Fiscal Years (Dollars in Thousands)

| Year Ended December 31 | Actuarially Determined Contributions (ADC) | Contributions in Relation to ADC | Contribution Deficiency (Excess) | Covered Payroll[1] | Contributions as a Percentage of Covered Payroll |
|---|---|---|---|---|---|
| 2014 | $ 213,255 | $ 213,255 | $ - | $ 886,925 | 24.04% |
| 2015 | 224,607 | 224,607 | - | 945,858[2] | 23.75% |
| 2016 | 241,729 | 241,729 | - | 947,568 | 25.51% |
| 2017 | 247,064 | 247,064 | - | 995,178 | 24.83% |
| 2018 | 269,684 | 269,684 | - | 1,046,034 | 25.78% |
| 2019 | 298,527 | 298,527 | - | 1,081,587 | 27.60% |
| 2020 | 309,759 | 309,753 | 6[3] | 1,111,849 | 27.86% |
| 2021 | 303,965 | 1,116,576 | (812,611)[4] | 1,153,918 | 96.76%[5] |
| 2022 | 281,647 | 281,647 | - | 1,198,970 | 23.49% |
| 2023 | 288,640 | 288,640 | - | 1,251,821 | 23.06% |

1 For years ended December 31, 2017 and later, covered employee payroll represents Compensation Earnable and Pensionable Compensation and is defined as the payroll on which contributions to the pension plan are based. For the years ended before December 31, 2017, covered payroll was referred to as covered-employee payroll and only Compensation Earnable and Pensionable Compensation that would possibly go into the determination of retirement benefits are included.

2 The covered payroll for the year 2015 includes 1 additional pay period.

3 Actuarially Determined Contribution for the Alameda County Office of Education of $78 less actual contribution paid of $72.

4 Voluntary County Safety contributions of $800.0 million and LARPD General contributions of $12.6 million to reduce their UAAL contribution rates.

5 Contributions as a percentage of covered payroll is 26.34% if excluding the voluntary County Safety and LARPD General contributions.

## Schedule of Investment Returns

Last Ten Fiscal Years (As of December 31)

| | 2023 | 2022 | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 |
|---|---|---|---|---|---|---|---|---|---|---|
| Annual Money-Weighted Rate of Return, net of Investment Expense | 12.30% | -11.01% | 16.12% | 11.70% | 18.10% | -4.44% | 19.02% | 7.16% | -0.10% | 4.27% |

# Postemployment Medical Benefits

## Schedule of Changes in Net OPEB Liability and Related Ratios

For the Years Ended December 31 (Dollars in Thousands)

| | 2023 | 2022 | 2021 | 2020 | 2019 | 2018 | 2017 |
|---|---|---|---|---|---|---|---|
| **Total OPEB Liability**[1] | | | | | | | |
| Service Cost[2] | $ 36,611 | $ 33,756 | $ 33,440 | $ 31,511 | $ 27,678 | $ 31,577 | $ 26,991 |
| Interest | 87,185 | 84,971 | 84,144 | 79,142 | 73,843 | 73,427 | 69,879 |
| Changes of benefit terms | - | - | - | - | - | - | - |
| Differences between expected and actual experience | (23,139) | (27,434) | (24,112) | (13,871) | (41,706) | (27,712) | (21,627) |
| Changes of assumptions | (16,794) | (15,643) | (36,048) | 57,696 | 12,524 | (11,430) | 58,973 |
| Benefit payments | (47,072) | (46,711) | (45,917) | (46,021) | (43,562) | (40,879) | (37,904) |
| **Net Change in Total OPEB Liability** | **36,791** | **28,939** | **11,507** | **108,457** | **28,777** | **24,983** | **96,312** |
| **Total OPEB Liability - Beginning** | **1,232,017** | **1,203,078** | **1,191,571** | **1,083,114** | **1,054,337** | **1,029,354** | **933,042** |
| **Total OPEB Liability - Ending (a)** | **$ 1,268,808** | **$ 1,232,017** | **$ 1,203,078** | **$ 1,191,571** | **$ 1,083,114** | **$ 1,054,337** | **$ 1,029,354** |
| **Plan's Fiduciary Net Position (FNP)** | | | | | | | |
| Contributions - employer[3] | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Contributions - member | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Net investment income | $ 122,605 | $ (534,552) | $ 486,212 | $ 262,140 | $ 193,656 | $ (138,333) | $ 243,189 |
| Benefit payments | (47,072) | (46,711) | (45,917) | (46,021) | (43,562) | (40,879) | (37,904) |
| Administrative expense | (1,711) | (1,657) | (1,537) | (1,416) | (1,354) | (1,224) | (1,204) |
| Other[4] | (54,206) | - | - | - | - | - | - |
| **Net Change in Plan's Fiduciary Net Position** | **19,616** | **(582,920)** | **438,758** | **214,703** | **148,740** | **(180,436)** | **204,081** |
| **Plan Fiduciary Net Position[5] - Beginning** | **1,040,721** | **1,623,641** | **1,184,883** | **970,180** | **821,440** | **1,001,876** | **797,795** |
| **Plan Fiduciary Net Position[5] - Ending (b)** | **$ 1,060,337** | **$ 1,040,721** | **$ 1,623,641** | **$ 1,184,883** | **$ 970,180** | **$ 821,440** | **$ 1,001,876** |
| **Net OPEB Liability (Asset) NOL/(NOA) - Ending (a) - (b)** | **$ 208,471** | **$ 191,296** | **$ (420,563)** | **$ 6,688** | **$ 112,934** | **$ 232,897** | **$ 27,478** |
| **FNP as a Percentage of the Total OPEB Liability** | **83.57%** | **84.47%** | **134.96%** | **99.44%** | **89.57%** | **77.91%** | **97.33%** |
| **Covered-Employee Payroll**[6] | **N/A** | **N/A** | **N/A** | **N/A** | **N/A** | **N/A** | **N/A** |
| **Net OPEB Liability as a Percentage of Covered-Employee Payroll** | **N/A** | **N/A** | **N/A** | **N/A** | **N/A** | **N/A** | **N/A** |

1 Total OPEB liability is not available for years prior to December 31, 2017. Information will be presented in future years as it becomes available.

2 The service cost is based on the previous year's valuation, meaning the December 31, 2023 measurement date values are based on the valuation as of December 31, 2022.

3 Employer contributions are on a net basis. Benefits are funded by employer contributions to the 401(h) account and similar amounts are transferred from the SRBR to the employers' advance reserve to backfill the employer contributions that would have otherwise been made to the Retirement Plan.

4 A $54.2 million transfer from the OPEB SRBR to the non-OPEB SRBR was made by the Board of Retirement in 2023 to equalize the sufficiency periods of the OPEB and non-OPEB SRBR benefits.

5 For 2023, the Plan's Fiduciary Net Position amount shown ($1,060,337) includes the OPEB-related SRBR reserve of $1,070,992 (after reducing the reserve by the SRBR implicit subsidy transfer of $4,116) and the 401(h) reserve of ($10,117), less the proportionate share of the net deferred investment loss that is commensurate with the size of the OPEB SRBR reserve ($20,772). For 2022, the Plan's Fiduciary Net Position shown ($1,040,721) includes the OPEB-related SRBR reserve of $1,105,726 (after reducing the reserve by the SRBR implicit subsidy transfer of $7,981) and 401(h) reserve ($8,979), less the proportionate share of the net deferred investment loss that is commensurate with the size of the OPEB SRBR reserve ($73,984).

6 Covered-employee payroll is not shown as contributions to the OPEB plan are not based on a measure of pay. Covered-employee payroll represents Compensation Earnable and Pensionable Compensation. Only Compensation Earnable and Pensionable Compensation that would go into the determination of retirement benefits would otherwise be included.

## Schedule of Employer Contributions - OPEB

Last Ten Fiscal Years (Dollars in Thousands)

| Year Ended December 31 | Actuarially Determined Contributions (ADC)[1] | Contributions in Relation to ADC[1] | Contribution Deficiency (Excess) | Covered-Employee Payroll[2] | Contributions as a Percentage of Covered-Employee Payroll |
|---|---|---|---|---|---|
| 2014 | N/A | N/A | - | N/A | N/A |
| 2015 | N/A | N/A | - | N/A | N/A |
| 2016 | N/A | N/A | - | N/A | N/A |
| 2017 | N/A | N/A | - | N/A | N/A |
| 2018 | N/A | N/A | - | N/A | N/A |
| 2019 | N/A | N/A | - | N/A | N/A |
| 2020 | N/A | N/A | - | N/A | N/A |
| 2021 | N/A | N/A | - | N/A | N/A |
| 2022 | N/A | N/A | - | N/A | N/A |
| 2023 | N/A | N/A | - | N/A | N/A |

1 Benefits are funded by employer contributions to the 401(h) account and similar amounts are transferred from the SRBR to the employers' advance reserve to backfill the employer contributions that would have otherwise been made to the Retirement Plan.

2 Covered-employee payroll is not shown as contributions to the OPEB plan are not based on a measure of pay. Covered-employee payroll represents Compensation Earnable and Pensionable Compensation. Only Compensation Earnable and Pensionable Compensation that would go into the determination of retirement benefits would otherwise be included.

The Schedule of Investment Returns for the total fund is reported on page 62 of the RSI.

# Notes to Required Supplementary Information

## PENSION PLAN AND NON-OPEB

### Actuarial Assumptions

The Total Pension Liabilities (TPLs) as of the measurement dates were calculated by rolling forward the liabilities from prior years' actuarial valuations. The actuarial assumptions used to develop the TPLs are the same assumptions used for the respective funding valuations as of the measurement date of the TPL. The TPL as of December 31, 2023 was calculated by revaluing the TPL as of December 31, 2022 (before the roll-forward) to include the actuarial assumptions adopted for the December 31, 2023 funding valuation (from the experience study for the period December 1, 2019 through November 30, 2022), and then using this revalued TPL in rolling forward the results from December 31, 2022 to December 31, 2023. The key assumptions used for calculating the TPL as of December 31, 2023, are as follows:

| | |
|---|---|
| Inflation | 2.50% |
| Salary Increases | General: 8.00% to 3.45% and Safety: 11.40% to 4.00%, vary by service, including inflation |
| Investment Rate of Return | 7.00%, net of pension plan investment expense, including inflation |

### Methods and Assumptions Used to Establish Actuarially Determined Contribution (ADC) Rates

Actuarially determined contribution rates for the first six months of calendar year 2023 (or the second half of fiscal year 2022-2023) are calculated based on the December 31, 2021, valuation. Actuarially determined contribution rates for the last six months of calendar year 2023 (or the first half of fiscal year 2023-2024) are calculated based on the December 31, 2022, valuation.

| Valuation Date | December 31, 2022 | December 31, 2021 |
|---|---|---|
| Actuarial Cost Method | Entry Age Actuarial Cost Method | Entry Age Actuarial Cost Method |
| Amortization Method | Level percentage of payroll (3.25% payroll growth assumed) | Level percentage of payroll (3.25% payroll growth assumed) |
| Remaining Amortization Period | Prior to January 1, 2012, the total UAAL was amortized on a 30-year decreasing period, with 21 years remaining as of December 31, 2011 (and 10 years remaining as of December 31, 2022).<br>On or after January 1, 2012, any new UAAL resulting from plan amendments are amortized over separate decreasing 15-year periods.<br>Early retirement incentive programs (ERIPs) are amortized over separate decreasing 5-year periods.<br>Assumption and method changes are amortized over separate decreasing 20-year periods.<br>Experience gains/losses are also amortized over separate decreasing 20-year periods.<br>The Voluntary County Safety UAAL Contributions are amortized over a 13-year period effective July 1, 2021 (with 11.5 years remaining as of December 31, 2022). The voluntary LARPD General UAAL contributions are amortized over a 16-year period effective July 1, 2021 (with 14.5 years remaining as of December 31, 2022). Effective December 31, 2022, the existing LARPD General UAAL layers are amortized over 14.5 years. | Prior to January 1, 2012, the total UAAL was amortized on a 30-year decreasing period, with 21 years remaining as of December 31, 2011 (and 11 years remaining as of December 31, 2021).<br>On or after January 1, 2012, any new UAAL resulting from plan amendments are amortized over separate decreasing 15-year periods.<br>Early retirement incentive programs (ERIPs) are amortized over separate decreasing 5-year periods.<br>Assumption and method changes are amortized over separate decreasing 20-year periods.<br>Experience gains/losses are also amortized over separate decreasing 20-year periods.<br>The voluntary County Safety UAAL contributions are amortized over a 13-year period effective July 1, 2021 (with 12.5 years remaining as of December 31, 2021). The voluntary LARPD General UAAL contributions are amortized over a 16-year period effective July 1, 2021 (with 15.5 years remaining as of December 31, 2021). Effective December 31, 2021, the existing LARPD General UAAL layers are amortized over 15.5 years. |
| Asset Valuation Method | The actuarial value of assets is determined by recognizing any difference between the actual and the expected market return over 10 six-month interest crediting periods. The actuarial value of assets is further adjusted, if necessary, to be within 40% of the market value of assets. The valuation value of asset is the actuarial value of assets reduced by the value of the non-valuation reserves. | |

| Actuarial Assumptions: | December 31, 2022 | December 31, 2021 |
|---|---|---|
| Investment rate of return | 7.00%, net of pension plan administrative and investment expenses, including inflation | 7.00%, net of pension plan administrative and investment expenses, including inflation |
| Inflation rate | 2.75% | 2.75% |
| Real across-the-board salary increases | 0.50% | 0.50% |
| Projected salary increases | General: 8.35% to 3.65% and Safety: 11.25% to 4.05%, vary by service, including inflation and across-the-board salary increase | General: 8.35% to 3.65% and Safety: 11.25% to 4.05%, vary by service, including inflation and across-the-board salary increase |
| Cost of living adjustments | 2.75% of retirement income for General Tiers 1 and 3, and Safety Tier 1.<br>2.00% of retirement income for General Tiers 2 and 4, and Safety Tiers 2, 2C, 2D, and 4. | 2.75% of retirement income for General Tiers 1 and 3, and Safety Tier 1.<br>2.00% of retirement income for General Tiers 2 and 4, and Safety Tiers 2, 2C, 2D, and 4. |
| Other assumptions | Based on analysis of actuarial experience during the period December 1, 2016 through November 30, 2019. | Based on analysis of actuarial experience during the period December 1, 2016 through November 30, 2019. |

## Postemployment Medical Benefits

The actuarial assumptions used for the postemployment medical benefits valuation were consistent with those applied to the pension plan with the exception of Health Care Cost Trend Rate assumptions which are specific to the postemployment medical benefits.

The Total OPEB Liabilities as of the measurement dates were calculated by rolling forward the liabilities from the prior years' sufficiency valuation, with adjustments for preliminary assumptions adopted for the sufficiency valuation as of the measurement date.. The key assumptions used for calculating the total OPEB liability as of December 31, 2023, are as follows:

| | |
|---|---|
| Investment Rate of Return | 7.00% net of OPEB plan investment expense, including inflation |
| Inflation | 2.50% |
| Health Care Premium Trend Rates | |
| **Non-Medicare medical plan** | 8.50% in 2024, 7.50% in 2025, then graded from 7.00% in 2026 to ultimate 4.50% over 10 years. |
| **Medicare medical plan** | 16.47%[1] in 2024, then graded from 7.00% in 2025 to ultimate 4.50% over 10 years. |
| **Dental** | 0.00% in 2024 to reflect a two-year rate guarantee (premiums fixed at 2024 level for 2024 and 2025) and 4.00% thereafter. |
| **Vision** | 0.00% in 2024 to reflect a five-year rate guarantee (premiums fixed at 2021 level for 2022, 2023, 2024 and 2025) and 4.00% thereafter. |
| **Medicare Part B reimbursement** | 4.50% |
| Other Assumptions | Based on analysis of actuarial experience during the period December 1, 2019 through November 30, 2022. |

1 The initial 16.47% trend rate reflects an estimated increase to the baseline monthly Kaiser Senior Advantage premiums of $28 (8.00%) plus a one-time estimated increase of $30 (7.84%) due to the Inflation Reduction Act of 2022 (IRA), which includes material benefit cost-sharing changes for 2025, most notably implementing a $2,000 member out-of-pocket maximum, as well as various funding changes for Medicare prescription drug plans.

# Supplemental Schedules

## Administration Expense

For the Year Ended December 31, 2023
(Dollars in Thousands)

| | |
|---|---|
| **Personnel Services** | |
| Staff Wages | $ 8,093 |
| Fringe Benefits | 3,881 |
| Temporary Services | 376 |
| **Total Personnel Services** | **12,350** |
| **Professional Services** | |
| Consultant Fees | 364 |
| Audit | 104 |
| **Total Professional Services** | **468** |
| **Communications** | |
| Printing & Postage | 141 |
| Communication | 82 |
| **Total Communications** | **223** |
| **Office Space and Utilities** | |
| Office Space and Utilities | 26 |
| **Total Office Space and Utilities** | **26** |
| **Lease Expenses** | |
| Interest on Lease Liabilities | 4 |
| Amortization of Right-to-use Assets | 32 |
| **Total Lease Expenses** | **36** |
| **Other** | |
| Depreciation and Amortization | 81 |
| Board Operating Expenses | 366 |
| Insurance | 454 |
| Miscellaneous | 441 |
| Training | 133 |
| Equipment Leases[2] | 2 |
| Equipment Maintenance | 55 |
| Supplies | 11 |
| **Total Other** | **1,543** |
| **Subtotal: Administrative Expense Subject to Statutory Limit** | **14,646** |
| Actuarial Expenses | 469 |
| Business Continuity | 610 |
| Legal Expenses | 846 |
| Technology Expenses | 1,005 |
| **Subtotal: Administration Expense Excluded from Statutory Limit[1]** | **2,930** |
| **TOTAL ADMINISTRATION EXPENSE** | **$ 17,576** |

[1] Legal expenses, business continuity, and technology include an allocation of administration overhead expenses.

[2] Lease expenses that do not fall under GASB 87.

## Investment Expenses

For the Year Ended December 31, 2023
(Dollars in Thousands)

| | |
|---|---|
| Investment Manager Fees[1] | $ 61,716 |
| Brokerage Commissions | 1,047 |
| Investment Allocated Costs | 3,305 |
| Investment Consultants | 1,321 |
| Other Investment Expenses/(Income) | 341 |
| Investment Custodians | 603 |
| **Total Investment Expenses** | **$ 68,333** |

[1] The Investment Section of this report provides details of Investment Manager Fees by type of investment manager.

## Payments to Other Consultants[1]

For the Year Ended December 31, 2023
(Dollars in Thousands)

| | |
|---|---|
| Actuarial & Audit Services | $ 652 |
| Human Resources Consulting | 77 |
| Legal Services | 166 |
| Other Specialized Services | 1,560 |
| **Total Payments to Consultants** | **$ 2,455** |

Note: These are payments to outside consultants other than related to investments.

# Investments

# Chief Investment Officer's Report

## 2023 CALENDAR YEAR PERFORMANCE HIGHLIGHTS OF ACERA'S INVESTMENT FUND (TOTAL FUND)

By the end of the 4th quarter of 2023, ACERA's Total Fund increased to $11.3 billion[1]. ACERA's portfolio returned 12.7% on a gross basis in 2023, as shown in the table below, which includes Asset Class detail. Over the 2019 – 2023 period, the Total Fund's annualized return was 9.2%[2].

| Fund Composition | 2023 | $ Value in Billions | Actual % Weight Allocation | Target % |
|---|---|---|---|---|
| **Total Fund Return (as of 12/31/23)[i]** | 12.7% | $ 11.3 | 100.0% | 100.0% |
| Policy Index | 11.4% | N/A | N/A | N/A |
| Median | 11.4% | N/A | N/A | N/A |
| Domestic Equity | 25.8% | $ 2.9 | 25.5% | 24.0% |
| International Equity | 17.2% | $ 2.8 | 25.1% | 24.0% |
| Fixed Income | 7.3% | $ 1.7 | 14.8% | 14.0% |
| Real Estate | -10.8% | $ 0.8 | 6.9% | 9.0% |
| Private Equity | 9.3% | $ 1.1 | 10.0% | 11.0% |
| Absolute Return | 6.7% | $ 0.9 | 8.1% | 8.0% |
| Real Assets | 4.3% | $ 0.7 | 5.9% | 6.0% |
| Private Credit | 10.1% | $ 0.3 | 2.7% | 4.0% |
| Cash | 5.6% | $ 0.1 | 0.7% | 0.0% |
| Overlay | N/A | $ 0.0 | 0.2% | 0.0% |
| Year-End Total Fund (as of 12/31/23) | - | $ 11.3 | - | - |
| Beginning Total Fund (as of 12/31/23) | - | $ 10.3 | - | - |
| **Total Change in Fund Value** | **-** | **$ 1.0** | **-** | **-** |

**Source: Verus[ii] (Gross of Fees)**

i *All returns are gross. Total Fund Return (net of fees) for 2023 is 12.6%.*

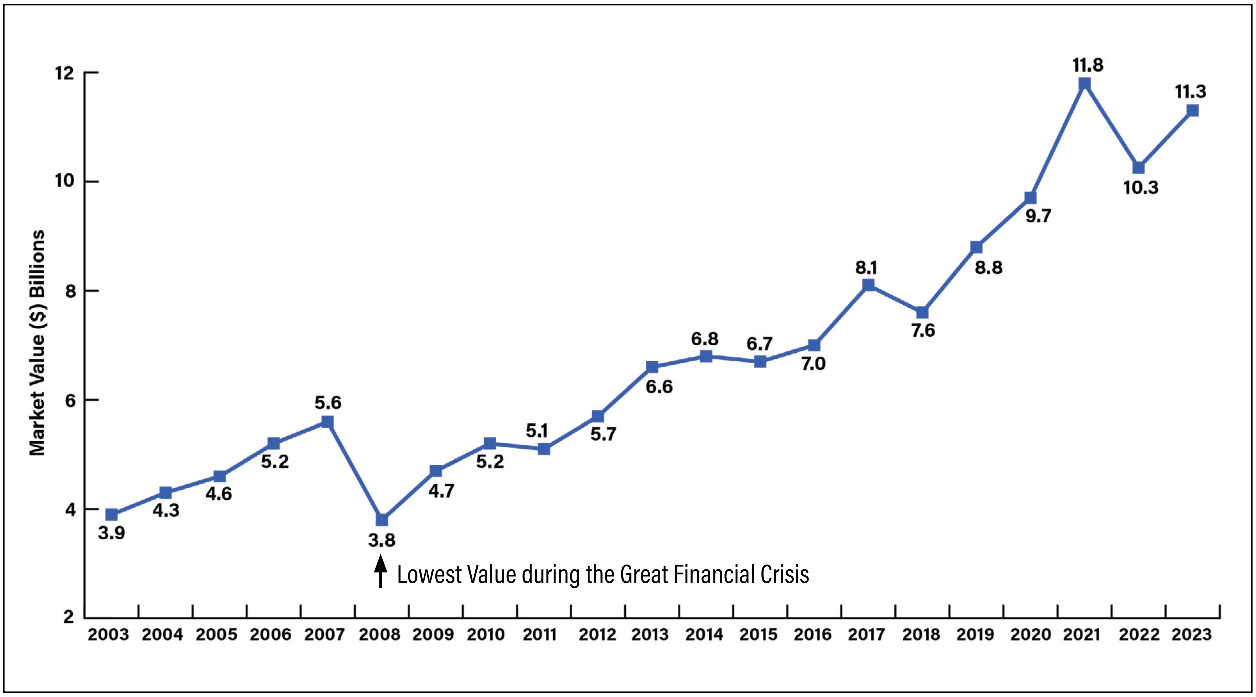
ii *Verus Advisory, Inc. ("Verus") is ACERA's General Investment Consultant*

**NOTE: Returns for periods greater than one year are annualized. Monthly return calculations are time-weighted, and market value based. Results of all publicly traded investments are presented in a format consistent with the CFAI Global Investment Performance Standards®.**

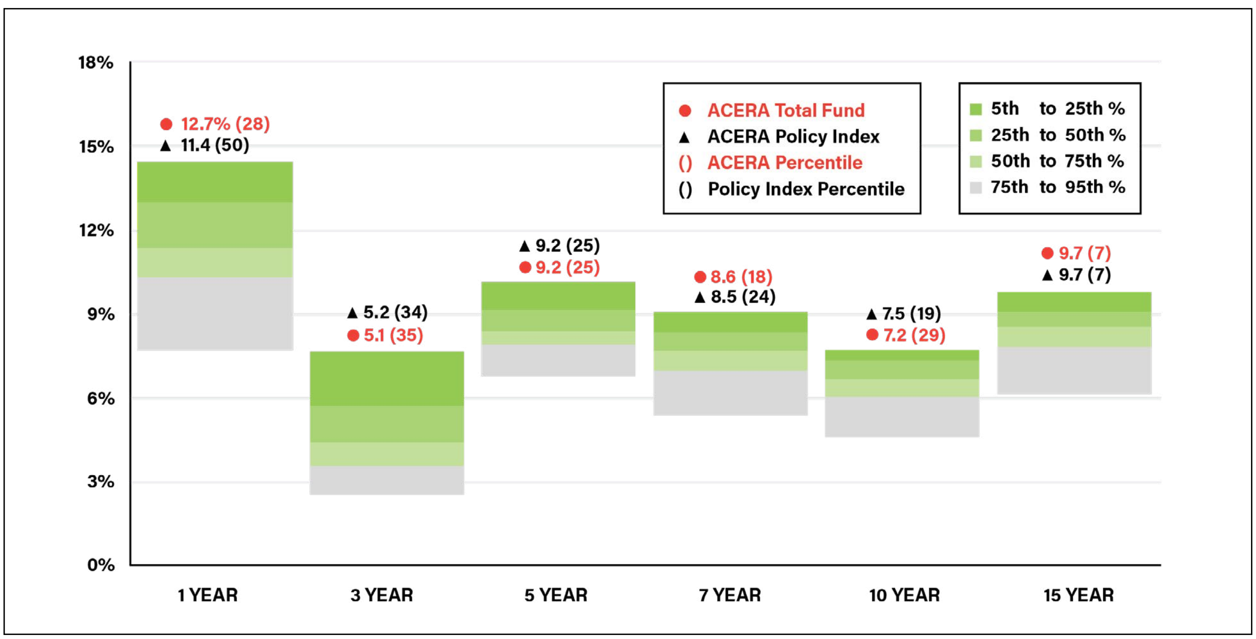
1 For 2023, ACERA made net disbursements of approximately $279.0M to pay supplemental retiree benefits, salaries, and administrative costs. For reference, the average net disbursements from the Total Fund over the past five years has been $221.8M.

2 The fund generated the following annual returns: 2019 +18.7%; 2020 +12.5%; 2021 +16.2%; 2022 –11.5%; 2023 +12.7%.

## ACERA Year-End Fair Values 2003-2023




## ACERA TOTAL FUND RETURNS VS. TOTAL PUBLIC FUNDS ANNUALIZED RETURNS



## ACERA TOTAL FUND ANNUALIZED RETURNS VS. TOTAL PUBLIC FUNDS ANNUALIZED RETURNS[1]

| | 1 Year | | 3 Years | | 5 Years | | 7 Years | | 10 Years | | 15 Years | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Return % | Rank | Return % | Rank | Return % | Rank | Return % | Rank | Return % | Rank | Return % | Rank |
| ACERA | 12.7% | 28 | 5.1% | 35 | 9.2% | 25 | 8.6% | 18 | 7.2% | 29 | 9.7% | 7 |
| Policy Index | 11.4% | 50 | 5.2% | 34 | 9.2% | 25 | 8.5% | 24 | 7.5% | 19 | 9.7% | 7 |
| Median | 11.4% | 50 | 4.4% | 50 | 8.4% | 50 | 7.7% | 50 | 6.7% | 50 | 8.6% | 50 |

Source: Verus (Gross of Fees)

The Board's primary goals in managing the Fund are:

1. Diversify the Fund's assets as its main defense against large market drawdowns, while maintaining reasonable risk exposure to meet return requirements;
2. Prevent deterioration in the funded status, and preserve long-term sustainability, of the Fund; and
3. Achieve returns at or above ACERA's actuarial rate of return over complete market cycles measured over rolling five-year periods[2].

ACERA believes that prudent management of risk is a central element of the investment function and that effective diversification among asset classes will reduce risk and enhance returns of the overall investment portfolio over the long-term. ACERA has strong controls in place to monitor and manage portfolio risks and to ensure compliance with all relevant fiduciary standards. It is important to remember that pension plan investments should be viewed over the long-term and that past performance is not indicative of future results.

## PERFORMANCE HIGHLIGHTS FOR 2023

After the Total Fund declined -11.5% gross in 2022 (underperformed its Benchmark, the Policy Index, -10.1%, and the Median Fund, -11.1%), the Total Fund gained 12.7%, outperforming the Policy Index, 11.4% and the Median Fund, 11.4%. Relative to the Peer Group of Public Funds larger than $1 billion, the Total Fund's percentile ranking was 28th, while the Policy Index was 50th.

In the first half of 2023, ACERA's Total Fund returned 7.5% gross, which ranked in the 30th percentile of the named Peer Group above. During this time period, the Total Fund outperformed the Median Fund, 6.8% and the Policy Index, 6.7%, 55th percentile.

In the second half of 2023, ACERA's Total Fund returned 4.9% gross, which ranked in the 40th percentile of the named Peer Group above. During this time period, the Total Fund outperformed both the Median Fund, 4.7% and the Policy Index, 4.5%, 60th percentile.

With the performance results noted above, the Total Fund's annualized gross returns through 2023 over a 3-year, 5-year, and 10-year period are 5.1%, 9.2%, and 7.2%, respectively. The short-term period of 5-years and the longer-term period return of 10-years is above the Board-approved actuarial return assumption of 7.0%, while the shorter-term 3-year period is below.

## FACTORS AFFECTING ACERA'S PORTFOLIO IN 2023

### The Board's Actions - Highlights

During 2023, the Board achieved the following:

- February 2023: the Board adopted the 2023 – 2029 Investment Plan for ACERA's Real Assets Asset Class and the 2023 – 2026 Investment Plan for Private Equity Asset Class.

1 Total Fund and asset class composites are ranked against the InvMetrics universe. A ranking of 1 is a top percentile ranking and a ranking of 100 is a bottom percentile ranking. The InvMetrics Public DB Funds > $1B Gross universe consists of 77 members and $788.6 billion. Effective 1/1/2017, only traditional asset classes (public equity, public fixed income, public real estate) investment management fees will be excluded in the gross of fee return calculation.

2 ACERA General Guidelines, Policies, and Procedures, amended May 19, 2022, P.8.

- April 2023: the Board adopted the 2023 - 2024 Investment Plan for Real Estate Asset Class. The Board also approved a Revised International Equity Asset Class Structure and Phased Implementation Transition Plan.
- June 2023: the Board approved the Finalists for ACERA's General Investment Consultant (GIC) Search. The Board also approved the minimum qualifications and scoring matrix for the Emerging Markets Equity Manager Search.
- September 2023: the Board selected NEPC, LLC as ACERA's General Investment Consultant.

During 2023 ACERA's Board expanded the Total Fund's investment in 8 privately placed funds worth $336 million, thus continuing to approach target asset allocations in Private Equity, Real Assets, and Private Credit. Broken down by asset class, this expansion represents:

- 6 new commitments to Private Equity totaling $226 million.
- 1 new commitment to Real Assets totaling $30 million.
- 1 new commitment to Private Credit totaling $80 million.

The Board is comprised of eleven appointed or elected members, including two alternates. All Board members are members of the Investment Committee. Both the Board and the Investment Committee meet monthly. An experienced group of fiduciaries, they work closely with Staff and ACERA's consultants to carry out their fiduciary responsibilities. Committee meeting agendas and minutes can be found on ACERA's website, www.acera.org.

## ACERA'S PORTFOLIO - DETAIL

ACERA's portfolio is diversified among eight major asset classes and strategies: Domestic Equities, International Equities, Fixed Income (U.S. and Global), Real Estate, Private Equity, Absolute Return, Real Assets, and Private Credit. The purpose of diversification is to reduce risk while maximizing potential long-term return. Statistically speaking, effective asset allocation policy and implementation drive 90% of total fund return and risk experience. The portfolio is constructed such that its volatility (defined as a measure of risk, i.e., standard deviation) is less than that of a traditional long-only, equity-only portfolio. ACERA's Total Fund is positioned to weather various market conditions and provide steady growth and income (net return) over the long term.

### Asset Class Review - 2023

| U.S. Equity | |
|---|---|
| Asset Class Allocation – Target | 24.0% |
| Asset Class Allocation – Actual | 25.5% |
| Return | 25.8% |
| Benchmark (Russell 3000 Index) | 26.0% |
| Over (Under)- Performance - relative to Benchmark | -0.2% |
| InvMetrics[1] U.S. Equity (Gross) - Median | 24.2% |

**Source: Verus Advisory, Inc.**

*Numbers may not add up due to rounding*

Following a 19.2% loss in 2022 - the largest calendar-year loss since the Great Financial Crisis in 2008 - the US Equity markets rebounded in 2023 with the Russell 3000, a broad, domestic equity index and the benchmark of the US Equity asset class, generating a 26.0% return. The 2023 rebound helped the Russell 3000 finish the year approximately 2% below its all-time high established late in 2021 and supported a strong 10-year annualized return of 11.5%.

Continuing their long-term outperformance relative to small caps, large cap stocks rebounded faster than small caps, with the Russell 1000, a large-cap index, rising 26.5% in 2023 versus 16.9% for the Russell 2000, a small-cap index. Also continuing their long-term outperformance over value stocks, growth stocks in both large and small caps outperformed value stocks with the Russell 1000 Growth Index rising 42.7% (versus a 11.5% increase in the Russell 1000 Value Index) and the Russell 2000 Growth Index rising 18.7% (versus a 14.7% gain in the Russell 2000 Value Index).

In 2023, ACERA's US Equity Asset Class slightly underperformed its Russell 3000 benchmark, with the portfolio generating a 25.8% return compared to 26.0% for the benchmark. With approximately 80% of the US Equity Asset Class being passively invested in a large-cap-core

1 As of 12/31/23, InvMetrics Public DB Funds > $1B Gross universe consists of 77 members and $788.6 Billion.

Russell 1000 Index managed by Blackrock (26.6% gross return in 2023 versus 26.5% return for the Russell 1000 Index), most of the asset class's performance deviation from its benchmark comes from its active large cap growth (5% target weighting), large cap value (5%), small cap growth (5%) and small cap value (5%) exposures. Last year, ACERA's active, large-cap managers outperformed their benchmarks while its active, small-cap managers underperformed. TCW, ACERA's active, large-cap-growth manager generated a 44.9% gross return (versus 42.7% return for the Russell 1000 Growth benchmark) and ACERA's active, large-cap-value manager, Aristotle, produced a 20.3% gross return (versus a 11.5% return for the Russell 1000 Value benchmark). Contributing to the US Equity asset class's underperformance was the slight underweight (4.4% weighting versus a 5% target weighting) in TCW at the beginning of 2023. The underweight in this strategy at the beginning of the year was the result of it suffering the largest loss of the active managers in 2022. With TCW producing the best returns in 2023 in the highest returning sub-class (Large-Cap Growth) last year, the underweight at the onset of the year hurt the asset class's performance. This factor, along with the underperformance of the active small-cap managers, led to the asset class's underperformance. Indeed, ACERA's active, small-cap-growth manager, William Blair, produced a 17.7% gross return, which underperformed the Russell 2000 Growth benchmark's return of 18.7% and ACERA's active, small-cap value manager, Kennedy, underperformed the Russell 2000 Value, producing a 12.8% gross return versus a 14.7% return for the benchmark.

| International Equity | |
|---|---|
| Asset Class Allocation – Target | 24.0% |
| Asset Class Allocation – Actual | 25.1% |
| Return | 17.2% |
| Benchmark (MSCI ACWI IMI – ex U.S. Index) | 16.2% |
| Over/(Under) Performance – relative to Benchmark | 1.0% |
| InvMetrics* All DB ex-U.S. Equity (Gross) - Median | 16.5% |

**Source: Verus Advisory, Inc.**

*Numbers may not add up due to rounding*

*As of 12/31/23, InvMetrics Public DB Funds > $1B Gross universe consists of 77 members and $788.6 Billion.

In 2023, the International Equity (IE) portfolio underwent significant restructuring as per the Board's strategic actions over recent years[1]. In April 2023, the Board approved the "International Equity Asset Class Structure and Phased Implementation Transition Plan," designed to realign the IE portfolio with its MSCI ACWI ex-US IMI benchmark, by style, geography and market capitalization. Accordingly, over one-third of the approximate $2.4 billion IE portfolio was transitioned from previously paired growth/value mandates to new core mandates. By year-end, with this ongoing strategic transition, the IE portfolio returned 17.2%, surpassing the benchmark's 16.2% return.

Approximately 54% of the IE portfolio is allocated across four active mandates – in 2023, each mandate outperformed its respective benchmark. Capital Group (largest active weighting, 14.6%) manages an international developed, mid-large cap, core mandate; this mandate outperformed the MSCI ACWI ex-US benchmark, 17.4% versus 16.2%. William Blair (2nd largest active weighting, 14.5%) manages an emerging market, mid-large cap mandate; this mandate outperformed the MSCI EM benchmark, 11.5% versus 10.3%. Bivium (14.3% weighting), manages an international developed, mid-large cap, core mandate; this mandate outperformed the MSCI World ex-US benchmark, 19.0% versus 16.8%. Franklin Templeton (10.0% weighting) manages an international developed, small cap mandate; this mandate outperformed the MSCI ACWI ex-US Small Cap, 17.1% versus 16.2%. The balance of the IE portfolio is passively invested and performed in-line with its respective benchmark: BlackRock World ex-US, 33.3% weighting and BlackRock EM, 13.0% weighting.

With the 2023 outperformance, the IE portfolio's three-year return trails the benchmark, 1.0% versus 2.0%. Over five years, though, the IE portfolio has outperformed, 8.1% versus the benchmark's 7.7%. Plus, this outperformance was achieved with less risk, shown by its Sharpe Ratio of 0.34, versus the benchmark's 0.33.

1 In mid-2021, the Board approved the redemption from Newton EM and subsequently, launched an EM Search. This EM Search led to an investment into William Blair EM in December 2022.

| Fixed Income | |
|---|---|
| Asset Class Allocation – Target | 14.0% |
| Asset Class Allocation – Actual | 14.8% |
| Return | 7.3% |
| Benchmark (75% Bloomberg US Agg/15% FTSE WGBI-ex U.S./10% BBgBarc US Corp HY) | 6.4% |
| Over/(Under) Performance – relative to Benchmark | 0.9% |
| InvMetrics* Fixed Income (Gross) - Median | 7.0% |

**Source: Verus Advisory, Inc.**

*Numbers may not add up due to rounding*

*As of 12/31/23, InvMetrics Public DB Funds > $1B Gross universe consists of 77 members and $788.6 Billion.

A more gradual-than-expected decline in inflation from decades-high levels in 2022 and a stronger-than-expected US economy, kept the Federal Reserve in tightening mode in 2023. After increasing the effective Federal Funds Rate from 0.1% at the end of 2021 to 4.1% at the end of 2022, the Fed continued to increase its benchmark rate in 2023, with the final rate increase for the year coming in July, increasing the effective Fed Funds Rate to 5.3%, which it remained through year-end. With the market anticipating the end of the Fed's tightening cycle and potential interest-rate cuts in 2024, all while the economy remained on solid footing throughout the year, credit spreads tightened, and interest rates ended the year close to where they started. These factors, along with higher yields generated from higher interest rates, produced solid gains in ACERA's Fixed Income Asset Class in 2023.

The Fixed Income Asset Class produced a 7.3% gross return, beating its blended benchmark (75% Bloomberg US Aggregate Bond Index/15% FTSE World Government Bond Index ex-US/10% Bloomberg US Corporate High Yield Index) return of 6.4%. Both the US and International Fixed Income Portfolios beat their benchmarks. US Fixed Income generated a 6.9% gross return compared to its benchmark (Bloomberg US Aggregate Bond Index) return of 5.5%. International Fixed Income generated a 10.3% gross return compared to its benchmark (FTSE World Government Bond Index) return of 5.2%.

Within US Fixed Income, the US Core Fixed Income manager (75% target weighting in the Fixed Income Asset Class), Baird, beat its benchmark, generating a 6.6% gross return (compared to the Bloomberg US Aggregate Bond Index return of 5.5%), while the US Credit Fixed Income manager (10% target weighting), Loomis Sayles, underperformed its benchmark, producing a 8.2% gross return, compared to a 9.4% return for its benchmark, the Bloomberg US Credit BAA Index.

The only active manager in the International Fixed Income Portfolio, Brandywine (15% target weighting), outperformed its benchmark, producing a 10.3% gross return compared to a 5.2% return for the FTSE World Government Bond Index.

| Real Estate | |
|---|---|
| Asset Class Allocation – Target | 9.0% |
| Asset Class Allocation – Actual | 6.9% |
| Return | -10.8% |
| Benchmark (NCREIF ODCE Property Index) | -12.0% |
| Over/(Under) Performance – relative to Benchmark | 1.2% |
| InvMetrics* Real Estate (Gross) - Median | -9.9% |

**Source: Verus Advisory, Inc.**

*Numbers may not add up due to rounding*

*As of 12/31/23, InvMetrics Public DB Funds > $1B Gross universe consists of 77 members and $788.6 Billion.

In 2023, ACERA's Real Estate portfolio returned -10.8%. Despite the negative return, the ACERA Real Estate portfolio outperformed its benchmark, the National Council of Real Estate Investment Fiduciaries Open-End Diversified Core Property Index (NCREIF ODCE, -12.0%) by 1.2%.

The Real Estate portfolio contains 18 active institutional funds and the ACERA building located in downtown Oakland. The sub-asset classes within the Real Estate portfolio include Core, Core-Plus, Value-Added, and Opportunistic. The Real Estate portfolio remains diversified across the sub-asset classes (please see ACERA's Real Estate Policy for portfolio composition targets). ACERA's core portfolio experienced a large negative return in 2023 due to persistently high interest rates. High interest rates lead to higher capitalizations rates which cause the valuation of real estate assets to decrease. Declining rent assumptions across commercial real estate also contributed to the steep decline. ACERA's core funds with higher weights to office suffered greatly as the office sector continued to be the worst performing sector (-17.6% Office in NCREIF Property Index). Returns in ACERA's core funds ranged from -7% to -40%. ACERA's value-add and opportunistic portfolio remained flat to slightly down. Real Estate continues to be an important, diversifying asset class for the Total Fund, as it has low correlation with other asset classes, generates stable income alongside asset price appreciation, and serves as a hedge against inflation. As of December 31, 2023, ACERA's Real Estate active portfolio has called approximately $614.7 million of committed capital and distributed approximately $365.7 million. There is roughly $105.3 million of uncalled capital based on total commitments as of year-end 2023.

| Private Equity | |
|---|---|
| Asset Class Allocation – Target | 11.0% |
| Asset Class Allocation – Actual | 10.0% |
| Return | 9.3% |
| Benchmark (Refinitiv C\|A Global All PE Index), 1 Qtr Lag | 3.8% |
| Over/(Under) Performance – relative to Benchmark | 5.5% |

**Source: Verus Advisory, Inc., No Private Equity Median**

*Numbers may not add up due to rounding*

ACERA's Private Equity portfolio outperformed in 2023, returning 9.3% for the year compared to the 3.8% benchmark return (Refinitiv C|A Global All PE Index 1-Quarter Lag). The Private Equity portfolio is currently invested across 69 funds and is segregated into three sub-asset classes: buyouts, venture capital, and debt-related/special situations (please see ACERA's Private Equity Policy for portfolio composition targets). ACERA's buyout funds had the highest performers for the year and debt-related/special situations funds were flat to slightly up overall. The venture funds struggled overall with losses generally across the board.

Private Equity continues to be an important asset class to the Fund, providing strong consistent returns, additional diversification, and cash flow in the form of distributions. Because the target of the Private Equity asset class was revised upwards to 11% from the previous 8% in 2021 (as part of the Asset Allocation Study), the Private Equity is under-funded compared to its target allocation. As of December 31, 2023, ACERA's Private Equity portfolio has called approximately $1.4 billion in capital and distributed approximately $1.3 billion (excluding dissolved/completed funds). There is roughly $0.6 billion of uncalled capital based on total current commitments as of the end of 2023.

| Absolute Return | |
|---|---|
| Asset Class Allocation – Target | 8.0% |
| Asset Class Allocation – Actual | 8.1% |
| Return | 6.7% |
| Benchmark (HFRI Fund of Funds Composite Index) | 6.3% |
| Over/(Under) Performance – relative to Benchmark | 0.4% |
| InvMetrics* All DB Hedge Funds (Gross) Median | 9.1% |

**Source: Verus Advisory, Inc.**

*Numbers may not add up due to rounding*

*As of 12/31/23, InvMetrics Public DB Funds > $1B Gross universe consists of 77 members and $788.6 Billion.

In 2023, ACERA's Absolute Return ("AR") Portfolio was able to produce benchmark-beating returns in an environment that would typically result in underperformance. The Absolute Return Portfolio is designed to be a diversifier to the equity markets, with its historical beta and correlation to the equity markets of 0.1 and 0.3, respectively. On the other hand, its benchmark, the HFRI Fund of Funds Composite Index, has historically had a beta and correlation to the equity markets of 0.3 and 0.8, respectively. Thus, given that global equities (i.e., MSCI ACWI) were up a strong 22.2% last year, the environment for the Absolute Return Portfolio to outperform was unfavorable.

Nevertheless, the portfolio was able to beat its benchmark by producing alpha primarily in equity-market neutral strategies (within its custom fund of hedge funds portfolios) and via timely, directional investments that benefitted from the gains in the equity and credit markets. 2023 was also the AR Portfolio's first full year with its 2021-adopted and 2022-implemented structure (80% custom fund of hedge funds ("FOHF")/20% Other Alternatives/Opportunistic). The newest investment in the AR Portfolio, the custom FOHF from Morgan Stanley (40% weighting in the AR Portfolio) yielded results last year, handily outperforming the HFRI Fund of Funds benchmark and provided solid diversification from ACERA's other custom FOHF manager, Lighthouse (40% AR Portfolio weighting). Furthermore, ACERA's investment in an opportunistic strategy with Blackstone (approximate 10% weighting in the AR Portfolio), generated strong gains that significantly beat the benchmark. Moreover, ACERA's currency manager, P/E Investments (approximate 5% weighting in the AR Portfolio), as well as its investment in a fund that invests in alternative-manager minority equity interests managed by Blue Owl GP Strategic Capital (formerly known as Dyal Capital; approximate 5% weighting) also posted solid gains. All told, The AR Portfolio produced a 6.7% net gain versus the HFRI Fund of Funds Composite gain of 6.3%.

| Real Assets | |
|---|---|
| Asset Class Allocation – Target | 6.0% |
| Asset Class Allocation – Actual | 5.9% |
| Return | 4.3% |
| Benchmark (60% Nat Res/35% Infra/5% BCOM) | 3.2% |
| Over/(Under) Performance – relative to Benchmark | 1.1% |

**Source: Verus Advisory, Inc., No Real Assets Median**

*Numbers may not add up due to rounding*

The objective of the Real Assets (RA) Portfolio is to generate a positive, domestic inflation-sensitive return in excess of its blended benchmark, which consists of 60% S&P Global LargeMidCap Commodity and Resources Index, 35% S&P Global Infrastructure Index, and 5% Bloomberg Commodity Index. In 2023, inflation moderated, with Core CPI (which excludes food and energy) beginning the year at 5.5% in January and progressively declining to 3.9% in December. Meanwhile, Headline CPI (which includes food and energy) began the year at 6.4% and moderated to 3.3% by year-end. With inflation moderating, the return of the RA Portfolio moderated as well, producing a 4.3% gross return, down from a 7.5% gross return in 2022. The RA Portfolio's 2023 return beat its blended benchmark, which produced a 3.2% return last year.

The RA Portfolio has had a large weighting to a liquid strategy that seeks to replicate the RA asset-class benchmark. This strategy invests in publicly traded equities in infrastructure (i.e. S&P Global Infrastructure Index) and natural resources (i.e., S&P Global LargeMidCap Commodity and Resources Index), along with exchange-traded commodity futures (i.e., similar to the Bloomberg Commodity Index) in weightings that correspond to their weightings in the asset-class benchmark. Beyond this strategy, the asset class started the year invested in ten illiquid, private investments including seven for private infrastructure and three for private natural resources. Another private infrastructure fund was added to the portfolio in 2023, bringing the portfolio's total investments in illiquid investments to eleven. 2023 began with the benchmark replication strategy representing approximately 60% of the asset class with the remainder in the private investments. As more of ACERA's committed capital to the private vehicles were called to be invested into these vehicles, the liquid replication strategy was used as a source of capital for the capital calls. Furthermore, the aggregate performance of the private investments outperformed the benchmark replication strategy. As a result, the asset class's percentage weightings to the benchmark replication strategy and the private investments shifted to approximately 55% and 45%, respectively, by the end of 2023. This is by design as the private side of the RA portfolio continues to be built out towards its ultimate target weighting of 75% of the RA asset class that will ultimately result in only a 25% weighting to the benchmark-replication strategy.

In 2023, the benchmark-replication strategy generated a 3.1% gross return, slightly underperforming the RA asset class benchmark return of 3.2%. Looking under the hood of this strategy, the infrastructure component (60% weighting in the strategy) produced a 6.3% return, which more than offset declines in the natural resources (35% weighting in the strategy; -1.3% return in 2023) and the commodities (5% weighting; -8.6% 2023 return) components. Meanwhile, the aggregate return of the private infrastructure and natural resources strategies slightly outperformed the RA asset class benchmark and posted modest gains for the year. Going forward, ACERA will continue to make new commitments to private infrastructure and natural resources investments and existing private investments will continue to call capital for investment into them. Moreover, as these new commitments are made and capital is called into the private investments, the capital needed will be sourced from the benchmark-replication strategy. These factors, over the next few years, are expected to evolve the mix of private investments in the RA portfolio towards its target of 75% of the RA asset class.

| Private Credit | |
|---|---|
| Asset Class Allocation – Target | 4.0% |
| Asset Class Allocation – Actual | 2.7% |
| Return | 10.1% |
| Benchmark (Morningstar/LSTA US Leveraged Loan 100 Index + 1.75%) | 15.3% |
| Over/(Under) Performance – relative to Benchmark | -5.2% |

**Source: Verus Advisory, Inc., No Private Credit Median**
*Numbers may not add up due to rounding*

ACERA's Private Credit ("PC") asset class, incepted in 2019, is comprised of direct-lending strategies or strategies that provide loans to corporations that are typically floating-rate, senior-secured, first- or second-lien loans. These strategies are invested through illiquid, private investment vehicles. In 2023, ACERA's PC Asset Class continued to be built out, with one additional commitment made to a private vehicle, bringing the total number of investment commitments in these vehicles to six. At the beginning of the year, the market value of the PC Asset class was $262.0 million, which represented 2.6% of the total fund. Throughout 2023, each of these strategies called and invested an increasing amount of ACERA's capital into these funds. By the end of the year, the PC asset class grew to $308.5 million, which represented 2.7% of the total fund. Because the income generated from these investments is typically distributed to ACERA on a quarterly basis, and represents a large share of their total return, along with a strong return in stocks, which drove the increase in the total fund's value, the weighting of the PC asset class in the total fund only inched higher in 2023. In 2023, the PC Portfolio generated a 10.1% return, which underperformed its benchmark (Morningstar/LSTA U.S. Leveraged Loan 100 Index +175 basis points), which returned 15.3%. Overall, the solid returns for both the PC asset class and its benchmark were driven by a rebound in loan pricing throughout 2023 (particularly for the benchmark), as well as significantly higher interest rates. In aggregate, the prices of loans progressively improved throughout the year as their fundamentals proved stronger than expected alongside an economy that surprised to the upside. Furthermore, because of the floating-rate nature of these investments, the rise in short-term rates boosted the base rates with which these loans pay loan interest on. (The interest on these loans is based on a base rate such as the Secured Overnight Financing Rate ("SOFR") plus a spread above the base rate.) In addition, while stress in the credit markets did increase last year the amount of credit stress was generally well contained.

The underperformance of the PC asset class was due to the delayed timing of 4Q:23 reporting from ACERA's private credit managers, less improvement in loan pricing compared to the benchmark, and a small portion of the loans in the PC asset class being restructured. The strategies in the PC asset class report their 4Q:23 performance several months after the end of the year. As a result, at the time of this writing, 4Q:23 results were not fully reflected in the asset class's full-year return. On the other hand, the benchmark is priced daily, which allowed the benchmark's full-year performance to be available at the time of this writing. In addition, in 2022, the drop in loan prices in the benchmark helped the PC asset class to outperform (4.0% return for the PC asset class versus 1.0% return for the benchmark in 2022). In 2023, however, the benchmark's loan prices appreciated more than the loans in the PC asset class, which did not fall as much in 2022. Finally, the PC asset class encountered some stress brought on by higher interest rates, cost inflation that pressured margins, reduced lower-income consumer spending, and some idiosyncratic business issues that caused a small portion of the portfolio's holdings to be restructured.

Going forward, ACERA will continue to increase investment commitments to this asset class. These future commitments, along with the investment of the existing investments' uncalled capital, is projected to increase the asset class's market value towards its 4% target value in the Total Fund in the coming 2-3 years.

## GENERAL ECONOMY AND INVESTMENT MARKETS IN 2023

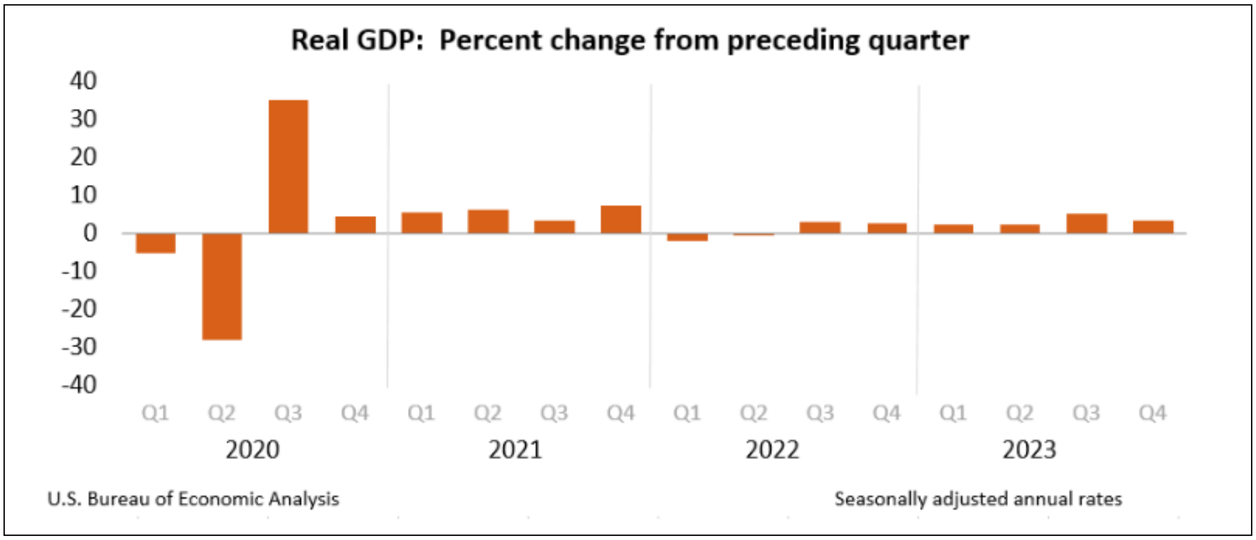
History appeared to be repeating itself last year with the S&P 500 scoring another record high similar to that of 2021 and ending the year with another double-digit return of 24.2% to reverse its over 18% loss experienced in 2022. This pleasant surprise is certainly welcome, and it came after many economists had forecasted a significant downturn following the same downward direction set in 2022 as the heightened interest rates, the Federal Reserve's continued attempt to combat the stubbornly high inflation, have been eroding the disposable income of consumers as well as the bottom line of corporations. The US consumers, however, remained resilient.

Many high-profile economists and investors have even forecasted a 61% chance of recession in 2023. These forecasts of "perfect storm" and "debt crisis" had underestimated the impact of government stimulus and the resilience of consumers and businesses. And, they were too skeptical of the Federal Reserve's ability to push inflation lower without sparking a recession. The economy continued to grow steadily while inflation was trending closer to the Fed's goal of 2%. At the same time, unemployment remained near a half-century low and the stock market was near record highs.

The resiliency of the US economy in 2023 was buoyed by the continued stable job market with historical low unemployment rate of less than 4%. A stronger than expected consumer confidence which typically drives about two thirds of the US economy, as measured by GDP, was a highlight. This coupled with the gradual downward inflation trend as well as the remedied supply chain disruptions experienced in the prior years, and the impressive growth of the Magnificent Seven (Alphabet, Amazon, Apple, Meta, Microsoft, Nvidia and Tesla) technology behemoths had returned double-digit and even triple-digit returns for the year. These remarkable returns had no doubt prompted the better-than-expected index returns and helped to avoid a recession as forecasted by many economists. At the same time these powerful tech performers created a large performance gap when compared to other companies in the S&P 500 Index, the latter returned less than 14%.

Real GDP increased 2.9 % year over year in 2023, a marked improvement to its 1.7% increase recorded in 2022. All three major indexes recorded strong gains for the year. In addition to the 24.2% gains in the S&P 500, the Dow Jones Industrial Average returned 13.7% while the tech-heavy Nasdaq Composite returned 43.4%. Much of these remarkable index returns were attributed to the lowered inflation trend recorded for core CPI at 3.8% at the end of 2023, versus 6.4% a year earlier with a backdrop of a steady and strong job market which has seen perpetual growth in its healthcare sector, partly attributed to the aging baby boomer generation. An equally important factor contributing to these index returns was consumer spending which rose about 2.7% year over year in November of 2023, the strongest growth since early 2022. (Household savings rate was, however, at a relatively low rate of 4.1%, partly caused by higher prices of goods and services).

ACERA's well diversified Total Fund, as an active participant in the capital market, has benefitted from the growth and the resiliency of the economy in 2023. The Total Fund returned 12.7% (gross of fees) and 12.6% (net of fees) for the year 2023 after paying all benefit payments, administrative expenses and meeting all capital call requirements timely. Importantly, the Total Fund's gross-of-fees returns was ranked in the upper 28th percentile of the InvestorForce Public Defined Benefits fund universe along with other 76 participants in it. This investment result continues to exceed the stated 7% actuarial investment return assumption of the Plan, as well as sustaining the Total Fund's risk adjusted and net-of-fees returns ranking it in the top half of a competitive, institutional public fund peer universe.




## Equity Markets - Domestic and International

The US Equity markets rebounded across the board last year, with the Russell 3000 (a broad index measuring stocks of all sizes) gaining 26.0% following a 19.2% loss in 2022. There were two primary drivers of the US Equity markets in 2023: 1) the increased likelihood that the Fed would engineer a "soft landing" in the economy; and 2) the remarkable returns from a concentrated list of technology stocks that drove the performance of large-cap indices. Going into 2023, investors expected the cumulative impact from the Fed's tightening to weigh on economic growth and potentially cause a recession in the US. However, thanks in large part to the massive deficit spending of the US government and lingering transfer payments to consumers related to COVID, the economy was stronger than many anticipated. As inflation moderated throughout the year towards the Feds 2% target, the Fed was able to pause its tightening campaign in 3Q:23 and kept rates at the same level through year-end. These factors, along with modest earnings growth and an expectation that the Fed would begin to cut interest rates in 2024, helped the equity markets rebound last year as a soft landing in the economy became more and more likely.

Some of the Magnificent Seven stocks had been hammered in 2022 as growth companies were battered by higher interest rates. However, as artificial intelligence ("AI") platforms were rolled out to the public, technology spending to support increased use of AI (especially with Nvidia) rose, AI growth expectations strengthened, and with potential interest-rate cuts seemingly on the horizon, these stocks rebounded sharply. According to Russell Investments, the average total return in these seven stocks last year was 105%. Given the massive market capitalizations of these companies, along with their sharp rise last year, their influence on large-cap indices was huge – 62% of the Russell 1000's 26.5% return was driven solely by these seven stocks. According to a commonly used measure to analyze market concentration – the Herfindahl-Hirshman Index – the US stock market's company concentration hasn't been this high since the "Nifty-Fifty" in 1970. Given the large impact the Magnificent Seven had on US equity market returns, large caps outperformed small caps (Russell 1000 +26.5% versus +16.9% for the Russell 2000) and growth stocks outperformed value stocks (Russell 1000 Growth +42.7% versus 11.5% for the Russell 1000 Value). The outperformance of large versus small stocks and growth versus value stocks continued a long-term trend as these mega-cap technology stocks have increasingly influenced returns over the last decade. At the end of 2023, the trailing 10-year annualized return of the large-cap Russell 1000 Index was 11.8% compared to 7.2% for the small-cap Russell 2000 Index. The trailing 10-year return of the Russell 1000 Growth (i.e., large cap growth stocks) was 14.9% compared to an 8.4% annualized return for the Russell 1000 Value.

In terms of US equity market valuation and earnings growth as measured by the S&P 500 Index (which provides earnings data and is considered one of the broadest market indexes), the US equity market remains highly valued and earnings growth is expected to pick up in 2024. Going into 2023, the S&P 500 was valued at 19x trailing operating earnings and following approximately 8% earnings growth in 2023 and the S&P 500's total return of 26.3% last year, its trailing Price-to-Earnings (i.e., "PE") ratio moved higher over the year and ended at 22.4x. With S&P 500 earnings projected to increase 13% in 2024 (versus –5.4% in 2021 and approximately 8% in 2023), the S&P 500 ended 2023 at 19.9x 2024 estimated operating earnings. According to S&P Global, the S&P 500 average Price-to-Earnings ratio in the ten years before the COVID pandemic was 15.5x, showing that US stocks remain highly valued compared to relatively recent, pre-pandemic measures. Over a longer time period and utilizing a long-term valuation measure, the Cyclically Adjusted Price-to-Earnings ("CAPE") Ratio of the S&P 500 (a measure that looks at inflation-adjusted 10-year earnings of the S&P 500 companies versus the Index's price level), the S&P 500 ended 2023 with a CAPE ratio of 34.0x versus a 50-year average of 24.3x.

Overseas, falling inflation, higher real wages boosting consumer confidence, signs that international central banks might halt rate hikes, along with a weaker USD and a continued surge in AI interest, fueled significant stock market gains in 2023. By year-end, the MSCI ACWI ex-US gained 15.6%, trailing the 20%+ returns experienced in the US markets, as noted above. This could signal a return to the 2009-2022 trend where the US annually outperformed International markets (this trend ended in 2022, with the MSCI ACWI ex-US -16.0%, versus the Russell 3000 -19.2%). By geography, MSCI Europe returned 19.9%, followed by MSCI Pacific, which returned 15.3% and MSCI EM, with a return of 9.8%. Emerging Markets continued to relatively underperform developed markets due to China's 2022-2023 sell-off (MSCI China had a loss of -11.2% in 2022 and -21.9% in 2023, respectively). This underperformance contributed to the dispersion between the MSCI World ex-US Index, returning 18.6% (which does not include EM/China) and the MSCI ACWI ex-US, returning 15.6% (which does include EM/China).

Ongoing conflicts, such as the prolonged Russia-Ukraine war and rising tensions in the Middle East, pose geopolitical risks. Meanwhile, growing tensions between China and the US have played a part in China's economic deceleration. Since 2021, "Chinese stocks have lost $4 trillion in value."[1] Neighboring markets have rallied materially. Japan, historically out of favor, is now in favor. India, now the world's fastest growing economy, is expected to grow north of 6% according to the IMF and World Bank[2]. India, as of the end of February 2024, valued at $4.4 trillion, was the 4th largest equity market, trailing only Japan, at $6.5 trillion, China, at $11.5 trillion and then the US, valued at $52.6 trillion ( with about $13 trillion of this US market cap due to the material outperformance from the US' Magnificent Seven, as indicated above). This China-India economic growth divergence has led to the

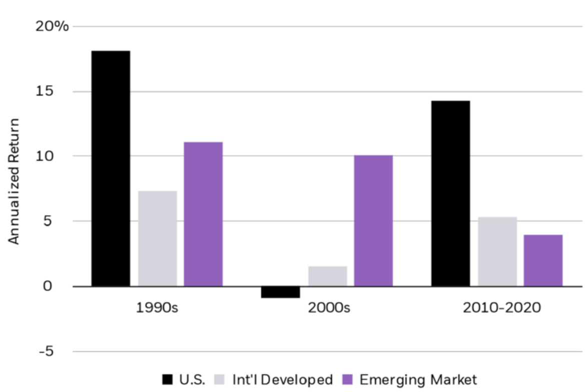
1 https://www.bloomberg.com/news/articles/2024-01-08/china-s-weight-in-key-emerging-market-index-drops-to-record-low

2 2024 IMF and World Bank GDP Projections: 6.3% and 6.4%

convergence of their country weights in the MSCI EM benchmark: China now represents roughly 25% of the EM benchmark, and India about 18%. This 7% gap in EM country representation is at lowest levels; 5 years ago, the gap was about 24% (China was about 33% of the EM benchmark, and India 9%).

As the market appears to price rates as elevated, or "higher for longer" as the go-forward new normal, amidst a backdrop of continued U.S. equity dominance relative to the rest of the world, there is a "Why bother"[1] notion to investing internationally. Said another way, why take on additional risk investing internationally for potentially only mid-single digit returns, when U.S. equity could return 20% or U.S. fixed income could return 5%, with less risk. In the short-term, such divergence could persist, as the expensive could get more expensive and the cheap could get cheaper. Over the longer-term, and as history would suggest, U.S. and International Equity "have gone through their cycles of outperformance" (Chart received from BlackRock). Since the Board's strategic Total Fund allocation to equities is 50/50 U.S./International, the entire ACERA Equity Portfolio is positioned to benefit from diversification, regardless of the market cycle.

**U.S. and international stocks have gone through cycles of relative outperformance**




Source: Thomson Reuters, as of 10/27/2020. U.S. stocks represented by the S&P 500 Thomson Reuters; Int'l Developed stocks represented by MSCI EAFE + Canada Index (gross); Emerging Market stocks represented by MSCI Emerging Markets Index (gross). Index performance is for illustrative purposes only. Index performance does not reflect any management fees, transaction costs or expenses. Indexes are unmanaged and on cannot invest directly in an index. Past performance does not guarantee future results.

## Fixed Income Markets - Domestic and Global

Though inflation moderated in 2023, it still stubbornly stayed above the Fed's 2% target. Moreover, economic activity remained resilient. These factors caused the Federal Reserve to raise its benchmark Fed Funds rate four times, for a total of 1%, to a range of 5.25% - 5.50% in 2023. This brought the effective Fed Funds rate to 5.3%, the highest it has been since 2006, which was the cyclical peak in interest rates prior to the Great Financial Crisis. With the Fed Funds rate increasing less than it did in 2022, interest-rate volatility declined in 2023 compared to 2022 and interest rates in the US ended the year close to where they started. The 10-year Treasury yield began 2023 at 3.9%, traded between 5.0% and 3.3% during the year (versus a 4.3% and 1.6% range in 2022) and ended the year back at 3.9%. The 2-year Treasury yield began the year at 4.4%, traded between 5.2% and 3.8% (versus a 4.7% and 0.8% range in 2022), and ended the year at 4.2%, well below the 5.3% effective Fed Fund's rate and reflecting the expectation that the Fed will cut rates in 2024. Meanwhile, the yield curve, calculated as the difference between the 10-year Treasure yield and the 2-year Treasury yield, started the year at –0.5%, widened to over –1% in March and July of the year, and ended the year at -0.4%. The 10y – 2y Treasury yield curve had been inverted since the middle of 2022 and its slight flattening from the beginning to the end of 2023 reflected declining market odds of a recession, as well as the likelihood that the Fed's tightening cycle has ended with potential interest rate cuts on the horizon.

With optimism that the economy would avoid a recession and interest-rate cuts were on the horizon, credit spreads, a measure of credit risk, narrowed with the riskiest credit ratings narrowing the most. BBB credit spreads, the spread between BBB-rated credits (the lowest investment-grade credit rating) and US Treasuries of the same maturity, began the year at 1.7%, peaked at 2.0% in March during the collapse of Silicon Valley Bank, and declined to end the year at 1.3%. (for a total of 0.4% spread tightening). Meanwhile, the spread between CCC-rated credits, a risky non-investment grade credit, and US Treasuries with the same maturity, began the year at 11.7%, peaked at 11.9% in March, then progressively declined to 9.0% by year-end (for a total of 2.7% spread tightening). The year-end CCC spread was

1 https://www.reuters.com/markets/emerging-markets-face-why-bother-problem-mike-dolan-2024-01-12/

below the 10-year average CCC spread of 9.8%, reflecting a below-average high-yield default rate in 2023. According to Fitch Ratings, the US high-yield default rate was 3.0% in 2023, up from 1.4% in 2022 and below the 3.6% average over the 2001-2022 period.

With higher interest rates throughout the year, which produced higher levels of income on fixed-income securities, along with the narrowing of credit spreads, which improved the prices of corporate bonds, particularly those of riskier credits, high-yield bonds performed best, followed by investment-grade bonds, then US Treasuries. Indeed, the Bloomberg US High Yield Index generated a 13.4% return, the Bloomberg US Aggregate Bond Index produced a 5.5% return, while the Bloomberg US Treasury Index returned 4.1%.

Global fixed income markets largely followed similar dynamics found in the domestic market in 2023. Monetary tightening in Europe and the UK peaked in 3Q:23 as the rate of inflation fell and interest rate cuts in 2024 became increasingly likely in 4Q:23. In the emerging world, peak monetary tightening was also largely experienced in the second half of the year and looser monetary policies were enacted or on the horizon by the end of the year as well. These factors helped interest rates decline and bond prices rise (with the notable exceptions of Japan and Mexico), resulting in the FTSE World Government Bond Index return of 5.2% last year. Also similar to the US, investors felt more comfortable investing in riskier credits, causing credit spreads to narrow and higher-risk bonds to outperform. This led to the outperformance of emerging market debt (JPM GBI-EM Global Diversified Index), which produced a 12.7% return, and global high yield debt (S&P U.S. Dollar Global High Yield Corporate Bond Index), which produced a 12.2% return.

## Private Real Estate Markets

Following modest gains in 2022, the private real estate market experienced some losses in 2023 due to persistently high interest rates and the continued decline of the office sector. The NCREIF[1] Open End Diversified Core Equity Index (NFI-ODCE), a proxy for private real estate, returned -12.0%, marking the first negative return since 2009 for the index. Core and core-plus strategies struggled to perform given the higher debt costs (-2.0% 1-year IRR[2]). Value-add (0.1% 1-year IRR[2]) and opportunistic (1.6% 1-year IRR[2]) strategies struggled due to higher costs of construction and building materials in combination with higher debt costs. On the flip side, debt and distressed real estate strategies performed very well in 2023. Real Estate debt strategies (6.6% 1-year IRR[2]) were boosted by high interest rates while distressed real estate (7.0% 1-year IRR[2]) deal activity increased due to tightened market conditions.

According to the NCREIF Property Index, the annual returns for the real estate property types are as follows: Industrials -4.1%, Apartment -7.3%, Hotel 10.3%, Office -17.6%, and Retail -0.9%. Within the Industrial sector, demand for warehouse and distribution center space slowed down by the end of 2023, as net absorption (amount of leased space minus the amount of vacated space) dropped 65% to 8.8 million sqft from 3Q:23 to 4Q:23[3]. Within Multifamily (i.e., apartments), 4Q:23 showed a net absorption rate of 8.9k units, well below the 45k unit average in the first three quarters of 2023[3]. The Office sector continued to face headwinds, with national vacancy rates hitting an all-time high of 19.6%[3]. The Retail sector's fundamentals remained relatively flat in 2023, with vacancy rates floating around 10% and effective rents remaining around $19/sqft[3]. The one hot sector in 2023 was Hotels. According to STR (hospitality data company), revenue per available room (RevPAR) in 2023 was at $97.97, up 4.9% over 2022 and the highest data point on record.

## Private Equity (PE) Markets[4]

In 2023, private equity continued the decline that started in 2022. As the Federal Reserve maintained high

1 National Council of Real Estate Investment Fiduciaries

2 Pitchbook "H2 2023 Global Real Estate Report"

3 Moody Analytics "Q4 2023 Preliminary Trend Announcement"

4 Data from Bain & Company "Global Private Equity Report 2024"

interest rates to control inflation, the higher borrowing costs slowed private equity activity across the board. For the year, global buyout deal value decreased 37% to $438 billion (excluding add-on acquisitions). Global buyout exits (sales) decreased 44% to $345 billion. The number of buyout funds that closed in 2023 dropped to 449 globally, a 38% decrease from 2022. As a result of the slowdown, dry powder (committed but uninvested capital) reached an unprecedented level of $3.9 trillion.

As traditional banks continue to pull back from financing leveraged buyout (LBO) transactions, private credit continued to fill in the gap. In 2023, 84% of new loan issuances for middle-market LBO transactions were from direct lending (i.e., private credit) vs 16% syndicated loans (i.e., traditional banks). For comparison, in 2014 the mix was 36% direct lending and 64% syndicated debt. Looking at another aspect of debt in private equity, the debt to EBITDA (earnings before interest, tax, depreciation, and amortization) multiple for US corporations dropped to 5.9x in 2023, a 17% drop from 2022. This data point shows that it was harder for companies to borrow money in 2023.

Private equity continues to demonstrate its value as a diversified source of investment return. The asset class continues to perform above public equities across several long-term time horizons using Public Market Equivalent (PME) measures. However, in 2023, the PME 1-year return (~20% IRR) more than doubled the private equity return (less than 10% IRR) in the United States. This reverses the result in 2022, where the private markets outperformed public markets on a PME basis (+5% buyouts funds vs -19% S&P500 PME).

## Absolute Return Markets

Absolute return markets (i.e., hedge funds), as measured by the HFRI Fund of Funds Composite Index, rebounded in 2023 alongside the equity and fixed income/credit markets. Following a 5.3% loss in 2022, this index gained 6.2% last year, which was true to its historical 0.3 beta to the global equity markets (i.e., MSCI ACWI Index), which returned 22.7%. Leading the way last year were Equity Hedge strategies, followed by Event Driven, and Relative Value strategies, with Macro strategies lagging.

Equity Hedge strategies benefitted from higher equity markets, lower equity-market volatility compared to 2022, and a greater dispersion in single-stock price movements. Also benefitting these strategies were high short-term interest rates that were well in excess of average equity dividend yields, which boosted the strategies' "short rebate" (i.e., the return on the collateral posted with the lender of the shorted securities). All told, Equity Hedge strategies, as measured by the HFRI Equity Hedge (Total) Index, returned 11.4% last year following a 10.1% loss in 2022. Event Driven strategies, as measured by the HFRI Event-Driven (Total) Index, also rebounded in 2023, returning 10.4% compared to a loss of 4.8% in 2022. With these strategies' performance being driven by corporate events such as mergers and acquisitions ("M&A"), close to 70% of last year's return was driven by the final two months of the year when M&A activity rose sharply in the final quarter of 2023. In addition to the pickup in M&A activity in 2023's fourth quarter, stocks and bonds rallied strongly in the period as well, which were tailwinds for these strategies. Meanwhile, Relative Value strategies, as measured by the HFRI Relative Value (Total) Index, returned 7.0% in 2023, compared to a 0.7% loss in 2022. These strategies, which principally invest in fixed income and credit investments, benefitted from lower interest-rate volatility, higher interest rates and credit-investment dispersion in 2023 versus 2022, attractive credit spreads to invest into, and a 4Q:23 rally in bonds/credit investments.

On the negative side, Macro strategies, as measured by the HFRI Macro (Total) Index had a tough time in 2023, producing 0.3% loss. This follows a stellar 9.0% return in 2022, a year in which most hedge-fund strategy types struggled to achieve positive returns. While these strategies benefitted from higher interest rates, which paid a healthy return on the high levels of unencumbered cash (not posted as margin on their derivative investment portfolios) these strategies typically have, the emergence of a potential banking crisis in March, when Silicon Valley Bank collapsed, caught these strategies off guard. In addition, the macro trading environment proved difficult in 2023 due to economic uncertainty and macro surprises, such as the sharp reversal in interest rates in November. Most impacted were systematic strategies, with the HFRI Macro: Systematic Diversified Index, and the HFRI Macro: Systematic Directional Index, which lost 3.8% and 3.6% last year, respectively.

## Real Assets Markets

The role of Real Assets investments, in this report covering infrastructure, natural resources, and commodity investments, is to provide an inflation-sensitive return that is diversifying to the other asset classes in a portfolio such as equities and fixed income. With this in mind, Real Assets investments performed as advertised in 2021 and 2022, collectively producing solid returns while inflation reached decades highs and in 2022 when the equity and fixed income markets experienced substantial losses. In 2023, inflation moderated and concerns over economic growth weighed on economic-sensitive commodity and natural resource investments. As a result, the returns of these investments last year were mixed. Infrastructure investments, as measured by the S&P Global Infrastructure Index, produced a solid 5.6% return, natural resources investments, as measured by the S&P Global LargeMidCap Commodity and Resources Index, generated a –1.6% return, and the Bloomberg Roll Select Commodity Index (a diversified index of commodities) returned –8.5%.

Infrastructure investments are largely insulated from economic cyclicality as they provide essential services through stabilized assets such as toll roads, airports, utilities, data centers, and energy pipelines. Moreover, infrastructure assets typically have business models that have stable, long-term cash flow profiles that can produce higher cash flows as inflation rises. Given these characteristics, along with the moderation of, but still high, inflation in 2023, the return of the S&P Global Infrastructure Index was positive yet modest following 11.1% and –1.0% returns in 2021 and 2022, respectively.

On the other hand, natural resources and commodities investments are economically sensitive and are subject to more supply-demand volatility. In 2021 and 2022, demand for commodities picked up as the world progressively reopened from the COVID-19 lockdowns and the war in Ukraine created commodity supply disruptions. As a result, commodity prices were strong over the 2021-2022 timeframe as inflation rose sharply, with the Bloomberg Roll Select Commodity Index returning 27.9% and 15.3% in 2021 and 2022, respectively. However, supply-constraints eased going into 2023 and the global economy experienced weakness. Because the demand for certain commodities such as energy and industrial metals is economically sensitive and following the sharp runup in prices over the 2021-2022 period, commodity prices broadly weakened in 2023 despite inflation continuing to be well above the Fed's 2% target.

Natural resource investments typically rise and fall alongside the prices of the commodities these investments produce. As a result, similar to the return pattern of commodities in the 2021-2023 timeframe, natural resource investments, as measured by the S&P Global LargeMidCap Commodity and Resources Index produced returns of 26.3% and 14.7% in 2021 and 2022, respectively. After the runup of the prices of these investments and with economic weakness experienced in 2023, natural resource investments gave some of their 2021-2022 gains back last year.

## Private Credit Markets

2023 was a stellar year in the Private Credit markets, defined in this report as private direct lending to corporations in the US. The asset class, which is primarily comprised of floating-rate, senior-secured first- and second-lien loans, benefitted from high short-term interest rates, persistent US economic strength, and loan amendments, which helped to keep loan defaults low. In addition, a pullback from banks in the loan market and economic uncertainty that reduced loan origination in the syndicated loan market also helped the Private Credit asset class continue to take market share from banks and the syndicated loan market throughout the year.

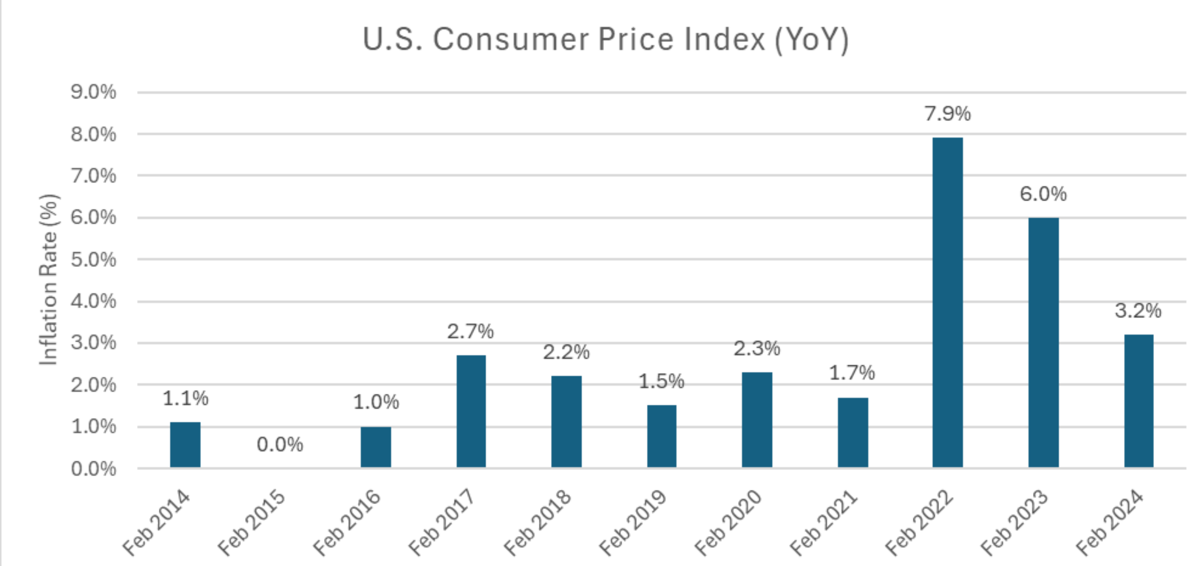
Private credit loans generate returns from the interest paid on the loans, origination fees, and loan prepayment penalties, with the primary source of return coming from the interest paid. The interest paid is "floating", which means that as interest rates rise, the interest paid rises as well and is determined by a base rate such as the Secured

Overnight Financing Rate ("SOFR") plus a spread above the base rate. The spread above the base rate typically is 350 – 800 basis points, depending upon the riskiness of the loan and the degree to which loan capital is scarce at the time the loan is made.

SOFR largely tracks the effective Fed Funds Rate. As the Federal Reserve raised interest rates in 2022 and 2023, SOFR also rose, starting 2023 at 4.3% and rising to 5.3% by the middle of the year where it remained through year-end. Because interest on private credit loans reset higher as the base rate (i.e., SOFR) rises, the income generated from private credit loans were yielding approximately 8.8% - 13.3% (i.e., 5.3% SOFR plus a spread of 350 - 800 basis points = 8.8% - 13.3%) by the middle of 2023. In addition, following 2022, a year in which loan prices were marked down due to economic uncertainty, the US economy proved more resilient and stronger in 2023, which caused a rebound in loan prices as the business fundamentals of the borrowers were better than expected. While higher base rates generated very strong interest income for investors, the flip side of this phenomenon was increased interest-expense burdens for borrowers, which reduced interest coverage (i.e., the amount of cash borrowers have to pay interest expenses relative to the amount of interest expenses they have to pay). Broadly speaking, borrowers were able to service the higher interest payments as US economic fundamentals largely helped business grow incomes modestly last year. Moreover, private credit loans are typically made to borrowers in economically insensitive sectors such as Technology, Healthcare and Business Services. However, loan covenants such as minimum interest coverage ratio were sometimes violated or were likely to be violated in the short term, causing the need to amend the loan in order to avoid a technical default. As a result, there was a good amount of "amend and extend" activity in the private credit markets. In these situations, the lender(s) would amend the loan documents such that a borrower would not technically default on the loan, reprice the loan such that the lender(s) would receive enhanced economics from the loan (i.e., receive a higher spread along with additional fees), the loan's term would be extended from maturing over the short term to maturing over a longer time horizon, and the lender would require the borrower to inject additional equity into the business to improve the business' liquidity. In addition, in some instances, the form of interest paid on the loans would be changed from cash interest payments to "Paid-In-Kind", or "PIK", interest payments, which are non-cash interest payments that increase the amount owned on the loan. These factors, along with stable business fundamentals, helped private credit loan defaults remain relatively low last year. According to Proskauer's Private Credit Default Index, which tracks senior-secured and unitranche loans in the US, private credit default rates were only 1.6% in 4Q:23, up from 1.4% in 3Q:23, but down from 2.2% in 1Q:23 and flat compared to 1.6% in 2Q:23. All told, the above factors helped the private credit markets perform strongly in the US last year. At the time of this writing, private credit strategies have yet to finalize their 2023 financial reports so aggregate performance of the asset class has yet to be reported. However, using ACERA's Private Credit asset class benchmark (the Morningstar LSTA US Leveraged Loan 100 Index +175 basis points) to approximate the return of the asset class, it clearly shows very strong performance with a 15.3% return in 2023.

The Private Credit asset class also continued to take market share from banks and the syndicated loan market in 2023, continuing a trend that began after the Great Financial Crisis ("GFC"). Prior to the GFC, banks provided a large share of loans to middle-market companies and these loans were held on banks' balance sheets. However, since the GFC, stricter banking regulations have been implemented that has reduced banks' participation in financing loans to middle-market companies and holding these loans on their balance sheets. Moreover, the 2023 failures of Silicon Valley Bank and Signature Bank also caused a general retrenchment in bank lending. Additionally, economic uncertainty and the resulting market volatility over the 2022-2023 period reduced activity in the syndicated loan market, which typically finances larger leveraged-buyout ("LBO") transactions. This reduction in activity, along with building capital in private credit strategies, has allowed private credit to address larger lending opportunities and take a portion from the syndicated loan market as well. According to Bain & Company, in the first nine months of 2023, private credit was responsible for financing 84% of middle market LBOs, up from 34% in 2014 and 63% in 2018.

## ECONOMIC OUTLOOK FOR 2024 AND BEYOND



SOURCE: U.S. BUREAU OF LABOR STATISTICS

Investors in general were cautiously optimistic about the economy as they entered the new year of 2024. Last year's widespread skepticism proved to be misplaced. Stocks rose through much of 2023, powered by the rise of the artificial intelligence play and an economy that stayed stronger than nearly all of Wall Street had anticipated. The recession that investors had largely agreed was imminent never came. Some investors such as bond investors were particularly relieved that the bond market had ended 2023 with an intense year-end bond rally which was induced primarily by a resilient US economy and cooling inflation, after months of pronounced volatilities. Fears of a prolonged stretch of higher interest rates kept driving the 10-year US Treasury yield to decade-plus highs. As the fear of inflation cools, the named yield has fallen a full percentage point since topping 5% in October for the first time in 16 years easing worries that it would further hurt the economy by raising borrowing costs on mortgages, corporate loans and other forms of debts.

The resiliency in the U.S. economy has promoted the growing belief among investors that the Federal Reserve's campaign to fight inflation is winding down, ending the interest rate hikes that disrupted the markets in recent years. Many investors now believe the Federal Reserve will resume rate cuts (up to two of them) starting in June of 2024 – something that was far from investors' minds just a year ago.

Of course, there are still risks on the 2024 horizon such as the much-feared recession is still a possibility especially if the job market starts to weaken and if the consumers begin to tighten their purse strings. What if the Magnificent Seven technology behemoths such as Nvidia, which has multiplied more than eight times, starts to lose steam and turns out to be a big bubble? What if the looming Presidential election in the U.S., and the war in Ukraine which started in February of 2022 and war in Gaza which started in October of 2023 ignite a much bigger conflict in the world? What if the economic future of China which has shown signs of stagnation is actually going into a prolonged stagnation?

China, the world's second largest economy, had experienced a low single digit GDP growth in three out of the last four calendar years with 2023 came in at 5.2% after decades of high single-digit and even double-digit GDP growth. Economists generally expected China to set a goal of around 5% growth in GDP this year, similar to that of 2023, but much lower than what the world had long come to expect. In fact, the IMF has penciled in a 4.8% GDP growth for China for 2024, the lowest in decades apart from the pandemic. Certainly nobody expects China's growth to continue at a double-digit rate forever, but the speed with which China's growth has slowed to levels not far above those of mature developed economies like the U.S., with a forecast GDP growth of 2.1% for the year 2024, has surprised many economists.

There are plenty of challenges that could still roil the market. The primary macroeconomic risk, according to many investors, hinges on the market's biggest assumption that inflation will continue to trend down in a smooth and orderly fashion toward the Fed's 2% target from the current 3.2%.

ACERA's Total Fund is well diversified to weather an economic storm, investing in nine asset classes including about 40% invested in five different private asset classes. We are acutely aware of the not so smooth market environment that we need to navigate continuously to aim to consistently deliver the long-term risk-adjusted investment returns in excess of the long-term actuarial return assumption of 7% as approved by the ACERA Board. We are committed to do so in the long term.

## GENERAL INFORMATION

Institutional investment management firms manage ACERA's assets. Professional investment consultants, along with ACERA's investment staff, closely monitor the activities of these managers and assist the Board with the implementation of investment policies and long-term strategies. ACERA's goal remains to achieve a level of performance that will rank the Fund in the upper quartile of comparable pension funds on a risk-adjusted basis. ACERA also seeks to be as fully funded as possible so that its benefit costs do not become a burden upon future generations of members and taxpayers.

### Summary of ACERA's General Investment Guidelines, Policies and Procedures (General Policy)

The General Policy was last amended and approved in 2022. This Policy can be found at https://www.acera.org/download/general-investment-guidelines-policies-and-procedures

## SUMMARY OF ACERA'S OTHER INVESTMENT - RELATED POLICIES

### Environmental, Social, and Governance (ESG) Investment Policy

In 2021, the ACERA Board approved the Environmental, Social, and Governance (ESG) Policy. There have been no amendments to this Policy since then. The ESG Policy can be found at https://www.acera.org/download/environmental-social-and-governance-esg-investment-policy.

### Private Equity Policy

The Private Equity (PE) Policy was last amended and approved in 2021. The PE Policy can be found at https://www.acera.org/download/private-equity-investment-policy

### Absolute Return Policy

The Absolute Return (AR) Policy was last amended and approved in 2021. The AR Policy can be found at https://www.acera.org/download/absolute-return-policy

### Real Estate Investment Guidelines, Policies, and Procedures (Real Estate Policy)

The Real Estate Policy was last amended and approved in 2021. The Real Estate Policy can be found at https://www.acera.org/download/real-estate-policy

### Emerging Investment Manager Policy

In 2022, the ACERA Board approved amendments to the Emerging Investment Manager (EIM) Policy. This Policy can be found at https://www.acera.org/post/emerging-managers-policy

### Directed Brokerage Policy

The Directed Brokerage was last amended and approved in 2014. There have been no amendments to this Policy since then. This Policy can be found at https://www.acera.org/directed-brokerage-program.

### Real Assets Policy

The Real Assets Policy was last amended and approved in 2020. There have been no amendments to this Policy since then. This Policy can be found at https://www.acera.org/investment-update/real-assets-policy.

### Private Credit Policy

The Private Credit Policy was last amended and approved in 2019. There have been no amendments to this Policy since then. This Policy can be found at https://www.acera.org/download/private-credit-investment-policy.

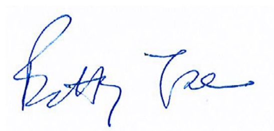
### Proxy Voting Guidelines and Procedures (Proxy Guidelines)

The Proxy Voting Guidelines Policy was last amended and approved in 2023. There have been no amendments to this Policy since then. This Policy can be found at https://www.acera.org/download/public-fund-proxy-voting-guidelines-united-states and https://www.acera.org/download/public-fund-proxy-voting-guidelines-international

## SPECIFIC INVESTMENT RESULTS FOR 2023

In summary, ACERA's Total Fund was up 12.7% and finished 2023 with a market value of $11.3 billion which was about $1 billion higher, after paying for administrative expenses and members' benefits, than when it started the year. In addition, the Total Fund's upper 28th percentile performance amongst our like-size peers for the year, has helped improved the actuarial funded status of our retirement plan to 88% from its previous year's of 86.9%. These are all accomplishments that we all should be proud of!

Respectfully Submitted,



Betty Tse, CPA, CGMA, MBA
Chief Investment Officer,
ACERA
May 28, 2024

# Investment Consultant's Report

Verus

# Memorandum

**To:** Alameda County Employees' Retirement Association
**From:** Verus
**Date:** February 20, 2024
**RE:** 2023 Review and Outlook

***Executive Summary***

*Risk-assets delivered exceptional performance in 2023, a stark contrast from the losses experienced in 2022. While many economists and market strategists called for recession, economic growth proved surprisingly resilient in the face of above-trend inflation and tightening monetary policy. Risk-assets gained further momentum in the last quarter of the year as the "soft landing" narrative was revived. Data releases providing statistics on labor, prices, and economic activity suggested a strong economy, stable job market, and normalizing inflation. These metrics led to signaling from the Federal Reserve of potentially easier monetary policy (i.e., possible forthcoming interest rate cuts), which provided a tailwind to both equities and fixed income.*

*Outside of the U.S., conditions differed across developed and emerging economies. Developed economies continued to struggle with stagnant economic growth, although alleviation of global price pressures allowed central banks to relax their communications and provided a tailwind to risk-assets. In emerging economies, challenges in China remained the headline story, with investor concerns ranging from economic, to geopolitical, to regulatory. While many of these challenges are structural and likely to persist for the medium or long-term, shifting trade patterns have created opportunities for other countries such as India and Vietnam. The broader Emerging markets ex China complex experienced risk-asset performance much more in line with the rest of the globe. Overall, economic resilience was a key theme in 2023, which translated to positive market pricing.*

**U.S. Equity**

Shares in the U.S. experienced a sharp reversal from 2022 to 2023, outperforming both international developed and emerging market equities. The S&P 500 index rose by +26.3% over the calendar year, exceeding expectations as the index value closed in on a new all-time high following double-digit losses in 2022. Innovations in technology and potential monetary easing from the Fed outweighed drags created by the springtime regional banking crisis, potential government shutdown in the fall, and conflict in the Middle East.

Index concentration was a large focus. The S&P 500 Index gains were attributed to a combination of share recovery amongst the largest mega-cap technology companies (i.e., "Magnificent Seven"), and outsized returns across companies exposed to artificial intelligence and accelerated computing. This is apparent when examining a composite of the top ten largest companies in the S&P 500, which saw a +62.3% return over the calendar year. Notable 2023 calendar year returns include Nvidia (+238.9%), Meta (+194.1%), Alphabet (+58.3%) and Microsoft (+56.8%). Differences between the market cap-weighted index and an equal weighted version of the index illuminates the disparate returns of these Magnificent Seven companies and the remaining companies in the index as the S&P 500 Equal Weighted index 2023 returned around half (+13.9%) of the cap-weighted index return.

1

These market return drivers had a material impact on style factor performance during the year. Growth equities handily outperformed value, with the Russell 1000 Growth index returning +42.7%, compared to a +11.5% gain from the Russell 1000 Value. Small-cap equities failed to provide excess relative returns, as the Russell 2000 index's +16.9% return lagged the +26.5% gain from the Russell 1000 index.

Return forecasts for 2024 are more down-to-earth relative to the outsized gains seen over the past calendar year. The median year-end S&P 500 price target across seven of the largest banks sits around 5,000, reflecting a gain of roughly eight percent for the upcoming year. This optimistic outlook blends current pricing and valuations which reflect a greater likelihood for a "soft landing" domestically. While momentum in growth sectors might partly justify these rich valuations, investors should be aware of the large valuation gap that currently exists between U.S. and non-U.S. equity markets.

**International Equity**

International equities also saw a rebound from losses of the prior year in 2023, although both international developed and emerging market equities were unable to match the high returns of U.S. shares. International developed shares outperformed emerging markets, with the MSCI EAFE index notching a +18.2% calendar year return. Emerging market equities continued to be dragged lower by underperformance from Chinese markets, yet the flagship MSCI EM index still finished the year up +9.8%.

Similar to domestic shares, international developed outperformed despite broad expectations of economic weakness. Japanese equities, the largest country weight in the MSCI EAFE index, saw strong performance (TOPIX +19.3% unhedged currency terms, +35.7% hedged currency terms) on continued easy monetary policy from the Bank of Japan (BOJ), shifting investment away from China, and regulatory pushes prioritizing shareholders and corporate reinvestment. Local currency appreciated relative to the U.S. dollar, as the Japanese Yen showed weakness throughout the year driven by the Bank of Japan's divergent monetary policy relative to other G10 currency pairs. In Europe, corporations were largely able to pass through inflation to consumers, providing a stronger than expected earnings cycle (although this pass through is also reflected in poor consumer sentiment across the Eurozone). The STOXX 50 index, a gauge of the largest 50 corporations in the Eurozone, delivered a +26.5% gain in 2023.

Emerging market equities underperformed both U.S. and international developed for a second consecutive year, with poor performance from China remaining a dominant narrative. Poor sentiment rather than fundamentals has been the primary headwind thus far. Tensions remain high with the U.S. and smaller stimulus efforts from the PBOC have done little to ease selling pressures. Larger and more concrete monetary and fiscal policy would likely be a positive catalyst, although above-target 2023 economic growth creates less incentive for aggressive stimulus efforts. A bright spot within emerging market equities, however, was India. The MSCI India index gained +20.8% over the calendar year. India continues to benefit from shifting western trade away from China, while also offering some of the highest economic growth projections from both the IMF and the World Bank (2024 IMF and World Bank GDP Projections: 6.3% and 6.4%, respectively).

**Fixed Income**

Fed policy expectations dominated risk-asset behavior in 2023, as markets oscillated in response to both the "higher for longer" and "soft landing" narratives. Despite small yield changes on a year-over-year comparison (two-year yield movement from 4.43% to 4.25%, ten-year yield movement from 3.87% to 3.88%), volatility was apparent when looking at elevated levels from the ICE BofA MOVE Index as well as ten-year yields hitting 5.00% intra-year in October. This volatility reflected economic uncertainty and the unclear picture which data releases presented.

The Federal Reserve implemented 100 bps of rate hikes early in the calendar year, bringing the upper bound of their target rate from 4.50% to 5.50% - materially less than the 2022 hiking cycle. The Fed's last hike was implemented at their July meeting. FOMC commentary suggested most members were comfortable that the level of rates was sufficiently restrictive. Falling inflation boosted this sentiment, as headline CPI fell from 6.5% to 3.4% over the year. However, distortions caused by the pandemic and pandemic-related stimulus continue to blur the broader macroeconomic outlook and created challenges for central banks. Despite those challenges, most asset classes across the fixed income spectrum ended the year with positive performance.

Core fixed income (Bloomberg U.S. Aggregate) delivered a 5.5% return over the calendar year, recovering some of the losses seen in 2022. From a duration perspective, being shorter on the curve benefitted investors, as the Bloomberg 1-3 Year index rose 4.3% while the Bloomberg U.S. Treasury Long Duration benchmark saw a 3.1% gain (despite an impressive +12.7% return in the fourth quarter). Investors were compensated for risk across the credit spectrum, as high-yield corporate bonds, bank loans, and emerging market debt in both hard and local currency terms delivered double digit returns.

While credit conditions held up in 2023, concerns around valuations and default activity have increased. Credit spreads contracted throughout the year, as high-yield and investment grade option adjusted spreads moved from 469 bps to 323 bps, and from 129 bps to 99 bps, respectively. Default activity also ticked up, as the combined $83.8B of default / distressed exchanges reflected a 75% increase year-over-year, also marking the fourth largest annual total, per J.P. Morgan. While forecasts for default rates in 2024 are only moderately higher, the directionality of default activity combined with current valuations (very low spreads) may justify investor concerns.

**Commodities**

Surging inflation in 2022 coincided with significant commodity outperformance, while almost all risk-assets saw double digit losses. The year 2023 delivered a major reversal in commodities, as global inflation moderated while economic activity showed signs of cooling. The Bloomberg Commodity Index reversed last year's performance, declining -7.9%. While energy markets surged in the third quarter, driven by a 24.3% and 28.5% rise in WTI Crude and Brent prices, respectively, the large jump in oil prices was not sufficient to drive the broader index into positive territory. From a sector perspective, Energy and Grains (the two largest target weights in the basket) dragged the overall index lower, falling -21.6% and -13.0% respectively. Soft and Precious Metals were a bright spot amongst other sub-indices, advancing +18.5% and +9.6%, respectively.

**Currency**

In similar fashion to the volatility seen within the rates market, currency markets also experienced considerable swings throughout the year. While the dollar moved lower on a year-over-year basis (DXY index fell from 103.5 to 101.3), the index ranged from 99.7 to 107. Looking at major currency pairs, the Euro and Pound Sterling both advanced against the dollar during 2023, gaining +3.5% and +6.0%, respectively. The Japanese Yen continued to stand out, weakening by -6.4% against the dollar. Better than expected inflation data sparked speculation around the potential for a "virtuous cycle" in Japan (inflation leading to wage growth and therefore more spending, sparking further price appreciation), raising speculation that the Bank of Japan could move away from its zero-interest rate policy. In a similar tone to last year's letter, these movements proved to be only speculation, leaving the Yen still depressed against the dollar at the end of the year.

**Outlook**

The past year was surprisingly positive for risk-assets, especially when considering initially negative sentiment around global growth . Some similar themes of 2023 may carry forward, as inflation and the path of central banks will likely continue to impact risk-asset performance. Investors face a blurred domestic outlook. Many market "rules of thumb" (ex: inverted yield curves always lead to recession, higher interest rates lead to materially higher unemployment, the Fed rarely successfully engineers a "soft landing", etc.) seem to be challenged by unique aspects of the current environment and may not necessarily prove as prescient as they have been historically. For example, a historical mismatch between worker supply and demand for workers has kept the labor market very tight despite sharply higher interest rates. Inflation has moved much lower, without a recession occurring, since certain aspects of the pandemic such as global supply chain issues contributed to high prices – and many of those problems have been worked out. Businesses and consumers are especially well-capitalized following multiple years of ultra-low interest rates, which has created a cushion against broad-based bankruptcies and financial distress in the current higher rate environment.

While the current snapshot of the economic landscape reflects resilience, domestic equity and credit markets are priced quite optimistically. With valuations elevated, challenges including the commercial real estate market, inflation above the Fed's target, and increased geopolitical tension all remain. Additionally, it is not yet certain that the U.S. economy has escaped credit market stress and other pains that typically follow a sharp rise in interest rates. Recession is still a material possibility. From an international perspective, economic growth remains challenged across most developed markets despite alleviation of price pressures across the Eurozone and the United Kingdom. China continues to face poor demographic trends, a potentially failing property market, a poor consumption rebound post zero-covid policy, and a withdrawal of foreign direct investment. While 2023 was a year that could be best described as a year of resilience, many risks to the outlook remain which will be important to monitor going forward in 2024.

**ACERA 2023 Highlights: Investment Guidelines, Policies, and Initiatives**

Following the 2022 international equity structure review, the initial phase of implementation began in 2023. The asset class was transitioned to the new structure and included a temporary passive emerging markets allocation. This mandate will be eliminated in the future and replaced with a second active emerging markets manager. The fund continued to deploy assets in the private markets asset classes per the respective pacing plans. Otherwise, it was steady as it goes since the Fund's relative results are positive relative to benchmarks and did not necessitate any other adjustments or initiatives save completion of the international equity asset class restructuring activity.

**Investment Objectives**

In a reversal from 2022, the Plan rebounded and outperformed both its benchmark and peer group median in 2023. The total fund returned 12.6% on a net-of-fees basis, outperforming the policy index return of 11.4%. ACERA ranked in the 28th percentile of its peers (Investment Metrics Public DB >$1B) for the calendar year. Active Large Cap and Active management within International Equities, US Fixed Income, International Fixed Income all contributed to outperformance versus the Policy Index. The largest contributor was the outperformance by the Private Equity composite in 2023.

The total fund's 3-year return was 4.9%, net, which ranked in the 35th percentile of its peers, yet lagged the Policy return of 5.2%. Over longer annualized time periods (7- and 10-years), ACERA has ranked in the 26th and 42nd percentile, respectively, versus its peers. The annualized 7- and 10-year returns also met or exceeded ACERA's assumed rate of return of 7.0% as of 12/31/23. Since Inception the plan has a 9.2% annualized rate of return.

During the year, the Plan once again met its goals of complying with applicable fiduciary standards, and of continuously enhancing its investment portfolio. Most importantly, ACERA continues to have the availability of sufficient funds to pay vested benefits and maintain supplemental benefits for its participants.

**Asset Allocation**

| | PERCENTAGE TARGET | 12/31/23 ACTUAL** |
|---|---|---|
| US EQUITY | 24% | 25.5% |
| NON-US EQUITY | 24% | 25.1% |
| FIXED INCOME | 14% | 13.1% |
| REAL ESTATE* | 9% | 6.9% |
| PRIVATE EQUITY* | 11% | 10.0% |
| ABSOLUTE RETURN | 8% | 8.1% |
| REAL ASSETS | 6% | 5.9% |
| PRIVATE CREDIT* | 4% | 2.7% |
| OTHER*** | 0% | 0.2% |
| CASH | 0% | 0.7% |

* ACERA's asset allocation target was adopted by the Board in June 2021. Increases to private markets investments are funded over a multi-year period.
** Total may not add to 100.0% due to rounding
*** "OTHER" Consists of ACERA's allocation to Parametric's Overlay Portfolio

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**Investment Results***

| | 2023 | | THREE YEARS | | FIVE YEARS | |
|---|---|---|---|---|---|---|
| | **ANNUALIZED** | | | | | |
| **TOTAL FUND** | *Net* | *Gross* | *Net* | *Gross* | *Net* | *Gross* |
| ACERA Total Fund | 12.59% | 12.73% | 4.94% | 5.09% | 9.02% | 9.18% |
| Benchmark: Policy Index | 11.44% | | 5.15% | | 9.19% | |
| Median - *InvMetrics Public Defined Benefit > $1B Gross Median* | 11.40% | | 4.44% | | 8.40% | |
| **DOMESTIC EQUITY** | *Net* | *Gross* | *Net* | *Gross* | *Net* | *Gross* |
| Total Domestic Equity | 25.66% | 25.83% | 8.44% | 8.59% | 15.09% | 15.25% |
| Benchmark: Russell 3000 | 25.96% | | 8.54% | | 15.16% | |
| Median - *InvMetrics All Defined Benefit US Equity Gross Median* | 24.18% | | 8.62% | | 14.72% | |
| **INTERNATIONAL EQUITY** | *Net* | *Gross* | *Net* | *Gross* | *Net* | *Gross* |
| Total International Equity | 16.88% | 17.18% | 0.68% | 0.97% | 7.77% | 8.10% |
| Benchmark: MSCI ACWI ex US IMI | 16.21% | | 2.03% | | 7.69% | |
| Median - *InvMetrics All Defined Benefit ex-US Equity Gross Median* | 16.51% | | 1.87% | | 7.90% | |
| **FIXED INCOME** | *Net* | *Gross* | *Net* | *Gross* | *Net* | *Gross* |
| Total Fixed Income | 7.15% | 7.30% | -3.04% | -2.90% | 2.25% | 2.43% |
| Benchmark: Hybrid Index | 6.36% | | -3.76% | | 0.96% | |
| Median - *InvMetrics All Defined Benefit Total Fixed Income Gross Median* | 7.00% | | -1.65% | | 2.22% | |
| **REAL ASSETS** | *Net* | *Gross* | *Net* | *Gross* | *Net* | *Gross* |
| Total Real Assets | 4.18% | 4.26% | 9.61% | 9.73% | 6.61% | 6.72% |
| Benchmark: 5% Bloomberg Commodity/ 60% S&P Global Infrastructure/ 35% S&P Global Large Mid Commodity & Resource | 3.23% | | 8.75% | | 8.52% | |
| **REAL ESTATE (Net)** | | | | | | |
| Total Real Estate (Net) | 5.57% | | 2.47% | | 1.95% | |
| Benchmark: NCREIF ODCE | 5.02% | | 2.15% | | 1.79% | |
| **PRIVATE EQUITY (Net)** | | | | | | |
| Total Private Equity (Net) | 9.31% | | 17.49% | | 14.73% | |
| Benchmark: Refinitiv C\|A Global All PE 1 QTR Lag | 3.23% | | 14.57% | | 14.04% | |
| **PRIVATE CREDIT (Net)** | | | | | | |
| Total Private Credit (Net) | 10.10% | | 8.53% | | - | |
| Benchmark: S&P/LSTA Leveraged Loan Index +1.75% | 15.28% | | 7.65% | | - | |
| **ABSOLUTE RETURN (Net)** | | | | | | |
| Total Absolute Return (Net) | 6.72% | | 9.19% | | 5.66% | |
| Benchmark: HFRI Fund of Funds Composite | 6.32% | | 2.25% | | 5.14% | |
| Median: *InvMetrics All Defined Benefit Hedge Funds Gross Median* | 9.06% | | 5.25% | | 7.01% | |

***NOTE: Returns for periods greater than one year are annualized. Monthly return calculations are time-weighted, and market value based. Results of all publicly traded investments are presented in a format consistent with the CFAI Global Investment Performance Standards®.**

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ACERA's investment strategy continues to meet or exceed expected portfolio returns over longer time periods, both on an absolute and relative basis. Over longer-term annualized periods measured as of year-end 2023, ACERA has achieved its actuarial expected return of 7.0% and has ranked competitively versus other public fund plans. ACERA will continue to follow best practices in decision making for public fund investors to prudently benefit the Plan and its participants and beneficiaries.

Eileen Neill

Eileen Neill, CFA
Managing Director and Senior Investment Consultant
Verus

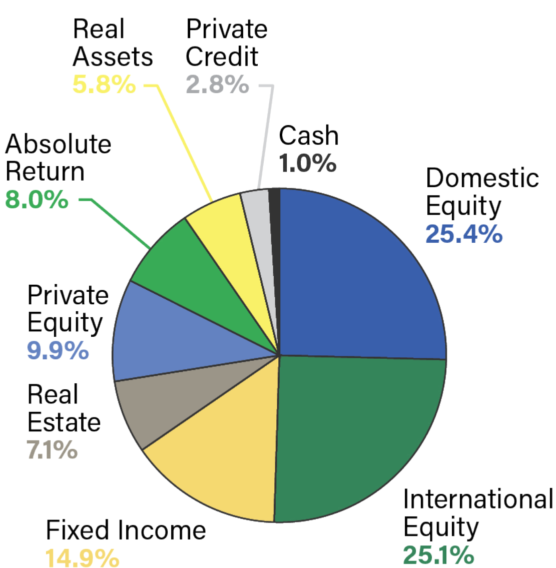
## Asset Allocation

As of December 31, 2023

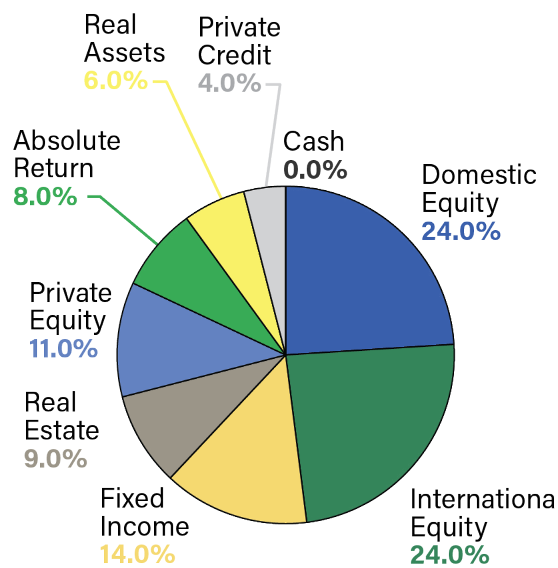
| Investment Asset Class | Actual Asset Allocation[1] | Target Asset Allocation | Actual Allocation Over/ Under Target Allocation |
|---|---|---|---|
| Domestic Equity | 25.4% | 24.0% | 1.4% |
| International Equity | 25.1% | 24.0% | 1.1% |
| Fixed Income | 14.9% | 14.0% | 0.9% |
| Real Estate | 7.1% | 9.0% | -1.9% |
| Private Equity | 9.9% | 11.0% | -1.1% |
| Absolute Return | 8.0% | 8.0% | 0.0% |
| Real Assets | 5.8% | 6.0% | -0.2% |
| Private Credit | 2.8% | 4.0% | -1.2% |
| Cash | 1.0% | 0.0% | 1.0% |
| **Total** | **100.0%** | **100.0%** | **0%** |

1 Based on total investment assets under management including receivable and payable balances as reported on the Statement of Fiduciary Net Position.

### Actual Asset Allocation




### Target Asset Allocation



## Investment Professionals

For the Year Ended December 31, 2023

### INVESTMENT MANAGERS

**Domestic Equities**

- Aristotle Capital Management
- BlackRock Institutional Trust Company, N.A.
- Kennedy Capital Management, Inc.
- TCW Asset Management Company
- William Blair Investment Management, LLC

**International Equities**

- Bivium Capital Partners, LLC
- BlackRock Institutional Trust Company, N.A.
- Capital Group Institutional Investment Services
- Franklin Templeton Institutional
- William Blair Investment Management, LLC

**Fixed Income**

- Baird Advisors
- Brandywine Global Investment Management, LLC
- Loomis, Sayles & Company, L.P.

**Cash Overlay**

- Parametric Portfolio Associates LLC

### REAL ESTATE (SEPARATE & COMMINGLED FUNDS)

- AEW Capital Management
- Angelo, Gordon & Co.
- Artemis Real Estate Partners
- CBRE Investment Management
- CIM Group
- Heitman Capital Management
- J.P. Morgan Asset Management
- Jamestown Premier Property
- Lion Trust Asset Management
- MetLife Investment Management
- Prudential Real Estate Investors
- RREEF America, LLC
- Starwood Capital Group
- UBS Realty Investors LLC

### PRIVATE EQUITY

- ABRY Partners, LLC
- Altas Partners
- Angeles Equity Partners
- Angelo, Gordon, & Co.
- Audax Group, L.P.
- Avista Capital Partners
- Bernhard Capital Partners Management, LP
- Bridgepoint Credit Limited
- Canvas Ventures
- CapVest Equity Partners
- Catalyst Fund Limited Partnerships
- Centerbridge Partners, L.P.
- Clayton, Dubilier & Rice, LLC
- Crestline Partners
- Davidson Kempner
- General Catalyst Partners
- Genstar Capital
- Great Hill Partners
- Gridiron Capital
- Insight Equity
- JLL Partners
- Khosla Ventures
- KPS Capital Partners, L.P.
- New Enterprise Associates
- Oak Hill Advisors, L.P.
- Partners Group
- Peak Rock Capital, LLC
- Strategic Value Partners
- Summit Partners
- Sycamore Partners
- Third Rock Ventures
- Vista Equity Partners
- Warburg Pincus, LLC

### REAL ASSETS

- Brookfield
- CIM Group
- EQT Partners
- I Squared Capital Advisors, LLC
- LS Power Equity Advisors, LLC
- Quantum Energy Partners
- State Street Global Advisors
- Taurus Fund Management Pty Limited
- Tiger Infrastructure Partners
- Vision Ridge Partners, LLC
- Warburg Pincus Energy, LLC

### ABSOLUTE RETURN

- Angelo, Gordon & Co.
- Blackstone Alternative Solutions, LLC
- Global Strategy LLC (P/E Investments)
- Lighthouse Strategic Alpha
- Morgan Stanley - Riverview Strategic Alpha
- Neuberger Berman (DYAL)

### PRIVATE CREDIT

- Ares Management Corporation
- BlackRock
- HPS Investment Partners, LLC
- Monroe Capital Management Advisors LLC
- Owl Rock Capital Partners

### INVESTMENT CONSULTANTS

- Abel Noser Solutions – (Trading Cost & Directed Brokerage)
- Callan LLC – (Real Estate Investment)
- Capital Institutional Services – (Third-Party Directed Brokerage Administrator)
- Institutional Shareholder Services – (Proxy Voting)
- Parametric Portfolio Associates LLC (Rebalancing Consultant)
- Verus Advisory, Inc – (General Investment and Private Equity and Alternatives)
- NEPC, LLC

### CUSTODIAL AND SECURITIES LENDING BANK

- State Street Bank and Trust Company

## Investment Summary

As of December 31, 2023 (Dollars in Thousands)

| Investment Asset Class | Fair Value | Percentage of Total Fair Value |
|---|---|---|
| Short-Term Investments | $ 196,147 | 1.75% |
| Domestic Securities | 626,628 | 5.58% |
| International Securities | 787,281 | 7.01% |
| Domestic & Int'l Equity Commingled Funds | 4,321,261 | 38.47% |
| Fixed Income Securities | 1,514,774 | 13.48% |
| Real Estate - Separate Properties | 48,282 | 0.43% |
| Real Estate - Commingled Funds | 756,421 | 6.73% |
| Private Equity | 1,114,713 | 9.92% |
| Private Credit | 308,413 | 2.75% |
| Absolute Return | 902,059 | 8.03% |
| Real Return Pool | 657,542 | 5.85% |
| **Total Investments at Fair Value** | **$ 11,233,521** | **100.00%** |

This schedule excludes Investment receivable and payable balances as of December 31, 2023.

## Brokerage Commissions

For the Year Ended December 31, 2023

| Brokerage Firm | Rank | Commissions (in Thousands) | Shares/Par Value Traded (in Thousands) | Commission Per Share |
|---|---|---|---|---|
| Northern Trust Company | 1 | $ 158 | 7,703 | $ 0.021 |
| Goldman Sachs & Co. | 2 | 125 | 4,877 | 0.026 |
| Merrill Lynch & Co Inc. | 3 | 117 | 34,077 | 0.003 |
| JP Morgan Securities Inc. | 4 | 93 | 9,962 | 0.009 |
| UBS Securities LLC | 5 | 72 | 20,824 | 0.003 |
| Morgan Stanley Co Inc. | 6 | 42 | 12,200 | 0.003 |
| Instinet LLC | 7 | 38 | 15,122 | 0.003 |
| Citibank International PLC | 8 | 38 | 7,161 | 0.005 |
| Citigroup Global Markets Inc. | 9 | 32 | 24,749 | 0.001 |
| Clsa Securities Ltd. | 10 | 28 | 13,337 | 0.002 |
| Avior Capital Markets Int Ltd. | 11 | 28 | 238 | 0.118 |
| Daiwa Securities Co. Ltd. | 12 | 20 | 3,723 | 0.005 |
| Jefferies International Ltd. | 13 | 18 | 2,200 | 0.008 |
| Liquidnet Inc. | 14 | 18 | 1,091 | 0.016 |
| Virtu Americas LLC. | 15 | 16 | 3,440 | 0.005 |
| National Financial Services LLC. | 16 | 12 | 613 | 0.020 |
| Robert W. Baird Co. Incorporated | 17 | 11 | 718 | 0.015 |
| BOFA Securities, Inc. | 18 | 11 | 434 | 0.025 |
| BNP Paribas Securities Services | 19 | 8 | 6,741 | 0.001 |
| Capital Institutional Services Inc. Equities | 20 | 8 | 435 | 0.018 |
| **Top 20 Firms by Commission Dollars** | | **893** | **169,645** | **0.005** |
| All Other Brokerage Firms | | 154 | 24,320 | 0.006 |
| **Total Brokerage Commissions** | | **1,047** | **193,965** | **0.005** |
| Brokerage Commission Recapture | | (7) | - | - |
| **Net Brokerage Commission** | | **$ 1,040** | **193,965** | **$ 0.005** |

## Investment Manager Fees

For the Year Ended December 31, 2023 (Dollars in Thousands)

| Investment Asset Class | | 2023 |
|---|---|---|
| Domestic Equity | $ | 5,216 |
| International Equity | | 5,737 |
| Fixed Income | | 2,552 |
| Real Estate | | 12,143 |
| Private Equity | | 14,778 |
| Absolute Return | | 7,268 |
| Real Assets | | 5,290 |
| Private Credit | | 8,522 |
| Cash Overlay | | 210 |
| **Total Investment Manager Fees** | **$** | **61,716** |

## Investment Assets Under Management (Fair Value)

As of December 31, 2023 (Dollars in Thousands)

| Investment Asset Class | | 2023 |
|---|---|---|
| Domestic Equity | $ | 2,863,208 |
| International Equity | | 2,826,634 |
| Fixed Income | | 1,674,248 |
| Real Estate | | 804,703 |
| Private Equity | | 1,114,713 |
| Absolute Return | | 902,059 |
| Real Assets | | 657,542 |
| Private Credit | | 308,413 |
| Cash | | 108,121 |
| **Total Investment Assets Under Management** | **$** | **11,259,641** |

This schedule includes investment receivable and payable balances as of December 31, 2023.

## Largest Stock Holdings[1]

As of December 31, 2023 (Dollars in Thousands)

| Rank | Shares | Issuer | Fair Value | Percentage of Holdings |
|---|---|---|---|---|
| 1 | 242,083 | NOVO NORDISK A/S B | $ 25,043 | 1.771% |
| 2 | 29,806 | ASML HOLDING NV | 22,445 | 1.587% |
| 3 | 53,198 | MICROSOFT CORP | 20,005 | 1.415% |
| 4 | 26,694 | NVIDIA CORP | 13,219 | 0.935% |
| 5 | 26,249 | L OREAL | 13,067 | 0.924% |
| 6 | 82,168 | AIRBUS SE | 12,687 | 0.897% |
| 7 | 15,257 | LVMH MOET HENNESSY LOUIS VUI | 12,364 | 0.874% |
| 8 | 103,113 | NESTLE SA REG | 11,946 | 0.845% |
| 9 | 85,816 | ASTRAZENECA PLC | 11,596 | 0.820% |
| 10 | 19,090 | ADOBE INC | 11,389 | 0.805% |
| **Total of Largest Stock Holdings** | | | **153,761** | **10.87%** |
| **Total Stock Holdings** | | | **$ 1,413,909** | **100.00%** |

1 The Holdings Schedules pertain to holdings of individual securities; they do not reflect ACERA's investments in commingled funds. A complete list of portfolio holdings is available upon request.

## Largest Bond Holdings[1]

As of December 31, 2023 (Dollars in Thousands)

| Rank | Shares | Issuer | Maturity Date | Interest Rate | Fair Value | Percentage of Holdings |
|---|---|---|---|---|---|---|
| 1 | 33,400,000 | US TREASURY N/B | 12/31/2029 | 3.875% | $ 33,341 | 2.201% |
| 2 | 43,075,000 | US TREASURY N/B | 11/15/2040 | 1.375% | 28,579 | 1.887% |
| 3 | 29,975,000 | US TREASURY N/B | 10/31/2026 | 1.125% | 27,660 | 1.826% |
| 4 | 35,500,000 | US TREASURY N/B | 2/15/2045 | 2.500% | 26,882 | 1.775% |
| 5 | 25,585,000 | US TREASURY N/B | 2/15/2033 | 3.500% | 24,811 | 1.638% |
| 6 | 27,375,000 | US TREASURY N/B | 5/15/2043 | 2.875% | 22,472 | 1.484% |
| 7 | 26,625,000 | US TREASURY N/B | 8/15/2031 | 1.250% | 22,031 | 1.454% |
| 8 | 20,350,000 | US TREASURY N/B | 8/15/2026 | 4.375% | 20,487 | 1.352% |
| 9 | 21,400,000 | US TREASURY N/B | 3/31/2029 | 2.375% | 19,867 | 1.312% |
| 10 | 21,225,000 | US TREASURY N/B | 8/31/2028 | 1.125% | 18,739 | 1.237% |
| **Total of Largest Bond Holdings** | | | | | **244,869** | **16.17%** |
| **Total Bond Holdings** | | | | | **$ 1,514,774** | **100.00%** |

1 A complete list of portfolio holdings is available upon request.

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# Actuarial

# Actuary's Certification Letter – Pension Plan

Segal

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

June 7, 2024

Board of Retirement
Alameda County Employees' Retirement Association
475 14th Street, Suite 1000
Oakland, California 94612-1900

**Re: Alameda County Employees' Retirement Association**
**December 31, 2022 Actuarial Valuation of the Statutory Retirement Plan Benefits for Funding Purposes**

Dear Members of the Board:

Segal prepared the December 31, 2022 actuarial valuation of the statutory Retirement Plan benefits of the Alameda County Employees' Retirement Association (ACERA) for funding purposes. We certify that the valuation was performed in accordance with generally accepted actuarial principles and practices and ACERA's funding policy that was adopted by the Board on September 18, 2014 (and revised by the Board on October 21, 2021).* In particular, it is our understanding that the assumptions and methods used for funding purposes meet the parameters set by Actuarial Standards of Practice (ASOPs). (A discussion of the assumptions and methods used in the separate December 31, 2023 actuarial valuation for financial reporting purposes under Governmental Accounting Standards Board (GASB) Statement No. 67 is presented at the end of this letter.)

## December 31, 2022 actuarial valuation for funding purposes

Actuarial valuations are performed on an annual basis with the last valuation completed as of December 31, 2022. The actuarial calculations presented in the valuation report have been made on a basis consistent with our understanding of the historical funding methods used in determination of the liability for statutory retirement benefits.

The December 31, 2022 actuarial valuation is based on the plan of benefits verified by ACERA and on participant and financial data provided by ACERA. Segal conducted an examination of all participant data for reasonableness and we concluded that it was reasonable and consistent with the prior year's data. Summaries of the employee data used in performing the actuarial valuations over the past several years are provided in our valuation report.

We did not audit the Association's financial statements. For actuarial valuation purposes, Retirement Plan assets are valued at actuarial value. Under this method, the assets used to determine employer contribution rates take into account fair (or market) value by recognizing the differences between the total return at fair value and the expected investment return over 10 six-month periods.

* The October 2021 changes were reflected in the December 31, 2021 actuarial valuation.

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One funding objective of the Plan is to establish rates, which, over time, will remain level as a percentage of payroll unless Plan benefit provisions are changed. Actuarial funding is based on the Entry Age Cost Method. Under this method, the employer contribution rate provides for current cost (normal cost) plus a level percentage of payroll to amortize any unfunded actuarial accrued liability (UAAL). With the exception of the UAAL for the Alameda County Office of Education (ACOE), the UAAL is amortized as a level percentage of payroll using a layered approach. Prior to January 1, 2012, the total UAAL was amortized on a 30-year decreasing period, with 21 years remaining as of December 31, 2011 (and 10 years remaining as of December 31, 2022). On or after January 1, 2012, any new UAAL resulting from plan amendments are amortized over separate decreasing 15-year periods; early retirement incentive programs (ERIPs) are amortized over separate decreasing 5-year periods; assumption and method changes are amortized over separate decreasing 20-year periods; and experience gains/losses are also amortized over separate decreasing 20-year periods. For ACOE, their UAAL is amortized as a level dollar amount under the declining employer payroll policy. The Voluntary County Safety UAAL Contributions are amortized over a 13-year period effective July 1, 2021. The Voluntary Livermore Area Recreation and Park District (LARPD) General UAAL Contributions are amortized over a 16-year period effective July 1, 2021. Effective December 31, 2022, the existing LARPD General UAAL layers are amortized over 14.5 years.[1] The progress being made towards meeting the funding objective through December 31, 2022 is illustrated in the Schedule of Funding Progress.

Segal prepared all of the supporting schedules in the actuarial section of the Association's Annual Comprehensive Financial Report ("Annual Report" or ACFR) based on the results of the December 31, 2022 actuarial valuation for funding purposes. A listing of the supporting schedules related to the statutory retirement plan benefits that Segal prepared for inclusion in the actuarial and statistical sections of the Association's Annual Report is provided below. ACERA's staff prepared the remaining trend data schedules in the statistical section.

## Actuarial Section (for Funding Purposes)

| | |
|---|---|
| Exhibit 1 | Schedule of Active Member Valuation Data;[2] |
| Exhibit 2 | Retirees and Beneficiaries Added to and Removed from Retiree Payroll;[2] |
| Exhibit 3 | Schedule of Funded Liabilities by Type; |
| Exhibit 4 | Actuarial Analysis of Financial Experience by Plan Year; |
| Exhibit 5 | Schedule of Funding Progress; |

## Statistical Section (for Funding Purposes)

| | |
|---|---|
| Exhibit 6 | Schedule of Average Benefit Payments for Retirees and Beneficiaries;[2] |
| Exhibit 7 | Schedule of Participating Employers and Active Members Statistics;[2] |
| Exhibit 8 | Schedule of Benefit Expenses by Type;[2] |
| Exhibit 9 | Schedule of Retired Members by Type of Benefit and Option Selected;[2] and |
| Exhibit 10 | Employer Contribution Rates. |

[1] The LARPD General cost sharing group has a surplus of $829,000 on a Valuation Value of Assets (VVA) basis as of December 31, 2022. In order to calculate the proper offset available to LARPD from the LARPD General UAAL Advance Reserve, we have amortized the new LARPD experience gain layer over 14.5 years so that it will have the same amortization period as the LARPD General UAAL Advance Reserve (14.5 years remaining as of December 31, 2022).

[2] As permitted by the Actuarial Standard of Practice No. 4 (Measuring Pension Obligations), Segal has utilized participant data provided by ACERA as of November 30, 2022 with age and years of service adjusted to December 31, 2022 in calculating the liabilities for the December 31, 2022 valuation.

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## Actuarial assumptions for funding valuation

There have been no changes in the actuarial assumptions since the last valuation. The non-economic valuation assumptions included in the Actuarial Section were adopted by the Retirement Board based on our recommendations following the November 30, 2019 Experience Analysis. The Board adopted a 7.00% investment return assumption for the December 31, 2022 valuation. The other changes in economic assumptions were documented in our November 30, 2019 Actuarial Experience Study report.

As we disclosed in our December 31, 2022 funding valuation report, the 7.00% investment return assumption that the Board approved for determining the liabilities for funding purposes and used for establishing the employer and employee contribution rates was developed without considering the impact of any future 50/50 excess earnings allocation. This is based on our understanding that Article 5.5 of the Statute, which authorizes the allocation of 50% of excess earnings to the SRBR, does not allow for the use of a different investment return for funding than is used for interest crediting. This would appear in effect to preclude the prefunding of the SRBR through the use of an assumption lower than the market earnings assumption of 7.00%.

As required by the Actuarial Standard of Practice (ASOP) No. 4 ("Measuring Pension Obligations and Determining Pension Plan Costs or Contributions"), we performed a stochastic model, as detailed in our November 30, 2019 Experience Study report, to estimate the impact of the 50% allocation of future excess earnings to the SRBR. The results of our model indicated that the 50/50 allocation of future excess earnings would have about the same impact as an "outflow" (i.e., assets not available to fund the benefits included in the funding valuation) that would average approximately 0.65%[1] of assets over time. For informational purposes only, when we applied the results of our stochastic model to this valuation, we estimated that such an annual outflow would increase the Actuarial Accrued Liability (AAL) measured in this valuation using a 7.00% investment return assumption from $11.42 billion to $12.33 billion (for a difference of $0.91 billion) and would increase the employer's contribution rate by about 5% - 6% of payroll.[2]

It is our opinion that the assumptions used in the December 31, 2022 valuation produce results, which, in aggregate, reflect the future experience of the statutory Retirement Plan. An experience analysis is performed every three years, and the actuarial assumptions adopted by the Board resulting from the experience analysis performed as of November 30, 2019 first became effective in the valuation as of December 31, 2020. The next experience analysis was performed as of November 30, 2022, and the assumptions adopted from that study would first become effective in the valuation as of December 31, 2023.

[1] In estimating the impact of any future 50/50 excess earnings allocation, we have not included the deferred investment gains/losses available as of the date of the valuation. We believe that the determination of the 0.65% average outflow should provide the stakeholders with information about the long-term effect of the 50/50 excess earnings allocation and therefore should not be unduly affected by the short-term fluctuation in the 50/50 excess earnings allocation due to the actual deferred investment gains/losses available as of the valuation date.

[2] For employers with active member payroll.

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## Valuation results

In the December 31, 2022 valuation, the ratio of the valuation assets to actuarial accrued liabilities (funded percentage) increased from 86.5% to 86.9%. The average employer rate[1] increased from 23.39% of payroll to 23.74% of payroll, while the average employees' rate increased from 10.03% of payroll to 10.08% of payroll. The increase in the funded percentage was the result of the expected increase due to contributions made to pay down the unfunded liability offset somewhat by the loss due to higher than expected cost-of-living adjustments for continuing retirees, higher than expected salary increases for active members, the loss on the Valuation Value of Assets from the recognition of past and current years' investment losses after smoothing, and the loss due to actual contributions less than expected.[2] The increase in the average employer contribution rate was primarily due to higher than expected cost-of-living adjustments for continuing retirees, higher than expected salary increases for active members, and the lower than expected return on investments after smoothing, offset somewhat by the effect of amortizing the prior year's UAAL over a larger than expected total projected payroll.

Under the actuarial value of assets method, the total unrecognized net investment loss as of December 31, 2022 is $794.1 million. This net investment loss will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years, and will offset any investment gains that may occur after December 31, 2022. This implies that if the Association earns the assumed net rate of investment return of 7.00% per year on a fair value basis, it will result in investment losses on the actuarial value of assets in the next few years. So, if the actual market return is equal to the assumed 7.00% rate and all other actuarial assumptions are met, the contribution requirements would generally increase in the next few years.

The net deferred loss of $794.1 million represents 7.7% of the fair value of assets as of December 31, 2022. Unless offset by future investment gains or other favorable experience, the recognition of the $794.1 million deferred market loss is expected to have an impact on the Association's future funded percentage and contribution rate requirements. Under an approach which takes into account the size of the valuation and the SRBR reserves, this potential impact may be illustrated as follows:

- If a proportion of the net deferred loss that is commensurate with the size of the valuation reserves were recognized immediately in the valuation value of assets, the funded percentage would decrease from 86.9% to 80.7%.
- If a proportion of the net deferred loss that is commensurate with the size of the valuation reserves were recognized immediately in the valuation value of assets, the average employer rate[1] would increase from 23.74% to about 28.1% of payroll.

To the best of our knowledge, the December 31, 2022 funding valuation report is complete and accurate and in our opinion presents the Plan's current funding information.

[1] For employers with active member payroll.

[2] Including scheduled lag in implementing contribution rates after the date of the valuation.

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## December 31, 2023 GASB Statement 67 actuarial valuation for financial reporting purposes

Segal also prepared the December 31, 2023 GASB Statement 67 actuarial valuation for financial reporting purposes. The valuation was performed in order to comply with GASB Statement 67 and we certify that the assumptions and methods used for financial reporting purposes meet the parameters set by ASOPs and our understanding of generally accepted accounting principles (GAAP) applicable in the United States of America as promulgated by GASB. The GASB rules only define pension liability and expense for financial reporting purposes, and do not apply to contribution amounts for pension funding purposes.

When measuring pension liability, GASB uses the same actuarial cost method (Entry Age) and the same type of discount rate (expected return on assets) as ACERA uses for funding. This means that the Total Pension Liability (TPL) measure for financial reporting is determined on generally the same basis as ACERA's AAL measure for funding. The Net Pension Liability (NPL) is equal to the difference between the TPL and the Plan's Fiduciary Net Position. The Plan's Fiduciary Net Position is equal to the fair value of assets and therefore, the NPL measure is very similar to a UAAL calculated on a fair value basis.

As stated in the funding valuation subsection herein entitled Actuarial Assumptions for Funding Valuation, the investment return assumption used in the funding valuation excludes the impact of any future 50/50 excess earnings allocation to the SRBR. For the December 31, 2022 funding valuation, the investment return assumption adopted by the Board was 7.00%, as noted earlier. For the December 31, 2023 funding valuation, the Board carried forward the 7.00% investment return assumption resulting from the November 30, 2022 experience analysis, and that assumption was also used for the December 31, 2023 GASB 67 valuation discussed in this section. In order to estimate the impact of the 50% allocation of future excess earnings to the SRBR for the December 31, 2023 valuation, we used our stochastic model, and the results of our model indicated that the 50% allocation would have about the same impact as an "outflow" (i.e., assets not available to fund the benefits included in the determination of the TPL) that would average approximately 0.75% of assets over time. For financial reporting purposes, we have taken the 0.75% "outflow" and incorporated that into our GASB crossover test (Appendix A in the GASB Statement 67 valuation report)* along with the additional future employer contributions that would result from those future allocations of excess earnings to the SRBR under ACERA's funding policy. (The choice of this methodology by the Board in 2015 to reflect the impact of the SRBR was a result of several meetings with ACERA and its auditors, as well as with administrative staff, auditors, and consultants representing the County of Alameda, and after twice consulting with GASB staff.)

The NPLs measured as of December 31, 2023 and 2022 were determined by rolling forward the TPLs as of December 31, 2022 (calculated under the new actuarial assumptions and plan provisions effective for the December 31, 2023 valuation) and December 31, 2021, respectively. The TPL for the funded benefits is $11,760.9 million as of December 31, 2023, which was

* The purpose of the GASB crossover test is to determine if the full expected return (or 7.00% in this case) can be used as the discount rate to determine the TPL and the NPL. That is, if there is no crossover point where the projected benefit payments would exceed the plan's fiduciary net position, then the full expected return assumption can be used. As detailed in the GASB Statement 67 valuation report, ACERA does pass the crossover test, which means that the full 7.00% investment rate of return assumption can be used as the discount rate to determine the TPL and the resulting NPL.

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calculated by rolling forward the AAL for the funded benefits as of December 31, 2022 that was calculated under the new actuarial assumptions and plan provisions effective for the December 31, 2023 valuation. Similar to last year, we have included in the total TPL as of December 31, 2023 the non-OPEB SRBR **unlimited** AAL of $200.3 million related to the non-vested Supplemental COLA and retired member death benefit, which was calculated by revaluing the non-OPEB SRBR unlimited AAL as of December 31, 2022 to include the new actuarial assumptions effective for the December 31, 2023 valuation and rolling forward the results from December 31, 2022 to December 31, 2023.

It should be noted that as of December 31, 2023, the deferred investment loss for the entire Plan was $292.8 million. After offsetting this loss by the balance in the Contingency Reserve, the residual loss was $256.1 million. Generally speaking, the proportionate share of the net deferred investment loss as of December 31, 2023 for the Pension Plan was equal to $233.2 million, and in calculating the Plan's Fiduciary Net Position we have adjusted the Pension Plan's valuation value of assets of $10,342.5 million in the funding valuation to reflect that amount. The Plan's Fiduciary Net Position related to the funded benefit is $10,109.3 million as of December 31, 2023.

We have continued the practice of adjusting the Plan's Fiduciary Net Position as of December 31, 2023 to include the $111.3 million[1] set aside by the Retirement Board in the SRBR reserve to pay non-OPEB SRBR as of December 31, 2023.[2] We have subtracted from the Plan's Fiduciary Net Position the proportionate share of the net deferred investment loss that is commensurate with the size of the non-OPEB SRBR reserve, or $2.1 million. The net effect of the adjustments to the Plan's Fiduciary Net Position as of December 31, 2023 for non-OPEB SRBR benefits was an addition of $109.2 million.

The $1,651.6 million difference between the $11,760.9 million of TPL for the funded benefits and the net $10,109.3 million of Plan's Fiduciary Net Position related to the funded benefit as of December 31, 2023 represents the NPL attributable to the funded benefits. The $91.1 million difference between the $200.3 million added to the TPL and the net $109.2 million added to the Plan's Fiduciary Net Position as of December 31, 2023 represents the NPL attributable to the non-OPEB SRBR benefits. The total NPL as of December 31, 2023 is therefore $1,742.7 million.

Note number 5 to the Basic Financial Statements and the Required Supplementary Information included in the Financial Section of the Annual Report were prepared by the Association based on the results of the GASB Statement No. 67 actuarial valuation as of December 31, 2023 prepared by Segal.

This document has been prepared for the exclusive use and benefit of the Board of Retirement of the Alameda County Employees' Retirement Association, based upon information provided by ACERA or otherwise made available to Segal at the time this document was created. Segal makes no representation or warranty as to the accuracy of any forward-looking statements and does not guarantee any particular outcome or result. Except as may be required by law, this

[1] This includes $54.2 million transferred from the OPEB SRBR to the non-OPEB SRBR approved by the Board on March 21, 2024 to equalize the sufficiency periods for OPEB and non-OPEB SRBR benefits.

[2] We have excluded the liability and the assets associated with the OPEB component of the SRBR reserve account because it is our understanding that those amounts are reportable under GASB 74/75.

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The undersigned are members of the American Academy of Actuaries and meet the qualification requirements to render the actuarial opinion contained herein.

Sincerely,

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

Eva Yum, FSA, EA, MAAA
Vice President and Actuary

ST/bbf
Enclosures

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Segal

# Actuary's Certification Letter – SRBR

Segal

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June 7, 2024

Board of Retirement
Alameda County Employees' Retirement Association
475 14th Street, Suite 1000
Oakland, California 94612-1900

**Re: Alameda County Employees' Retirement Association
December 31, 2022 actuarial valuation of the discretionary SRBR benefits for sufficiency purposes**

Dear Members of the Board:

Segal prepared the December 31, 2022 actuarial valuation of the discretionary benefits provided through the Supplemental Retiree Benefits Reserve (SRBR) of the Alameda County Employees' Retirement Association (ACERA) for sufficiency purposes. We certify that the valuation was performed in accordance with generally accepted actuarial principles and practices. In particular, it is our understanding that the assumptions and methods used for sufficiency purposes with regard to the Other Postemployment Benefits (OPEB) and non-OPEB benefits provided by the SRBR meet the parameters set by Actuarial Standards of Practice (ASOPs).

A discussion of the assumptions and methods used in the separate December 31, 2023 actuarial valuation for financial reporting purposes under GASB Statement No. 74 for the discretionary OPEB benefits provided by the SRBR is presented on page 4 of this letter. In addition, we have also provided a discussion of the assumptions and methods used for financial reporting purposes under GASB Statement No. 67 for the statutory Retirement Plan benefits and the discretionary non-OPEB benefits provided by the SRBR at the end of our actuarial certification letter pertaining to the statutory Retirement Plan benefits dated June 7, 2024. The pertinent GASB Statement No. 67 information from that letter pertaining to the non-OPEB benefits provided by the SRBR is also provided herein.

## December 31, 2022 actuarial valuation for sufficiency purposes

Actuarial valuations are performed on an annual basis with the last valuation completed as of December 31, 2022. The actuarial calculations were based upon the benefits provided under the terms of the substantive plan in effect at the time of the December 31, 2022 valuation. The December 31, 2022 actuarial valuation is based on the plan of benefits verified by ACERA and on participant, premium, and financial data provided by ACERA. Segal conducted an examination of all participant data for reasonableness and we concluded that it was reasonable

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and consistent with the prior year's data. A summary of the average OPEB for new retired members, by years of service, is attached as Exhibit 4.

We did not audit the Association's financial statements. For the actuarial valuation for sufficiency purposes, SRBR assets are valued at actuarial value. Under this method, the assets used to determine the liabilities of the SRBR and the number of years the SRBR can continue to pay its current level of benefits (i.e., the sufficiency) take into account fair value by recognizing the differences between the total return at fair value and the expected investment return over 10 six-month periods. It should be noted that under the actuarial value of assets method, the total unrecognized net investment loss as of December 31, 2022 is $794.1 million. This net investment loss will be recognized in the determination of the actuarial value of assets in the next few years (i.e., deferred), and it will offset any investment gains that may occur after December 31, 2022.

The discretionary benefits provided through the SRBR include OPEB and non-OPEB. Benefits classified under OPEB include postretirement medical, dental, and vision benefits. Benefits classified under non-OPEB include supplemental COLAs and retired member death benefits.

For valuation purposes, the total cost of providing future postemployment benefits is projected, using actuarial assumptions that are common for both the statutory retirement and the discretionary SRBR benefits (e.g. turnover, mortality, disability, retirement, etc.), and assumptions that are unique to the discretionary SRBR OPEB (e.g., health care trend assumptions, etc.). The liabilities associated with providing non-OPEB SRBR benefits are disclosed together with the statutory Retirement Plan benefits under GASB 67. The liabilities associated with providing OPEB SRBR benefits are disclosed under GASB 74.

Based on the actuarial value of assets available as of December 31, 2022, the SRBR would only be able to pay benefits until 2050 for OPEB and until 2038 for non-OPEB. As noted above, the Association had deferred investment losses of $794.1 million that were not yet recognized in determining the combined actuarial value of assets for the Retirement Plan and the SRBR Plan as of December 31, 2022. The deferred losses of $794.1 million represent 7.7% of the fair value of assets as of December 31, 2022, and when recognized will decrease the rate of return on the actuarial value of assets over the next few years, which may shorten the sufficiency period of the SRBR.

Segal prepared all of the supporting schedules in the actuarial section of the Association's Annual Comprehensive Financial Report ("Annual Report" or ACFR) based on the results of the December 31, 2022 actuarial valuation for sufficiency purposes. A listing of the supporting schedules related to the discretionary SRBR benefits that Segal prepared for inclusion in the actuarial and statistical sections of the Association's Annual Report is provided below. ACERA's staff prepared the remaining trend data schedules in the statistical section.

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## Actuarial Section (for Sufficiency Purposes)

| | |
|---|---|
| Exhibit 1 | Schedule of Active Member Valuation Data;* |
| Exhibit 2 | Retirees Added to and Removed from OPEB Payroll;* |
| Exhibit 3 | Member Benefit Coverage Information (OPEB) and Schedule of Funded Liabilities by Type (non-OPEB); and |

## Statistical Section (for Sufficiency Purposes)

| | |
|---|---|
| Exhibit 4 | Schedule of Average Other Postemployment Benefits (OPEB) By Years of Service. |

The non-economic valuation assumptions included in the Actuarial Section were adopted by the Retirement Board based on our recommendations following the November 30, 2019 Experience Analysis and specific health care related assumptions recommended for the December 31, 2022 SRBR valuation. The Board adopted a 7.00% investment return assumption for the December 31, 2022 valuation. The other changes in economic assumptions were documented in our November 30, 2019 Actuarial Experience Study report. Note that the investment return assumption for sufficiency purposes was developed without taking into consideration the impact of the 50/50 excess earnings allocation between the statutory retirement and SRBR asset pools.

The actuarial assumptions common to both the statutory retirement and discretionary SRBR benefits are provided in the Actuarial Section. Additional assumptions specific to the OPEB are included as an attachment to this letter (Schedule of Actuarial Assumptions). It is our opinion that the assumptions used in the December 31, 2022 valuation produce results, which, in aggregate, reflect the future experience of the SRBR. An experience analysis is performed every three years, and the actuarial assumptions adopted by the Board resulting from the experience analysis performed as of November 30, 2019 first became effective in the valuation as of December 31, 2020. The next experience analysis was performed as of November 30, 2022, and the assumptions adopted from that study would first become effective in the valuation as of December 31, 2023.

To the best of our knowledge, the December 31, 2022 valuation report is complete and accurate and in our opinion presents the Plan's current sufficiency information.

* As permitted by the Actuarial Standard of Practice No. 4 (Measuring Pension Obligations), Segal has utilized participant data provided by ACERA as of November 30, 2022 with age and years of service adjusted to December 31, 2022 in calculating the liabilities for the December 31, 2022 valuation.

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## December 31, 2023 GASB Statement No. 74 actuarial valuation for financial reporting purposes for the discretionary OPEB benefits provided by the SRBR

Segal also prepared the December 31, 2023 GASB Statement No. 74 actuarial valuation for financial reporting purposes, which included information for the OPEB benefits payable from the SRBR. The valuation was performed in order to comply with GASB Statement No. 74 and we certify that the assumptions and methods used for financial reporting purposes meet the parameters set by ASOPs and our understanding of generally accepted accounting principles applicable in the United States of America as promulgated by the GASB. For the December 31, 2022 SRBR sufficiency valuation, the investment return assumption adopted by the Board was 7.00%, as noted earlier. For the December 31, 2023 GASB Statement No. 74 (OPEB) and Statement No. 67 (non-OPEB) financial reporting valuations, the Board carried forward the use of a 7.00% investment return assumption resulting from the November 30, 2022 experience analysis. In addition, the results of the December 31, 2023 GASB Statement No. 74 valuation reflect the health care cost trend assumptions recommended for the sufficiency study for the SRBR as of December 31, 2023, which were provided in our letter dated May 8, 2024.

The Total OPEB Liability (TOL) measured as of December 31, 2023 of $1.269 billion has been determined by rolling forward the liability results used in determining the sufficiency of the SRBR to provide medical, dental, and vision subsidy benefits as of December 31, 2022.* That TOL has been adjusted to reflect the health care cost trend assumptions recommended for the sufficiency study for the SRBR as of December 31, 2023 (reference: our letter dated May 8, 2024) and the new December 31, 2023 actuarial assumptions adopted in the Experience Study for the period December 1, 2019 through November 30, 2022 effective for the December 31, 2023 valuation (including the 7.00% investment return assumption). The changes in health care cost trend assumptions from the December 31, 2022 sufficiency of the SRBR OPEB valuation to the December 31, 2023 GAS 74 valuation reflect the actual Medicare Part B premium increase of 5.93% from calendar year 2023 to 2024. For the non-Medicare plans, we increased the first-year trend rate to 8.50% in 2024, graded down by 1.00% in 2025 and by 0.50% in 2026, then by 0.25% each year for 10 years until reaching an ultimate rate of 4.50%. For the Medicare plans, we increased the first-year trend rate to 16.47% in 2024, then 7.00% graded down by 0.25% each year until reaching an ultimate rate of 4.50% after 10 years. Our trend assumptions include an estimated impact of the Inflation Reduction Act of 2022 (IRA) on the Fund's Medicare plan premiums in calendar year 2025 based on the Final CY 2025 Part D Redesign Program. Instructions were released by the Centers for Medicare and Medicaid Services (CMS) on April 1, 2024.

We have also continued the practice of adjusting the Plan's Fiduciary Net Position of $1.060 billion as of December 31, 2023 to include the $1.081 billion set aside by the Retirement Board in the SRBR reserve to pay OPEB benefits as of December 31, 2023. This includes

* When measuring OPEB liability, GASB uses the same actuarial cost method (Entry Age) and, for benefits that are being fully funded on an actuarial basis, the same type of discount rate (expected return on assets) as ACERA uses for funding. See discussions on page 7 of the December 31, 2023 GASB Statement No. 74 actuarial valuation regarding the source of funding for payment of OPEB SRBR benefits not covered by current OPEB Plan's Fiduciary Net Position in the SRBR.

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$1.071 billion[1] in the OPEB-related SRBR reserve (after reducing the reserve by the $4.1 million SRBR implicit subsidy transfer), and $10.1 million in the 401(h) reserve. It should be noted that as of December 31, 2023, the deferred investment loss for the entire Plan was $292.8 million. After offsetting this loss by the balance in the Contingency Reserve, the residual loss was $256.1 million. Generally speaking, we have subtracted from the Plan's Fiduciary Net Position the proportionate share of the net deferred investment loss that is commensurate with the size of the OPEB SRBR reserve, or $20.8 million (which will cause the future interest crediting rate to the SRBR reserve to drop below 7.00% per year).

Note number 7 to the Basic Financial Statements and the Required Supplementary Information included in the Financial Section of the Annual Report were prepared by the Association based on the results of the GASB Statement No. 74 actuarial valuation as of December 31, 2023 prepared by Segal.

## December 31, 2023 GASB Statement No. 67 actuarial valuation for financial reporting purposes for the discretionary Non-OPEB benefits provided by the SRBR

As noted in our actuarial certification letter for the statutory Retirement Plan benefits dated June 7, 2024, Segal also prepared the December 31, 2023 GASB Statement No. 67 actuarial valuation for financial reporting purposes, which included information for the non-OPEB benefits payable from the SRBR. The valuation was performed in order to comply with GASB Statement No. 67 and we certify that the assumptions and methods used for financial reporting purposes meet the parameters set by ASOPs and our understanding of generally accepted accounting principles applicable in the United States of America as promulgated by the GASB.

For the statutory Retirement Plan benefits, the Net Pension Liabilities (NPLs) measured as of December 31, 2023 and 2022 were determined by rolling forward the Total Pension Liabilities (TPLs) as of December 31, 2022 (roll-forward performed after adjustment for new assumptions and new plan provisions effective for the December 31, 2023 valuation) and December 31, 2021, respectively.[2] The TPL for the statutory funded benefits is $11,760.9 million as of December 31, 2023, which was calculated by revaluing the Actuarial Accrued Liability (AAL) for the funded benefits as of December 31, 2022 using the new December 31, 2023 actuarial assumptions adopted in the Experience Study for the period December 1, 2019 through November 30, 2022 and plan provisions effective for the December 31, 2023 valuation, and then rolling forward one year. Similar to last year, we have included in the total TPL as of December 31, 2023 the non-OPEB SRBR **unlimited** AAL of $200.3 million related to the non-vested Supplemental COLA and retired member death benefit, which was calculated by revaluing the non-OPEB SRBR unlimited AAL as of December 31, 2022 to include the new

[1] This excludes $54.2 million transferred from the OPEB SRBR to the non-OPEB SRBR approved by the Board on March 21, 2024 to equalize the sufficiency periods for OPEB and non-OPEB SRBR benefits.

[2] When measuring pension liability, GASB uses the same actuarial cost method (Entry Age) and the same type of discount rate (expected return on assets) as ACERA uses for funding of the statutory Retirement Plan benefits.

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actuarial assumptions effective for the December 31, 2023 valuation and rolling forward the results from December 31, 2022 to December 31, 2023.

It should be noted that as of December 31, 2023, the deferred investment loss for the entire Plan was $292.8 million. After offsetting this loss by the balance in the Contingency Reserve, the residual loss was $256.1 million. Generally speaking, the proportionate share of the net deferred investment loss as of December 31, 2023 for the Pension Plan was equal to $233.2 million, and in calculating the Plan's Fiduciary Net Position we have adjusted the Pension Plan's valuation value of assets of $10,342.5 million in the funding valuation to reflect that amount. The Plan's Fiduciary Net Position related to the funded benefit is $10,109.3 million as of December 31, 2023.

We have continued the practice of adjusting the Plan's Fiduciary Net Position as of December 31, 2023 to include the $111.3 million set aside by the Retirement Board in the SRBR reserve to pay non-OPEB SRBR as of December 31, 2023.* We have subtracted from the Plan's Fiduciary Net Position the proportionate share of the net deferred investment loss that is commensurate with the size of the non-OPEB SRBR reserve, or $2.1 million. The net effect of the adjustments to the Plan's Fiduciary Net Position as of December 31, 2023 for non-OPEB SRBR benefits was an addition of $109.2 million.

The $1,651.6 million difference between the $11,760.9 million of TPL for the funded benefits and the net $10,109.3 million of Plan's Fiduciary Net Position related to the funded benefit as of December 31, 2023 represents the NPL attributable to the funded benefits. The $91.1 million difference between the $200.3 million added to the TPL and the net $109.2 million added to the Plan's Fiduciary Net Position as of December 31, 2023 represents the NPL attributable to the non-OPEB SRBR benefits. The total NPL as of December 31, 2023 is therefore $1,742.7 million.

Note number 5 to the Basic Financial Statements and the Required Supplementary Information included in the Financial Section of the Annual Report were prepared by the Association based on the results of the GASB Statement No. 67 actuarial valuation as of December 31, 2023 prepared by Segal.

This document has been prepared for the exclusive use and benefit of the Board of Retirement of the Alameda County Employees' Retirement Association, based upon information provided by ACERA or otherwise made available to Segal at the time this document was created. Segal makes no representation or warranty as to the accuracy of any forward-looking statements and does not guarantee any particular outcome or result. Except as may be required by law, this document should not be shared, copied or quoted, in whole or in part, without the consent of Segal. This document does not constitute legal, tax or investment advice or create or imply a fiduciary relationship. You are encouraged to discuss any issues raised with your legal, tax and other advisors before taking, or refraining from taking, any action.

* This includes $54.2 million transferred from the OPEB SRBR to the non-OPEB SRBR approved by the Board on March 21, 2024 to equalize the sufficiency periods for OPEB and non-OPEB SRBR benefits. We have excluded the liability and the assets associated with the OPEB component of the SRBR reserve account because it is our understanding that those amounts are reportable under GASB 74/75.

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Board of Retirement
Alameda County Employees' Retirement Association
June 7, 2024
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The undersigned are members of the American Academy of Actuaries and meet the qualification requirements to render the actuarial opinion contained herein.

Sincerely,

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

Eva Yum, FSA, EA, MAAA
Vice President and Actuary

Mehdi Riazi, FSA, EA, MAAA, FCA
Vice President and Actuary

ST/elf
Enclosures

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# Summary of Actuarial Assumptions and Methods

## Assumptions For Pension Plan

The following assumptions have been adopted by the Board of Retirement for the December 31, 2022, valuation based on the November 30, 2019, triennial experience study.

### Summary of Assumptions

| | |
|---|---|
| Actuarial Assumed Interest Rate | 7.00% |
| Inflation Rate | 2.75% |
| Payroll Growth Increase | 3.25% |
| Projected Salary Increases | |
| **General:** | 8.35% to 3.65% |
| **Safety:** | 11.25% to 4.05% |
| These rates include inflation and real across-the-board salary increases. | |
| Retiree Cost-of-Living Adjustment (Basic) | |
| **for Tier 1 and 3 members:** | 2.75% |
| **for Tier 2 and 4 members:** | 2.00% |
| Employee Contribution Crediting Rate | 7.00% |

### Net Investment Return

For valuation purposes, the assumed rate of return on the valuation value of assets was 7.00%, net of administration and investment expenses.

### Employee Contribution Crediting Rate

7.00%, compounded semi-annually, subject to the availability of net earnings. ACERA operates under the Alternate Financial Provisions of Article 5.5 of the 1937 Act. The employee contribution crediting rate is the assumed actuarial investment rate of return to the extent that "net earnings" as defined in Article 5.5 are available. In addition, whenever there is a remaining balance of "net earnings", after all other required crediting, a portion of that remaining balance is also credited, as described in Article 5.5.

### Actuarial Value of Assets

The Actuarial Value of Assets is determined by taking Market Value of Assets (MVA) less unrecognized returns in each of the last ten six-month interest crediting periods. Unrecognized returns are equal to the difference between the actual market return and the expected return on the market value, and are recognized semi-annually over a five-year period. The actuarial value of asset (AVA) is limited by a 40% corridor; the AVA cannot be less than 60% of MVA, nor greater than 140% of MVA.

### Post-Retirement Mortality

The actuarial valuation uses the Pub-2010 General and Safety Healthy Retiree Amount-Weighted Above-Median Mortality Tables (separate tables for males and females) for healthy General and Safety retirees (and for employee contribution rate purposes), respectively, and the Pub-2010 Non-Safety and Safety Disabled Retiree Amount-Weighted Mortality Tables (separate tables for males and females) for disabled General and Safety retirees, respectively, projected generationally with the two-dimensional mortality improvement scale MP-2019 adjusted as shown below. For beneficiaries, the actuarial valuation uses the Pub-2010 General Contingent Survivor Amount-Weighted Above-Median Mortality Tables (separate tables for males and females) projected generationally with the two-dimensional mortality improvement scale MP-2019 adjusted as shown below.

### Post-Retirement Mortality

| | |
|---|---|
| **(A) HEALTHY*** | |
| General Members | No adjustments. |
| Safety Members | No adjustments. |
| **(B) DISABILITY*** | |
| General Members | With rates decreased by 10% for females. |
| Safety Members | With rates increased by 5% for males. |
| **(C) BENEFICIARIES*** | |
| All Beneficiaries | With rates increased by 5% for males. |
| **(D) FOR EMPLOYEE CONTRIBUTION RATE PURPOSES** | |
| General Members | Projected 30 years (from 2010) with two-dimensional mortality improvement Scale MP-2019, weighted 30% male and 70% female. |
| Safety Members | Projected 30 years (from 2010) with two-dimensional mortality improvement Scale MP-2019, weighted 75% male and 25% female. |

* The Pub-2010 mortality tables and adjustments as shown above reasonably reflect the mortality experience as of measurement date. These mortality tables were adjusted to future years using the generational projection to reflect future mortality improvement between the measurement date and those years.

## Assumed Retirement and Termination Rates

The rates shown for each cause represent the likelihood that a given member will terminate at a particular age or with the particular service for the indicated reason. For example, if the rate of retirement for a General Tier 1 member age 50 is 2.00, then it is assumed that 2.00 percent of the General Tier 1 members in this age bracket will receive service retirement during the year.

The following schedule indicates the assumed retirement rates.

### Assumed Retirement Rates

| | Rates (%)[1] | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Age | General Tier 1 | General Tier 2[2] <30 | General Tier 2[2] 30+ | General Tier 3 | General Tier 4 | Safety Tier 1[3] | Safety Tier 2,2D[2] <30 | Safety Tier 2,2D[2] 30+ | Safety Tier 2C[3] | Safety Tier 4 |
| 49 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 12.00 | 18.00 | 0.00 | 0.00 |
| 50 | 2.00 | 2.00 | 4.00 | 10.00 | 0.00 | 35.00 | 12.00 | 18.00 | 4.00 | 4.00 |
| 51 | 4.00 | 2.00 | 4.00 | 10.00 | 0.00 | 30.00 | 10.00 | 24.00 | 2.00 | 2.00 |
| 52 | 4.00 | 2.00 | 4.00 | 10.00 | 4.00 | 25.00 | 10.00 | 24.00 | 2.00 | 2.00 |
| 53 | 5.00 | 2.00 | 4.00 | 10.00 | 2.00 | 35.00 | 10.00 | 25.00 | 3.00 | 3.00 |
| 54 | 5.00 | 2.00 | 4.00 | 10.00 | 2.00 | 45.00 | 12.00 | 27.00 | 6.00 | 6.00 |
| 55 | 6.00 | 2.00 | 4.00 | 12.00 | 5.00 | 45.00 | 12.00 | 29.00 | 10.00 | 10.00 |
| 56 | 10.00 | 2.50 | 4.50 | 14.00 | 2.50 | 45.00 | 14.00 | 32.00 | 12.00 | 12.00 |
| 57 | 12.00 | 4.00 | 5.00 | 16.00 | 3.50 | 45.00 | 16.00 | 32.00 | 20.00 | 20.00 |
| 58 | 12.00 | 4.00 | 5.00 | 18.00 | 3.50 | 45.00 | 18.00 | 30.00 | 10.00 | 10.00 |
| 59 | 14.00 | 4.50 | 8.00 | 20.00 | 4.50 | 45.00 | 18.00 | 30.00 | 15.00 | 15.00 |
| 60 | 20.00 | 8.00 | 8.50 | 20.00 | 5.00 | 45.00 | 25.00 | 30.00 | 60.00 | 60.00 |
| 61 | 20.00 | 9.00 | 13.50 | 20.00 | 5.00 | 45.00 | 25.00 | 30.00 | 60.00 | 60.00 |
| 62 | 35.00 | 15.00 | 22.50 | 30.00 | 18.00 | 45.00 | 25.00 | 30.00 | 60.00 | 60.00 |

## Assumed Retirement Rates (continued)

| | Rates (%)[1] | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Age | General Tier 1 | General Tier 2[2] <30 | General Tier 2[2] 30+ | General Tier 3 | General Tier 4 | Safety Tier 1[3] | Safety Tier 2,2D[2] <30 | Safety Tier 2,2D[2] 30+ | Safety Tier 2C[3] | Safety Tier 4 |
| 63 | 30.00 | 15.00 | 22.50 | 25.00 | 15.00 | 45.00 | 25.00 | 30.00 | 60.00 | 60.00 |
| 64 | 30.00 | 18.00 | 27.00 | 25.00 | 17.00 | 45.00 | 30.00 | 30.00 | 60.00 | 60.00 |
| 65 | 30.00 | 25.00 | 27.50 | 50.00 | 25.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| 66 | 30.00 | 30.00 | 33.00 | 50.00 | 30.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| 67 | 30.00 | 30.00 | 33.00 | 50.00 | 30.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| 68 | 30.00 | 30.00 | 33.00 | 50.00 | 30.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| 69 | 35.00 | 35.00 | 38.50 | 50.00 | 35.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| 70 | 40.00 | 40.00 | 40.00 | 65.00 | 25.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| 71 | 40.00 | 40.00 | 40.00 | 65.00 | 25.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| 72 | 40.00 | 40.00 | 40.00 | 65.00 | 25.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| 73 | 40.00 | 40.00 | 40.00 | 65.00 | 25.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| 74 | 40.00 | 40.00 | 40.00 | 65.00 | 25.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| 75 & Over | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |

1 The retirement rates only apply to members that are eligible to retire at the age shown.

2 Different retirement rates are assumed for General Tier 2 and Safety Tier 2 & 2D members who have accrued less than 30 years of service and those who have accrued at least 30 years of service.

3 Retirement rate is 100% after a member accrues a benefit of 100% of final average earnings.

## Assumed Termination Rates Before Retirement

The following schedules indicate the assumed rates before retirement for disability, termination, and mortality.

### Disability

| | Rate (%) | |
|---|---|---|
| Age | General[1] | Safety[2] |
| 20 | 0.00 | 0.00 |
| 25 | 0.01 | 0.03 |
| 30 | 0.03 | 0.26 |
| 35 | 0.07 | 0.64 |
| 40 | 0.09 | 1.22 |
| 45 | 0.16 | 1.50 |
| 50 | 0.26 | 2.10 |
| 55 | 0.33 | 2.65 |
| 60 | 0.38 | 3.80 |

1 65% of General disabilities are assumed to be service connected disabilities. The other 35% are assumed to be non-service connected disabilities.

2 100% of Safety disabilities are assumed to be service connected disabilities.

### Termination Rate (%)

| Years of Service[1] | General | Safety |
|---|---|---|
| 0-1 | 12.00 | 4.00 |
| 1-2 | 9.00 | 4.00 |
| 2-3 | 8.00 | 4.00 |
| 3-4 | 6.00 | 3.50 |
| 4-5 | 6.00 | 3.00 |
| 5-6 | 6.00 | 2.00 |
| 6-7 | 5.25 | 1.80 |
| 7-8 | 4.25 | 1.70 |
| 8-9 | 3.75 | 1.60 |
| 9-16 | 3.50 | 1.50 |
| 16-17 | 3.40 | 1.40 |
| 17-18 | 3.30 | 1.30 |
| 18-19 | 3.20 | 1.20 |
| 19-20 | 3.10 | 1.10 |
| 20 or more | 3.00 | 1.00 |

1 For members with less than five years of service, 55% of all terminated members are assumed to choose a refund of contribution and the other 45% are assumed to choose a deferred vested benefit. For members with five or more years of service, 30% of all terminated members are assumed to choose a refund of contributions and the other 70% are assumed to choose a deferred vested benefit. No termination is assumed after a member is eligible for retirement.

## Mortality[1]

| | Rate (%) | | | |
|---|---|---|---|---|
| | General[2] | | Safety[2] | |
| Age | Male | Female | Male | Female |
| 20 | 0.04 | 0.01 | 0.04 | 0.02 |
| 25 | 0.02 | 0.01 | 0.03 | 0.02 |
| 30 | 0.03 | 0.01 | 0.04 | 0.02 |
| 35 | 0.04 | 0.02 | 0.04 | 0.03 |
| 40 | 0.06 | 0.03 | 0.05 | 0.04 |
| 45 | 0.09 | 0.05 | 0.07 | 0.06 |
| 50 | 0.13 | 0.08 | 0.10 | 0.08 |
| 55 | 0.19 | 0.11 | 0.15 | 0.11 |
| 60 | 0.28 | 0.17 | 0.23 | 0.15 |
| 65 | 0.41 | 0.27 | 0.35 | 0.20 |

1 Generational projections beyond the base year (2010) are not reflected in the above mortality rates. All pre-retirement deaths are assumed to be non-service connected.

2 Based on Pub-2010 General and Safety Employee Amount-Weighted Above-Median Mortality Tables (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019.

## Salary Increases

The annual rate of compensation increase has three components: inflation, across-the-board salary increases (other than inflation), and merit/promotion increases based on service.

Inflation at 2.75%, plus

Across-the-board salary increase of 0.50% per year, plus

Merit and promotion increases:

| Years of Service | General | Safety |
|---|---|---|
| 0-1 | 5.10% | 8.00% |
| 1-2 | 5.10% | 8.00% |
| 2-3 | 4.50% | 8.00% |
| 3-4 | 2.90% | 4.90% |
| 4-5 | 2.10% | 3.70% |
| 5-6 | 1.60% | 2.10% |
| 6-7 | 1.50% | 1.30% |
| 7-8 | 1.50% | 1.20% |
| 8-9 | 1.00% | 0.90% |
| 9-10 | 0.90% | 0.90% |
| 10-11 | 0.70% | 0.80% |
| 11 and Over | 0.40% | 0.80% |

## Actuarial Cost Method

Entry Age Actuarial Cost Method. Entry Age is the age on valuation date minus years of service. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are based on costs allocated as a level percentage of compensation, as if the current benefit formula for each individual has always been in effect.

## Amortization Method

Unfunded Actuarial Accrued Liability (UAAL) is amortized as a level percentage of payroll (3.25% payroll growth assumed).

Prior to January 1, 2012, the total UAAL was amortized on a 30-year decreasing period, with 21 years remaining as of December 31, 2011 (and 10 years remaining as of December 31, 2022).

On or after January 1, 2012, any new UAAL resulting from plan amendments are amortized over separate decreasing 15-year periods; early retirement incentive programs (ERIPs) are amortized over separate decreasing 5-year periods; assumption and method changes are amortized over separate decreasing 20-year periods; and experience gains/losses are also amortized over separate decreasing 20-year periods.

Alameda County Office of Education's UAAL amortization under the declining employer payroll policy is level dollar.

The Voluntary County Safety UAAL contributions are amortized over a 13-year period effective July 1, 2021. The Voluntary LARPD General UAAL Contributions are amortized over a 16-year period effective July 1, 2021. Effective December 31, 2022, the existing LARPD General UAAL layers are amortized over 14.5 years.

## Consumer Price Index (San Francisco Bay Area)

Inflation assumption is 2.75% per year. Retiree COLA increases due to CPI are subject to 2.75% maximum change per year for General Tier 1, General Tier 3 and Safety Tier 1; and 2% maximum change per year for General Tier 2, General Tier 4, Safety Tier 2, Safety Tier 2C, Safety Tier 2D, and Safety Tier 4. (For General Tier

1, General Tier 3, and Safety Tier 1 members with a sufficient COLA bank, withdrawals from the bank can be made to increase the retiree COLA up to 3% per year.)

## Actuarial Experience Study

The postretirement and preretirement demographic assumptions are based on the plan's actuarial experience through the last triennial experience study from December 1, 2016 through November 30, 2019, which was approved by the Board of Retirement on October 15, 2020.

## Retirement Age and Benefit for Deferred Vested Members

For deferred vested members, retirement age assumptions are as follows:

| | |
|---|---|
| General | Age 61 |
| Safety | Age 55 |

For future deferred vested members who terminate with less than five years of service and are not vested are assumed to retire at age 70 for both General and Safety if they decide to leave their contributions on deposit.

It is assumed that 25% of future General and 50% of future Safety deferred vested members will continue to work for a reciprocal employer. For reciprocals, 3.65% and 4.05% compensation increases are assumed per annum for General and Safety, respectively.

## Future Benefit Accruals

One year of service per year of employment plus 0.003 years of additional service for General members and 0.007 years of additional service for Safety members, to anticipate conversion of unused sick leave for each year of employment.

## Inclusion of Deferred Vested Members

All deferred vested members are included in this valuation.

## Data Adjustments

Data as of November 30 has been adjusted to December 31 by adding one month of age and, for active members, one month of service.

## Form of Payment

All active and inactive vested members are assumed to elect the unmodified option at retirement.

## Percent of Members Married

70% of male members and 50% of female members.

## Age and Gender of Spouse

For all active and inactive members, male member are assumed to have a female spouse who is 3 years younger than the member and female members are assumed to have a male spouse who is 2 years older than the member.

## Unknown Data for Members

Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male.

## Payroll Growth

Inflation of 2.75% per year plus real "across-the-board" salary increases of 0.50% per year.

## Increase in Internal Revenue Code Section 401(a)(17) Compensation Limit

Increase of 2.75% per year from valuation date.

## Increase in Section 7522.10 Compensation Limit

Increase of 2.75% per year from valuation date.

## Additional Cashout Assumptions

Additional pay elements are expected to be received during a member's final average earnings period. The percentages, added to the final average salary, used in this valuation are:

| Membership Category | Service Retirement | Disability Retirement |
|---|---|---|
| General Tier 1 | 7.50% | 6.50% |
| General Tier 2 | 3.00% | 1.40% |
| General Tier 3 | 7.50% | 6.50% |
| General Tier 4 | N/A | N/A |
| Safety Tier 1 | 7.50% | 6.40% |
| Safety Tier 2 | 2.50% | 1.90% |
| Safety Tier 2C | 2.50% | 1.90% |
| Safety Tier 2D | 2.50% | 1.90% |
| Safety Tier 4 | N/A | N/A |

## CHANGES IN ACTUARIAL ASSUMPTIONS

There have been no changes in actuarial assumptions since the last valuation.

## Active Member Valuation Data – Pension Plan (Actuary's Exhibit 1)

| Valuation Date[1] | No. of Participating Agencies | Plan Type | Number | Annual Payroll ($)[2] | Annual Average Pay ($) | % Increase in Average Pay[3] |
|---|---|---|---|---|---|---|
| 12/31/2014 | 7 | General | 9,617 | 800,224,521 | 83,209 | 2.18% |
| | | Safety | 1,408 | 148,623,609 | 105,557 | 1.78% |
| | | **Total** | **11,025** | **948,848,130** | **86,063** | **2.11%** |
| 12/31/2015 | 7 | General | 9,634 | 812,636,114 | 84,351 | 1.37% |
| | | Safety | 1,437 | 156,897,481 | 109,184 | 3.44% |
| | | **Total** | **11,071** | **969,533,595** | **87,574** | **1.76%** |
| 12/31/2016 | 7 | General | 9,673 | 839,157,054 | 86,753 | 2.85% |
| | | Safety | 1,438 | 164,494,775 | 114,391 | 4.77% |
| | | **Total** | **11,111** | **1,003,651,829** | **90,330** | **3.15%** |
| 12/31/2017 | 7[4] | General | 9,887 | 884,429,873 | 89,454 | 3.11% |
| | | Safety | 1,436 | 171,231,780 | 119,242 | 4.24% |
| | | **Total** | **11,323** | **1,055,661,653** | **93,232** | **3.21%** |
| 12/31/2018 | 7 | General | 9,960 | 920,863,594 | 92,456 | 3.36% |
| | | Safety | 1,389 | 172,872,084 | 124,458 | 4.37% |
| | | **Total** | **11,349** | **1,093,735,678** | **96,373** | **3.37%** |
| 12/31/2019 | 7 | General | 9,960 | 952,171,197 | 95,600 | 3.40% |
| | | Safety | 1,376 | 177,005,751 | 128,638 | 3.36% |
| | | **Total** | **11,336** | **1,129,176,948** | **99,610** | **3.36%** |
| 12/31/2020 | 7 | General | 9,960 | 975,689,541 | 97,961 | 2.47% |
| | | Safety | 1,362 | 180,006,107 | 132,163 | 2.74% |
| | | **Total** | **11,322** | **1,155,695,648** | **102,075** | **2.47%** |
| 12/31/2021 | 7 | General | 9,903 | 1,010,957,679 | 102,086 | 4.21% |
| | | Safety | 1,423 | 193,541,750 | 136,010 | 2.91% |
| | | **Total** | **11,326** | **1,204,499,429** | **106,348** | **4.19%** |
| 12/31/2022 | 7 | General | 9,901 | 1,052,932,032 | 106,346 | 4.17% |
| | | Safety | 1,445 | 205,097,227 | 141,936 | 4.36% |
| | | **Total** | **11,346** | **1,258,029,259** | **110,879** | **4.26%** |
| 12/31/2023 | 7 | General | 10,143 | 1,110,492,047 | 109,484 | 2.95% |
| | | Safety | 1,404 | 208,904,418 | 148,792 | 4.83% |
| | | **Total** | **11,547** | **1,319,396,465** | **114,263** | **3.05%** |

1 As permitted by the Actuarial Standard of Practice No. 4 (Measuring Pension Obligations), the actuarial valuation has been prepared based on participant data provided by ACERA as of November 30.

2 Projected compensation was calculated by increasing the prior calendar year's compensation (assuming every employee will work full time) by the salary increase assumption.

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

4 Starting with the December 31, 2017 valuation date, there were no active members from the Alameda County Office of Education; however, there were still retired members from that participating agency.

## Retirees and Beneficiaries Added To and Removed From Retiree Payroll (Actuary's Exhibit 2)

| Valuation Date (December 31)[1] | Added to Rolls | | Removed from Rolls | | Rolls at End of Year | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Number | Annual Allowance[2] (in $000's) | Number | Annual Allowance (in $000's) | Number | Annual Allowance (in $000's) | % Increase in Retiree Allowance | Average Annual Allowance | Change in Average Annual Allowance |
| 2014 | 498 | $ 28,677 | (251) | $ (7,156) | 8,813 | $ 375,368 | 6.08% | $ 42,593 | 3.11% |
| 2015 | 469 | 27,312 | (292) | (9,125) | 8,990 | 393,555 | 4.85% | 43,777 | 2.78% |
| 2016 | 523 | 31,922 | (271) | (8,778) | 9,242 | 416,699 | 5.88% | 45,088 | 2.99% |
| 2017 | 512 | 32,718 | (275) | (8,112) | 9,479 | 441,305 | 5.90% | 46,556 | 3.26% |
| 2018 | 583 | 36,805 | (279) | (10,484) | 9,783 | 467,626 | 5.96% | 47,800 | 2.67% |
| 2019 | 590 | 40,287 | (295) | (10,784) | 10,078 | 497,129 | 6.31% | 49,328 | 3.20% |
| 2020 | 540 | 40,256 | (326) | (13,288) | 10,292 | 524,097 | 5.42% | 50,923 | 3.23% |
| 2021 | 580 | 41,581 | (336) | (14,580) | 10,536 | 551,098 | 5.15% | 52,306 | 2.72% |
| 2022 | 588 | 43,835 | (326) | (13,735) | 10,798 | 581,198 | 5.46% | 53,825 | 2.90% |
| 2023 | 552 | 43,015 | (324) | (14,786) | 11,026 | 609,427 | 4.86% | 55,272 | 2.69% |

1 As permitted by the Actuarial Standard of Practice No. 4 (Measuring Pension Obligations), the actuarial valuation has been prepared based on participant data provided by ACERA as of November 30.

2 Includes data adjustments and automatic cost-of-living adjustments granted on April 1.

## Actuarial Analysis of Financial Experience (Actuary's Exhibit 4)

(Dollars in Millions)

| | Plan Years | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2022 | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 |
| Prior Valuation Unfunded/(Prefunded) Actuarial Accrued Liability | $ 1,477 | $ 2,500 | $ 2,195 | $ 2,137 | $ 2,157 | $1,802 | $1,791 | $1,911 | $1,651 | $1,729 |
| Salary Increase Greater (Less) than Expected | 60 | 25 | (13) | 13 | 16 | (10) | (8) | (36) | (37) | (72) |
| COLA Increase Greater (Less) than Expected | 26 | 28 | - | - | - | - | - | (15) | - | - |
| Asset Return Less (Greater) than Expected | 5 | (208) | 57 | 66 | (17) | (11) | 22 | (61) | (145) | (33) |
| Other Experience (Including Scheduled UAAL Payment) | (76) | (868)[1] | (61) | (21) | (19) | (20) | (3) | (8) | (18) | 27 |
| Economic and Non-economic Assumption Changes | - | - | 322 | - | - | 396 | - | - | 460 | - |
| **Ending Unfunded/(Prefunded) Actuarial Accrued Liability** | **$1,492** | **$1,477** | **$2,500** | **$2,195** | **$2,137** | **$2,157** | **$1,802** | **$1,791** | **$1,911** | **$1,651** |

1 Of this amount $(813) is due to voluntary County Safety & LARPD General UAAL contributions.

## Schedule of Funded Liabilities by Type - Pension Plan[1] (Actuary's Exhibit 3)

(Dollars in Thousands)

| | Aggregate Accrued Liabilities for | | | | Portion of Accrued Liabilities Covered by Reported Assets | | | |
|---|---|---|---|---|---|---|---|---|
| Valuation Date | Active Member Contributions | Retired/ Vested Members | Active Members (Employer Financed Portion) | Total | Valuation Value of Assets | Active Member Contributions | Retired/ Vested Members | Active Members (Employer Financed Portion) |
| 12/31/2013 | $ 916,196 | $ 4,307,763 | $ 1,637,728 | $ 6,861,687 | $ 5,210,944 | 100% | 100% | 0% |
| 12/31/2014 | 994,870 | 4,785,190 | 1,812,012 | 7,592,072 | 5,681,097 | 100% | 98% | 0% |
| 12/31/2015 | 1,070,157 | 4,966,693 | 1,838,170 | 7,875,020 | 6,083,536 | 100% | 100% | 3% |
| 12/31/2016 | 1,122,671 | 5,210,571 | 1,904,473 | 8,237,715 | 6,436,138 | 100% | 100% | 5% |
| 12/31/2017 | 1,173,799 | 5,662,738 | 2,150,524 | 8,987,061 | 6,830,379 | 100% | 100% | 0% |
| 12/31/2018 | 1,223,983 | 5,939,611 | 2,212,803 | 9,376,397 | 7,239,327 | 100% | 100% | 3% |
| 12/31/2019 | 1,258,309 | 6,266,979 | 2,269,731 | 9,795,019 | 7,599,977 | 100% | 100% | 3% |
| 12/31/2020 | 1,296,260 | 6,730,506 | 2,457,414 | 10,484,180 | 7,984,241 | 100% | 99% | 0% |
| 12/31/2021 | 1,362,455 | 7,051,592 | 2,515,888 | 10,929,935 | 9,453,108 | 100% | 100% | 41% |
| 12/31/2022 | 1,420,116 | 7,414,115 | 2,580,889 | 11,415,120 | 9,923,019 | 100% | 100% | 42% |

1 The exhibit includes actuarially funded liabilities and assets. The non-valuation reserves such as Supplemental Retirees Benefit Reserve, Death Benefit and Reserve for Interest Fluctuation, etc., are not included.

Events affecting year-to-year comparability:

12/31/14 - Change in non-economic assumptions. Investment return assumption reduced from 7.80% to 7.60%; inflation assumption decreased from 3.50% to 3.25%.

12/31/17 - Change in non-economic assumptions (including merit and promotional salary increase assumptions and terminal pay assumptions). Investment return assumption reduced from 7.60% to 7.25%; inflation assumption decreased from 3.25% to 3.00%.

12/31/20 - Change in non-economic assumptions (including merit and promotional salary increase assumptions and terminal pay assumptions). Investment return assumption reduced from 7.25% to 7.00%; inflation assumption decreased from 3.00% to 2.75%.

12/31/21 - The County made voluntary County Safety contributions of $800 million on around June 29, 2021 to reduce their Safety UAAL and associated contribution rates. LARPD also made voluntary LARPD General contributions of $12.611 million on around June 29, 2021 to reduce their General UAAL and associated contribution rates.

## Schedule of Funding Progress – Pension Plan (Actuary's Exhibit 5)

(Dollars in Thousands)

| Actuarial Valuation Date | Valuation Value of Assets[1] (a) | Actuarial Accrued Liability (AAL)[2] (b) | Unfunded (Overfunded) AAL (UAAL) (b–a) | Funded Ratio (%) (a/b) | Annual Covered Payroll (c) | UAAL as a % of Annual Covered Payroll (%) (b–a) /c |
|---|---|---|---|---|---|---|
| 12/31/2013 | $ 5,210,944 | $ 6,861,687 | $ 1,650,743 | 75.9 | $ 916,803 | 180.1 |
| 12/31/2014 | 5,681,097 | 7,592,072 | 1,910,975 | 74.8 | 948,848 | 201.4 |
| 12/31/2015 | 6,083,536 | 7,875,020 | 1,791,484 | 77.3 | 969,534 | 184.8 |
| 12/31/2016 | 6,436,138 | 8,237,715 | 1,801,577 | 78.1 | 1,003,651 | 179.5 |
| 12/31/2017 | 6,830,379 | 8,987,061 | 2,156,682 | 76.0 | 1,055,661 | 204.3 |
| 12/31/2018 | 7,239,327 | 9,376,397 | 2,137,070 | 77.2 | 1,093,735 | 195.4 |
| 12/31/2019 | 7,599,977 | 9,795,019 | 2,195,042 | 77.6 | 1,129,175 | 194.4 |
| 12/31/2020 | 7,984,241 | 10,484,180 | 2,499,939 | 76.2 | 1,155,697 | 216.3 |
| 12/31/2021 | 9,453,108 | 10,929,935 | 1,476,827 | 86.5 | 1,204,499 | 122.6 |
| 12/31/2022 | 9,923,019 | 11,415,120 | 1,492,101 | 86.9 | 1,258,026 | 118.6 |

1 Excludes assets for SRBR and other non-valuation reserves. Includes the following amounts transferred from the SRBR to the employers' advance reserve to compensate the County for the implicit subsidy: (estimate provided by ACERA) 2013 $6,993; 2014 $5,215; 2015 $5,325; 2016 $8,865; 2017 $5,830; 2018 $6,940; 2019 $6,511; 2020 $7,549; 2021 $5,653 and 2022 7,981.

2 Excludes liabilities for SRBR and other non-valuation reserves.

The actuarially determined contributions and actual contributions received from the participating employers are presented in the Schedule of Employer Contributions, included in the Required Supplementary Information Section.

## Assumptions for Other Postemployment Benefits (OPEB) Plan

The actuarial assumptions used for the OPEB plan are consistent with those assumptions approved by the Retirement Board for the December 31, 2022, pension valuation, including the use of a 7.00% investment return assumption. For a complete list of actuarial assumptions, refer to the summary of assumptions and methods for the pension plan. The actuarial assumptions that are specific to the OPEB plan are as follows:

### Per Capita Health Costs

The combined monthly per capita dental and vision claims cost for plan year 2023 was assumed to be $55.87. The monthly Medicare Part B premium reimbursement for 2023 is $164.90. For calendar year 2023, medical costs for a retiree were assumed to be as follows:

| Medical Plan[1] | Election Assumption | Monthly Premium | Maximum Monthly Medical Allowance[2] |
|---|---|---|---|
| **Under Age 65[3]** | | | |
| Kaiser HMO | 75% | $ 909.74 | $ 616.12 |
| Via Benefits Individual Insurance Exchange[4] | 13% | N/A | 616.12 |
| United Healthcare HMO Current Network | 7% | 1,290.92 | 616.12 |
| United Healthcare HMO SVA Network | 5% | 843.94 | 616.12 |
| **Age 65 and Older** | | | |
| Kaiser Senior Advantage | 75% | $ 316.81 | $ 616.12 |
| Via Benefits Individual Insurance Exchange | 25% | 323.40[5] | 471.99 |

1 There are other plans available to retirees under 65, and age 65 and older, that have a range of premiums. The same costs as Kaiser HMO and Kaiser Senior Advantage are assumed for current non-Medicare and Medicare retirees, respectively.

2 The Maximum Monthly Medical Allowance of $616.12 ($471.99 for retirees purchasing individual insurance from the Medicare exchange) is subject to the following subsidy schedule:

| Completed Years of Service | Percentage Subsidized |
|---|---|
| 10-14 | 50% |
| 15-19 | 75% |
| 20+ | 100% |

3 Current retirees under 65 as well as future retirees are assumed to elect medical plans in the same proportion upon age 65 as current retirees who are age 65 and over.

4 Via Benefits individual insurance coverage is available to retirees under age 65 residing outside of ACERA medical plans' coverage area. It is assumed that these current retirees under 65 will draw the Maximum Monthly Subsidy ($616.12).

5 The derivation of amounts expected to be paid in 2022 from the Health Reimbursement Account for members with 20 plus years of service is provided in the following table. In the table, the amounts expected to be paid for members with 10-14 and 15-19 years of service is also provided.

**Derivation of Via Benefits Monthly Per Capita Costs**

| Years of Service Category | 10-14 | 15-19 | 20+ |
|---|---|---|---|
| 1 Maximum MMA for 2022 | $ 228.57 | $ 342.85 | $ 457.13 |
| 2 Total of Maximum MMA (From Jan. 2022 to Dec. 2022) | $511,893 | $815,401 | $5,136,604 |
| 3 Total of Actual Reimbursement (From Jan. 2022 to Dec. 2022) | $374,455 | $564,457 | $3,101,877 |
| 4 Ratio of Actual Reimbursement to Maximum 2022 MMA [(3)/(2)] | 73.15% | 69.22% | 60.39% |
| 5 Average Monthly Per Capita Cost for 2022 [(1)*(4)] | $ 167.20 | $ 237.32 | $ 276.06 |
| 6 Maximum MMA for 2023 | $ 236.00 | $ 353.99 | $ 471.99 |
| 7 Increased for Expected Medical Trend (6.50%) from 2022 to 2023 [(5)*1.0650] | $ 178.07 | $ 252.75 | $ 294.00 |
| 8 Increase for Additional 10% Margin for 2022 Expenses Incurred in 2022 but Reimbursed after December 2022 [(7)*1.10] | **$ 195.88** | **$ 278.03** | **$ 323.40** |

## Implicit Subsidy

The estimated average per capita premium for retirees under age 65 is $11,240 per year. Because premiums for retirees under age 65 include active participants for purposes of underwriting, the retirees receive an implicit subsidy from the actives. Had the retirees under age 65 been underwritten as a separate group, their age-based premiums would be higher for most individuals. The excess of the age-based premium over the per capita premium charged makes up the subsidy.

Below is a sample of the age-based average medical claim costs for the retirees under age 65.

| Age-Based Average Medical Costs for Retirees Under Age 65 | | |
|---|---|---|
| | Retiree and Spouse | |
| Age | Male | Female |
| 50 | $ 11,435 | $ 12,075 |
| 55 | 12,904 | 13,108 |
| 60 | 14,857 | 14,209 |
| 64 | 18,056 | 15,426 |

Not all ACERA employers are receiving an implicit subsidy reimbursement from the Association. For SRBR sufficiency purposes, an adjustment of 0.86 (14% reduction of the cost shown above) for the projected implicit subsidy payments has been applied to account for this fact, based on data provided by the County of Alameda's health consultant.

The adjustment mentioned above has not been applied in the calculation of Actuarial Present Value of Projected Benefits and Actuarial Accrued Liability (AAL).

The 2023 medical and prescription drug age-based claims costs for retirees age 65 and over are shown below at selected ages:

| Kaiser Senior Advantage | | | | |
|---|---|---|---|---|
| | Retiree | | Spouse[1] | |
| Age | Male | Female | Male | Female |
| 65 | $ 3,614 | $ 3,002 | N/A | N/A |
| 70 | 4,059 | 3,358 | N/A | N/A |
| 75 | 4,484 | 3,530 | N/A | N/A |
| 80+ | 4,695 | 3,768 | N/A | N/A |
| **Via Benefits** | | | | |
| | Retiree | | Spouse[1] | |
| Age | Male | Female | Male | Female |
| 65 | $ 3,613 | $ 3,001 | N/A | N/A |
| 70 | 4,058 | 3,357 | N/A | N/A |
| 75 | 4,483 | 3,529 | N/A | N/A |
| 80+ | 4,694 | 3,767 | N/A | N/A |

1 Spouses are only eligible for implicit subsidy while under age 65.

## Health Care Cost Trend Rates

Health care trend measures the anticipated overall rate at which health plan costs are expected to increase in future years. The rates shown below are "net" and are applied to the net per capital costs shown above. The trend shown for a particular plan year is the rate that is to be applied to the premium for the shown calendar year to calculate the next calendar year's projected premium. For example, the projected 2024 calendar year premium for Kaiser (under age 65) is $1,037.76 per month ($909.74 increased by 14.07%).

| Calendar Year | Rate (%) United Healthcare HMO & Kaiser HMO Early Retiree[2] | Via Benefits & Kaiser Senior Advantage[3] | Dental[4] | Vision[5] | Medicare Part B |
|---|---|---|---|---|---|
| 2023[1] | 7.50 | 6.25 | 4.00 | 0.00 | 4.50 |
| 2024 | 7.25 | 6.00 | 0.00 | 0.00 | 4.50 |
| 2025 | 7.00 | 5.75 | 4.00 | 4.00 | 4.50 |
| 2026 | 6.75 | 5.50 | 4.00 | 4.00 | 4.50 |
| 2027 | 6.50 | 5.25 | 4.00 | 4.00 | 4.50 |
| 2028 | 6.25 | 5.00 | 4.00 | 4.00 | 4.50 |
| 2029 | 6.00 | 4.75 | 4.00 | 4.00 | 4.50 |
| 2030 | 5.75 | 4.50 | 4.00 | 4.00 | 4.50 |
| 2031 | 5.50 | 4.50 | 4.00 | 4.00 | 4.50 |
| 2032 | 5.25 | 4.50 | 4.00 | 4.00 | 4.50 |
| 2033 | 5.00 | 4.50 | 4.00 | 4.00 | 4.50 |
| 2034 | 4.75 | 4.50 | 4.00 | 4.00 | 4.50 |
| 2035 & Later | 4.50 | 4.50 | 4.00 | 4.00 | 4.50 |

1 The actual trends are shown below, based on premium renewals for 2024 as reported by ACERA.

| Kaiser HMO Early Retiree | United Health-care HMO Signature Value Early Retiree | United Health-care HMO Signature Value Advantage Early Retiree | Kaiser Senior Advantage | Dental | Vision |
|---|---|---|---|---|---|
| 14.07% | 18.02% | 18.01% | 11.84% | -0.37% | 0.00% |

2 Non-Medicare plans.

3 Medicare plans.

4 Second year reflects two-year rate guarantee, premiums fixed at 2024 level.

5 First two years reflect five-year rate guarantee, premiums fixed at 2021 level.

## Assumed Increase in Annual Maximum Benefits

For the "substantive plan design" shown in this report, actuary has assumed:

- Maximum medical allowances for ACERA sponsored plans and individual out-of-area non-Medicare plans for 2024 will increase to $635.37 per month ($486.74 for individual Medicare plans), then increase with 50% of trend for medical plans, or 3.00% graded down to the ultimate rate of 2.25% over 6 years. If different types of medical plans have different initial trend rates, it is assumed that the future increase in MMA will be linked to the plan with the lowest projected medical trend;
- Dental and vision premium reimbursement will increase with full trend; and,
- Medicare Part B premium reimbursement will increase with full trend.

## Participation and Coverage Election

Retired members and beneficiaries as of valuation date:

| | Under Age 65 | Upon Attaining Age 65 |
|---|---|---|
| **Medical Plan Subsidy (MMA)** | | |
| MMA on Record | | |
| Current Retirees Under 65 | 100% | 100% and assumed to choose carrier in same proportion as future retirees |
| Current Retirees 65 and Over | N/A | 100% |
| No MMA on Record | | |
| **Less than 10 Years of Service** | 0% | 0% |
| **10+ Years of Service** | | |
| Current Retirees Under 65 | 0% | 50% |
| Current Retirees 65 and Over | N/A | 0% |
| **Medicare Part B Premium Subsidy** | | |
| MMA on Record | | |
| Current Retirees Under 65 | N/A | 100% |
| Current Retirees 65 and Over | N/A | 100% if Part B reimbursement on record or purchasing individual insurance from the Medicare exchange |
| No MMA on Record | | |
| **Less than 10 Years of Service** | N/A | 0% |
| **10+ Years of Service** | | |
| Current Retirees Under 65 | N/A | 50% |
| Current Retirees 65 and Over | N/A | 0% |
| **Implicit Subsidy** | Current Retirees, married dependents and surviving beneficiaries under age 65 and enrolled in an ACERA non-Medicare plan are assumed to have an implicit subsidy liability. | |
| **Dental and Vision Subsidy** | Current retirees not self-paying ("Voluntary" or "Under 10 YOS" dental or vision code). | |

Active and inactive vested members as of valuation date:

| | Under Age 65 | Upon Attaining Age 65 |
|---|---|---|
| Medical Plan Subsidy (MMA) | 80% of eligible members. | 90% of eligible members. |
| Medicare Part B Premium Subsidy | 80% of eligible members. (disabled only) | 90% of eligible members. |
| Implicit Subsidy | 70% of eligible members under age 65 are assumed to have an implicit subsidy liability. | |
| Dental and Vision Subsidy | 100% of eligible members. | |

## Dependents

Demographic data was available for spouses of current retirees. For future retirees, male members were assumed to be three years older than their wives and female members were assumed to be one year younger than their husbands. Of the future retirees who elect to continue their medical coverage at retirement, 40% of males and 20% of females were assumed to have an eligible spouse who also opts for health coverage at that time.

These assumptions are based on historical and current demographic data, adjusted to reflect the plan design, estimated future experience and professional judgment.

Please note that these assumptions are only used to determine the cost of the implicit subsidy.

## Plan Design

Development of plan liabilities was based on the plan of benefits in effect as described in Exhibit II and III of the December 31, 2022, sufficiency valuation report.

## Administrative Expenses

An administrative expense load was not added to projected incurred claim costs in developing per capita health costs.

## Missing Participant Data

Any missing census items for a given participant was set to equal to the average value of that item over all other participants of the same membership status for whom the item is known.

## Active Member Valuation Data – OPEB (Actuary's SRBR Exhibit 1)

| Valuation Date[1] | No. of Participating Agencies | Plan Type | Number | Annual Payroll ($)[2] | Annual Average Pay ($) | % Increase in Average Pay[3] |
|---|---|---|---|---|---|---|
| 12/31/2014 | 7 | General | 9,617 | 800,224,521 | 83,209 | 2.18% |
| | | Safety | 1,408 | 148,623,609 | 105,557 | 1.78% |
| | | **Total** | **11,025** | **948,848,130** | **86,063** | **2.11%** |
| 12/31/2015 | 7 | General | 9,634 | 812,636,114 | 84,351 | 1.37% |
| | | Safety | 1,437 | 156,897,481 | 109,184 | 3.44% |
| | | **Total** | **11,071** | **969,533,595** | **87,574** | **1.76%** |
| 12/31/2016 | 7 | General | 9,673 | 839,157,054 | 86,753 | 2.85% |
| | | Safety | 1,438 | 164,494,775 | 114,391 | 4.77% |
| | | **Total** | **11,111** | **1,003,651,829** | **90,330** | **3.15%** |
| 12/31/2017 | 7[4] | General | 9,887 | 884,429,873 | 89,454 | 3.11% |
| | | Safety | 1,436 | 171,231,780 | 119,242 | 4.24% |
| | | **Total** | **11,323** | **1,055,661,653** | **93,232** | **3.21%** |
| 12/31/2018 | 7 | General | 9,960 | 920,863,594 | 92,456 | 3.36% |
| | | Safety | 1,389 | 172,872,084 | 124,458 | 4.37% |
| | | **Total** | **11,349** | **1,093,735,678** | **96,373** | **3.37%** |
| 12/31/2019 | 7 | General | 9,960 | 952,171,197 | 95,600 | 3.40% |
| | | Safety | 1,376 | 177,005,751 | 128,638 | 3.36% |
| | | **Total** | **11,336** | **1,129,176,948** | **99,610** | **3.36%** |
| 12/31/2020 | 7 | General | 9,960 | 975,689,541 | 97,961 | 2.47% |
| | | Safety | 1,362 | 180,006,107 | 132,163 | 2.74% |
| | | **Total** | **11,322** | **1,155,695,648** | **102,075** | **2.47%** |
| 12/31/2021 | 7 | General | 9,903 | 1,010,957,679 | 102,086 | 4.21% |
| | | Safety | 1,423 | 193,541,750 | 138,010 | 2.91% |
| | | **Total** | **11,326** | **1,204,499,429** | **106,348** | **4.19%** |
| 12/31/2022 | 7 | General | 9,901 | 1,052,932,032 | 106,346 | 4.17% |
| | | Safety | 1,445 | 205,097,227 | 141,936 | 4.36% |
| | | **Total** | **11,346** | **1,258,029,259** | **110,879** | **4.26%** |
| 12/31/2023 | 7 | General | 10,143 | 1,110,492,047 | 109,484 | 2.95% |
| | | Safety | 1,404 | 208,904,418 | 148,792 | 4.83% |
| | | **Total** | **11,547** | **1,319,396,465** | **114,263** | **3.05%** |

1 As permitted by the Actuarial Standard of Practice No. 4 (Measuring Pension Obligations), the actuarial valuation has been prepared based on participant data provided by ACERA as of November 30.

2 Projected compensation was calculated by increasing the prior calendar year's compensation (assuming every employee will work full time) by the salary increase assumption.

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

4 Starting with the December 31, 2017 valuation date, there were no active members from the Alameda County Office of Education; however, there were still retired members from that participating agency.

## Retirees Added To and Removed From OPEB Payroll (Actuary's SRBR Exhibit 2)

| | Added to Rolls | | Removed from Rolls | | Rolls at End of Year | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Valuation Date[1] (December 31) | Number | Annual Allowance[2] (in $000's) | Number | Annual Allowance[3] (in $000's) | Number | Annual Allowance (in $000's) | % Increase in OPEB Allowance | Average Annual Allowance | Change in Average Annual Allowance |
| 2014 | 421 | $ 1,725 | (189) | $ (735) | 7,643 | $ 34,408 | 2.96% | $ 4,502 | -0.16% |
| 2015 | 388 | 1,745 | (229) | (424) | 7,802 | 35,729 | 3.84% | 4,579 | 1.71% |
| 2016 | 426 | 1,801 | (207) | (870) | 8,021 | 36,660 | 2.61% | 4,571 | -0.17% |
| 2017 | 443 | 1,979 | (197) | 365 | 8,267 | 39,004 | 6.39% | 4,718 | 3.22% |
| 2018 | 497 | 2,243 | (212) | 844 | 8,552 | 42,091 | 7.91% | 4,922 | 4.32% |
| 2019 | 516 | 2,255 | (229) | 776 | 8,839 | 45,122 | 7.20% | 5,105 | 3.72% |
| 2020 | 459 | 2,160 | (251) | 136 | 9,047 | 47,417 | 5.09% | 5,241 | 2.66% |
| 2021 | 466 | 2,035 | (272) | (2,144)[3] | 9,241 | 47,308 | -0.23% | 5,119 | -2.33% |
| 2022 | 500 | 2,353 | (256) | (1,218) | 9,485 | 48,443 | 2.40% | 5,107 | -0.23% |
| 2023 | 461 | 2,074 | (259) | (2,340) | 9,687 | 48,177 | -0.55% | 4,973 | -2.62% |

1 As permitted by the Actuarial Standard of Practice Statement No. 4 (Measuring Pension Obligations), the actuarial valuation has been prepared based on participant data provided by ACERA as of November 30.

2 Includes data adjustments and automatic cost-of-living adjustments granted on April 1.

3 Also reflects changes in benefit for continuing members.

Note: Beneficiaries are not eligible for OPEB. The allowances include medical, dental, vision and Medicare Part B premium subsidies but do not include any implicit subsidy costs valued for SRBR sufficiency or valuation liabilities.

## Member Benefit Coverage Information - OPEB
## (Actuary's SRBR Exhibit 3)
## Actuarial Accrued Liability Not Limited to Actuarial Value of Assets[1]

(Dollars in Thousands)

| | Aggregate Accrued Liabilities for | | | | Portion of Accrued Liabilities Covered by Reported Assets | | | |
|---|---|---|---|---|---|---|---|---|
| Valuation Date | Active Member Contributions | Retired/ Vested Members[2] | Active Members (Employer Financed Portion)[2] | Total[2] | Actuarial Value of Assets | Active Member Contributions | Retired/ Vested Members[3] | Active Members (Employer Financed Portion)[3] |
| 12/31/2013 | N/A | $ 428,851 | $ 295,725 | $ 724,576 | $ 617,627 | N/A | 100% | 64% |
| 12/31/2014 | N/A | 489,588 | 341,746 | 831,334 | 759,200 | N/A | 100% | 79% |
| 12/31/2015 | N/A | 511,694 | 389,287 | 900,981 | 822,858 | N/A | 100% | 80% |
| 12/31/2016 | N/A | 544,660 | 365,696 | 910,356 | 837,185 | N/A | 100% | 80% |
| 12/31/2017 | N/A | 585,466 | 416,176 | 1,001,642 | 858,005 | N/A | 100% | 65% |
| 12/31/2018 | N/A | 595,608 | 411,780 | 1,007,581 | 883,013 | N/A | 100% | 70% |
| 12/31/2019 | N/A | 631,644 | 442,548 | 1,074,192 | 888,184 | N/A | 100% | 58% |
| 12/31/2020 | N/A | 633,137 | 459,683 | 1,092,820 | 891,580 | N/A | 100% | 56% |
| 12/31/2021 | N/A | 680,657 | 512,070 | 1,192,727 | 1,082,704 | N/A | 100% | 79% |
| 12/31/2022 | N/A | 683,999 | 475,448 | 1,159,447 | 1,114,705 | N/A | 100% | 91% |

1 When the actuarial accrued liabilities were limited to the current assets, the UAALs were $0. Similarly, the funded ratios were 100%.

2 Accrued liabilities have not been limited to benefits expected to be paid before the exhaustion of actuarial value of assets.

3 Assuming actuarial value of assets is first used to entirely fund the liabilities for retired/vested members before it is used to fund the liabilities for active members.

Events affecting year-to-year comparability:

12/31/13 - The Board acted on July 17, 2014 to maintain the 2015 MMA at the 2014 level.

12/31/14 - Changes in non-economic assumptions. Investment return assumption decreased from 7.80% to 7.60%; inflation assumption decreased from 3.50% to 3.25%. The Board acted on July 16, 2015 to increase the 2015 MMA by 3.5% for 2016.

12/31/15 - The Board acted to leave the 2016 MMA unchanged for 2017 and 2018.

12/31/17 - Changes in non-economic assumptions. Investment return assumption decreased from 7.60% to 7.25%; inflation assumption decreased from 3.25% to 3.00%. The Board acted to increase the 2018 MMA for 2019. The maximum MMA for ACERA sponsored plans and individual (out-of-area) non-Medicare plans becomes $558.00 and the maximum MMA for individual Medicare plans becomes $427.46 for 2019.

12/31/18 - The maximum MMA for ACERA sponsored plans and individual (out-of-area) non-Medicare plans becomes $578.65 and the maximum MMA for individual Medicare plans becomes $443.28 for 2020.

12/31/19 - The Board acted to leave the 2020 MMA unchanged for 2021.

12/31/20 - Changes in non-economic assumptions. Investment return assumption decreased from 7.25% to 7.00%; inflation assumption decreased from 3.00% to 2.75%. The maximum MMA for ACERA sponsored plans and individual (out-of-area) non-Medicare plans becomes $596.73 and the maximum MMA for individual Medicare plans becomes $457.13 for 2022.

12/31/21 - The maximum MMA for ACERA sponsored plans and individual (out-of-area) non-Medicare plans becomes $616.12 and the maximum MMA for individual Medicare plans becomes $471.99 for 2023.

12/31/22 - The maximum MMA for ACERA sponsored plans and individual (out-of-area) non-Medicare plans becomes $635.37 and the maximum MMA for individual Medicare plans becomes $486.74 for 2024.

Note: At each valuation date, health care cost trend rates have been updated and starting premium costs have been revised to reflect updated data.

## Schedule of Funded Liabilities[1] by Type - Non-OPEB
## (Actuary's SRBR Exhibit 3) Continued
## Actuarial Accrued Liability Not Limited to Actuarial Value of Assets[2]

(Dollars in Thousands)

| | Aggregate Accrued Liabilities for | | | | Portion of Accrued Liabilities Covered by Reported Assets | | | |
|---|---|---|---|---|---|---|---|---|
| Valuation Date | Active Member Contributions | Retired/ Vested Members[3] | Active Members (Employer Financed Portion)[3] | Total[3] | Actuarial Value of Assets | Active Member Contributions | Retired/Vested Members[4] | Active Members (Employer Financed Portion)[4] |
| 12/31/2013 | N/A | $ 81,814 | $ 96,985 | $ 178,799 | $ 26,870 | N/A | 33% | 0% |
| 12/31/2014 | N/A | 73,728 | 80,371 | 154,099 | 32,570 | N/A | 44% | 0% |
| 12/31/2015 | N/A | 83,016 | 84,635 | 167,651 | 35,194 | N/A | 42% | 0% |
| 12/31/2016 | N/A | 100,279 | 89,264 | 189,543 | 36,162 | N/A | 36% | 0% |
| 12/31/2017 | N/A | 84,063 | 65,558 | 149,621 | 37,517 | N/A | 45% | 0% |
| 12/31/2018 | N/A | 113,097 | 68,543 | 181,640 | 39,366 | N/A | 35% | 0% |
| 12/31/2019 | N/A | 124,174 | 71,375 | 195,549 | 40,430 | N/A | 33% | 0% |
| 12/31/2020 | N/A | 76,651 | 31,404 | 108,055 | 41,677 | N/A | 54% | 0% |
| 12/31/2021 | N/A | 101,298 | 32,725 | 134,023 | 51,921 | N/A | 51% | 0% |
| 12/31/2022 | N/A | 155,457 | 33,857 | 189,314 | 54,901 | N/A | 35% | 0% |

1 Actuarial accrued liabilities.

2 When the actuarial accrued liabilities were limited to the current assets, the UAALs were $0. Similarly, the funded ratios were 100%.

3 Accrued liabilities have not been limited to benefits expected to be paid before the exhaustion of actuarial value of assets.

4 Assuming actuarial value of assets is first used to entirely fund the liabilities for retired/vested members before it is used to fund the liabilities for active members.

Events affecting year-to-year comparability:

12/31/13 - Increase in lump sum death benefit from $750 to $1,000.

12/31/14 - Changes in non-economic assumptions. Investment return assumption decreased from 7.80% to 7.60%; inflation assumption decreased from 3.50% to 3.25%.

12/31/17 - Changes in non-economic assumptions. Investment return assumption decreased from 7.60% to 7.25%; inflation assumption decreased from 3.25% to 3.00%.

12/31/20 - Changes in non-economic assumptions. Investment return assumption decreased from 7.25 to 7.00%; inflation assumption decreased from 3.00% to 2.75%.

# Summary of Plan Provisions

## Benefits Sections 31676.1, 31676.12, 31676.18, 31664, 31664.1, and 31664.2 Of The County Employees Retirement Law Of 1937 ("1937 Act") and Government Code Sections 7522.20(a) for General Tier 4 and 7522.25(d) for Safety Tier 4

Briefly summarized below are major provisions of the 1937 Act and the California Government Code as amended through December 31, 2022, and as adopted by Alameda County or other participating employers.

### Membership Eligibility

With the exception of Alameda Health System, all full-time employees of participating employers who are appointed to permanent positions are statutorily required to become members of ACERA. With the passage of AB1008 in 2013, employees of newly acquired hospitals by Alameda Health System are not eligible for membership unless they are subject to an existing Memorandum of Understanding. Effective October 31, 2013, all newly hired unrepresented employees of any Alameda Health System facility are prohibited from membership.

Membership with ACERA usually begins with the second pay period following appointment to a full-time County or participating employer position, except for Housing Authority of the County of Alameda and Livermore Area Recreation & Park District. Membership for these employees is effective on the first day of employee's hire in an ACERA covered position. ACERA members who change from full-time to part-time are required to continue membership at ACERA (with future contributions and benefits adjusted accordingly).

### Tiers (Benefit Levels)

General and Safety Tier 1 include, depending on the employer, all General and Safety members hired on or before June 30, 1983. For Housing Authority and LARPD General members the hire dates are on or before September 30, 2011 and on or before September 30, 2008, respectively (instead of June 30, 1983). General and Safety Tier 2 include, depending on the employer, General and Safety members hired after June 30, 1983. For Housing Authority General members, the hire date is after September 30, 2011 (instead of June 30, 1983). General Tier 3 was effective October 1, 2008 for electing General active members of the Livermore Area Recreation and Park District (LARPD). LARPD adopted a benefit improvement for all service under the 2.5% @ 55 formula as an option to their employees. The County adopted Safety Tier 2 formulas, 2% @ 50 (Safety Tier 2C) and 3% @ 55 (Safety Tier 2D), for new hires starting October 17, 2010. General and Safety Tier 4 include all General and Safety members hired on or after January 1, 2013. See page 156 and page 157 for employer and employee contribution rates.

### Final Compensation for Benefit Determination ("Final Average Salary")

Final Average Salary (FAS) is defined as the highest consecutive 12 months of compensation earnable for Tier 1 and Tier 3; and the highest consecutive 36 months of compensation earnable for Tier 2. For Tier 4 members, FAS is defined as the highest consecutive 36 months of pensionable compensation.

### Return of Contributions

If a member should resign or die before becoming eligible for retirement, his or her contributions plus interest will be refunded upon request. In lieu of receiving a return of contributions, a vested member or member terminated after January 1, 2003, may elect to leave his or her contributions on deposit and receive a deferred vested benefit when eligible for retirement.

## Eligibility for Service Retirement

General non-Tier 4 members are eligible to retire: at age 50 with 5 years of service and a total of 10 years of qualifying membership; or at age 70 regardless of years of service, or at any age with 30 years of service. General Tier 4 members are eligible to retire at age 52 with 5 years of service or at age 70 regardless of service. Safety non-Tier 4 members are eligible to retire: at age 50 with 5 years of service and a total of 10 years of qualifying membership; or at age 70 regardless of years of service; or at any age with 20 years of service. Safety Tier 4 members are eligible to retire at age 50 with 5 years of service or at age 70 regardless of service.

## Eligibility for Deferred Service Retirement

Vested deferred members are terminated members who have completed five years of service and leave accumulated contributions in the retirement fund. Vested deferred members are entitled to receive retirement benefits upon meeting the eligibility requirements.

## Service Retirement Benefit

The monthly service retirement benefit depends on age at retirement and is based on a percentage of the final average salary (divided by 12 or 36 depending on Tier to get a monthly amount) multiplied by years of service. It is illustrated below for selected age-at-retirement figures.

For non-Tier 4 members integrated with Social Security, the benefit is reduced by one-third of the percentage shown below times the first $350 of monthly final average salary per year of service credited after January 1, 1956.

### Percentage of Final Average Salary for Selected Age-at-Retirement

| | General | | | | Safety | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Age-at-Retirement | Tier 1 | Tier 2 | Tier 3 | Tier 4 | Tier 1 | Tier 2 | Tier 2C | Tier 2D | Tier 4 |
| 50 | 1.34% | 1.18% | 2.00% | N/A | 3.00% | 3.00% | 2.00% | 2.29% | 2.00% |
| 52 | 1.49% | 1.30% | 2.20% | 1.00% | 3.00% | 3.00% | 2.22% | 2.54% | 2.20% |
| 55 | 1.77% | 1.49% | 2.50% | 1.30% | 3.00% | 3.00% | 2.62% | 3.00% | 2.50% |
| 57 | 2.00% | 1.64% | 2.50% | 1.50% | 3.00% | 3.00% | 2.62% | 3.00% | 2.70% |
| 60 | 2.34% | 1.92% | 2.50% | 1.80% | 3.00% | 3.00% | 2.62% | 3.00% | 2.70% |
| 62 | 2.62% | 2.09% | 2.50% | 2.00% | 3.00% | 3.00% | 2.62% | 3.00% | 2.70% |
| 65 | 2.62% | 2.43% | 2.50% | 2.30% | 3.00% | 3.00% | 2.62% | 3.00% | 2.70% |
| 67 and over | 2.62% | 2.43% | 2.50% | 2.50% | 3.00% | 3.00% | 2.62% | 3.00% | 2.70% |

## Maximum Benefit

The maximum basic benefit payable to a non-Tier 4 member or beneficiary is 100% of highest average compensation. There is no maximum basic benefit payable to Tier 4 members.

## Disability Benefit

Members with five years of service, regardless of age, are eligible to apply for non-service connected disability benefits. As with the service retirement benefit, the disability benefit is based on a percentage of final compensation.

The disability benefit is 1.8% of final compensation per year of service for General Tier 1 and Tier 3 members; and 1.5% final compensation per year of service for General Tier 2 and Tier 4 members. If the benefit does not exceed one-third of final compensation, the service is projected to age 62 for General Tier 1 and Tier 3, and to age 65 for General Tier 2 and Tier 4, but the total benefit cannot be more than one-third of final compensation.

The disability benefit is 1.8% of final compensation per year of service for Safety members. If the benefit does not exceed one-third of final compensation, the service is projected to age 55, but the total benefit cannot be more than one-third of final compensation.

If the disability is service connected ("job-related"), then there is no age or service requirement. This benefit is the greater of 50% of final compensation, or the benefit amount derived from the member's age, years of service, and salary.

Members who apply for disability retirement benefits must be able to prove they are permanently unable to perform the usual duties of their current job. In addition, those who apply for a service connected disability must prove their incapacity to perform their duties was job-related.

### Active Member Death Benefit

In addition to the return of employee contributions with credited interest, a lump sum death benefit is payable to the member's beneficiary or estate equal to one month's compensation for each completed year of service under the retirement system, based on the final year's average salary, but not to exceed six month's compensation.

If a member dies while eligible for service retirement or non-service connected disability, the eligible surviving spouse/domestic partner may elect to receive 60% of the greater of service or non-service connected disability retirement allowance that the member would have received for retirement on the day of his or her death in lieu of the refund of employee contributions with interest and a lump sum death benefit.

### Service Connected Death Benefit

If a member dies in the performance of duty, the eligible surviving spouse/domestic partner may elect to receive 50% of the member's final compensation (or 100% of the service retirement benefit, if greater).

### Retired Member Death Benefit

If a member dies after retirement, a lump sum amount of $1,000 is paid to the beneficiary or estate. This benefit is excluded from the pension plan funding valuation, but is included in the SRBR non-OPEB sufficiency valuation.

In addition, if the retirement was for service connected disability, 100% of the member's allowance as it was at death is continued to the qualified surviving spouse/domestic partner for life.

If the retirement was for other than service connected disability, 60% of the member's unmodified allowance is continued to the qualified surviving spouse/domestic partner for life.

### Basic Cost-of-Living Adjustments (COLA)

The basic Cost-of-Living Adjustments are based on the change in the San Francisco Bay Area Consumer Price Index (CPI) for the calendar year prior to the April 1 effective date. The basic COLA increase in retirement allowance is up to 3% per year for Tier 1 and Tier 3; and up to 2% for Tier 2 and Tier 4 members. For any year in which the CPI exceeds the COLA percentage cap for a member, the excess percentage is accumulated ("banked") for that member and subsequently applied as an increase to the allowance in a later year when the CPI figure falls short of the relevant cap.

### Supplemental Benefits Excluded from Actuarial Valuation

Non-vested supplemental COLA and retiree healthcare program benefits are paid to eligible retirees and survivors. These supplemental benefits have been excluded from the pension plan funding valuation, but are included in the SRBR, OPEB and non-OPEB sufficiency valuation.

### Contribution Rates

Basic member contribution rates are based on a formula reflecting the age at entry into the Association. The rates are such as to provide, for each year of service, an average annuity at age 60 of 1/100 of FAS for General members under Tier 1; at age 60 of 1/120 of FAS for General members under Tier 2; at age 55 of 1/100 of FAS for General members under Tier 3; 50% of the total Normal Cost rate for General Tier 4 members; at age 50 of 1/100 of FAS for non-Tier 4 Safety members; and 50% of the total Normal Cost rate for Safety Tier 4 members.

Note that in estimating FAS, an assumption to anticipate how much unused vacation would be available for conversion at retirement is included for non-Tier 4 members. Member cost of living contribution rates are actuarially determined to pay for one-half of future cost of living liabilities.

For non-Tier 4 members whose benefits are integrated with Social Security, the above contributions are reduced by one-third of that portion of such contribution payable with respect to the first $161 of biweekly salary. Member contributions are refundable upon termination from employment.

Employer contribution rates are actuarially determined to provide for the balance of the contributions needed to fund the benefits promised under the pension plan.

### Exemption from Contributions After Thirty Years of Service

Non-Tier 4 Safety members with 30 or more years of service and General members hired on or before March 7, 1973, with 30 or more years of service are exempt from paying member contributions. However, Safety members in Tiers 1, 2 and 2D are required to continue paying the 3% cost-sharing contribution after 30 years of service.

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# Statistical

# Statistical

This section 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, covering pension plan benefits, postemployment medical benefits and non-OPEB. This section also provides multi-year trend of financial and operating information to facilitate comprehensive understanding of how the organization's financial position and performance has changed over time. More specifically, the financial and operating information provides contextual data for the fiduciary net position, benefits, refunds, contribution rates and different types of retirement benefits. This information was produced by either ACERA's actuary or from ACERA's member database.

## Additions to Fiduciary Net Position by Source

(Dollars in Millions)

| Year Ended December 31 | Member Contributions | Employer Contributions | Net Investment Income (Loss) | Misc. Income | Employer Contributions to 401(h) Account | Transfer from Employers' Advance Reserve to SRBR[1] | Transfer from SRBR for Implicit Subsidy | Total Additions |
|---|---|---|---|---|---|---|---|---|
| 2023 | $ 126.5 | $ 288.6 | $ 1,248.9 | $ 0.7 | $ 49.3 | $ 1.7 | $ 7.8 | $ 1,723.5 |
| 2022 | 120.7 | 281.6 | (1,289.8) | 0.1 | 47.5 | 1.7 | 5.6 | (832.6) |
| 2021 | 111.1 | 1,116.6[2] | 1,601.2 | 1.0 | 46.8 | 1.5 | 7.5 | 2,885.7 |
| 2020 | 106.1 | 309.8 | 1,017.3 | 0.3 | 45.5 | 1.4 | 6.4 | 1,486.8 |
| 2019 | 103.1 | 298.5 | 1,358.2 | 1.2 | 44.9 | 1.4 | 6.9 | 1,814.2 |
| 2018 | 94.7 | 269.7 | (356.0) | 1.4 | 43.8 | 1.2 | 5.8 | 60.6 |
| 2017 | 89.3 | 247.1 | 1,308.2 | 0.9 | 38.3 | 1.2 | 8.8 | 1,693.8 |
| 2016 | 85.8 | 241.7 | 470.0 | 0.5 | 33.8 | 1.2 | 6.0 | 839.0 |
| 2015 | 82.9 | 224.6 | (6.5) | 2.0 | 36.5 | 1.2 | 5.3 | 346.0 |
| 2014 | 79.7 | 213.3 | 280.6 | 0.4 | 34.0 | 1.1 | 7.0 | 616.1 |

1 Effective July 1, 2011, ACERA adopted Section 31618.5 of the 1937 Act. In compliance with this law, employers allocate a portion of their contribution to the 401(h) account for estimated administrative cost of these benefits, in addition to contributions for the Postemployment Medical Benefits.

2 Includes voluntary advance UAAL contributions of $800.0 million for County Safety and $12.6 million for LARPD General to reduce their respective UAAL and associated contribution rates.

## Additions to Fiduciary Net Position by Source

(Dollars in Millions)

## Deductions from Fiduciary Net Position by Type

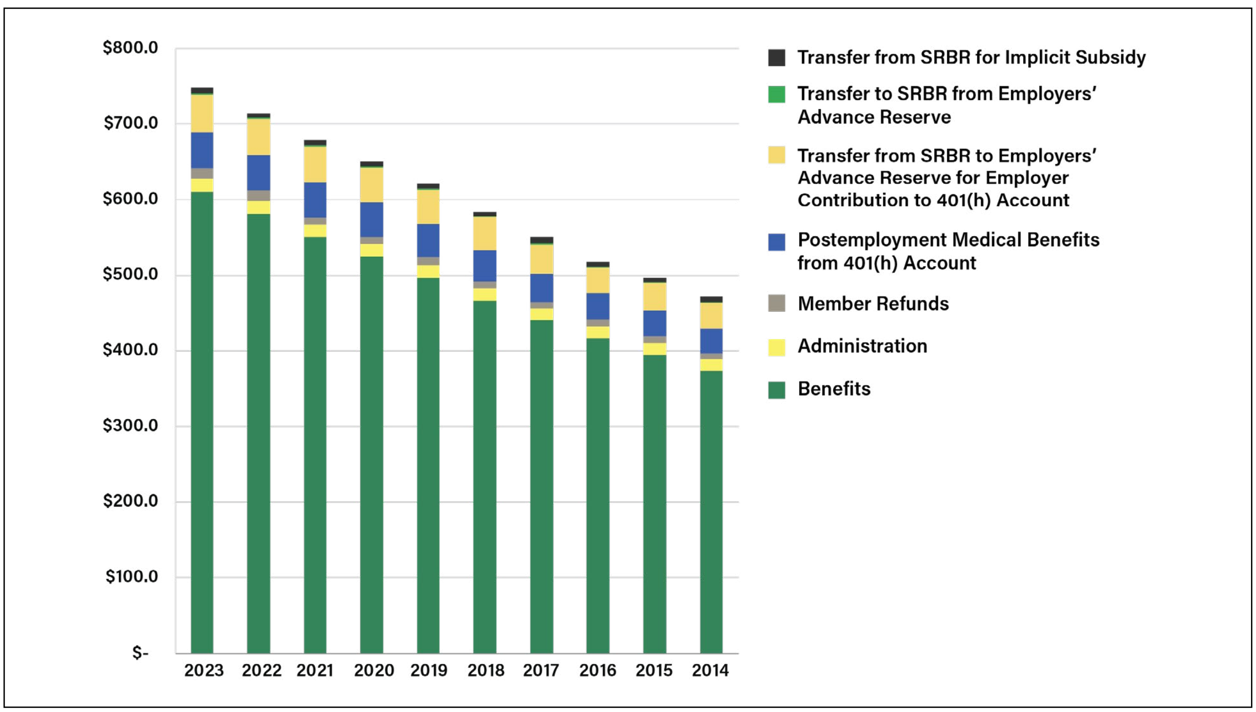
(Dollars in Millions)

| Year Ended December 31 | Benefits | Administration | Member Refunds | Postemployment Medical Benefits from 401(h) Account | Transfer from SRBR to Employers' Advance Reserve for Employer Contribution to 401(h) Account | Transfer to SRBR from Employers' Advance Reserve[1] | Transfer from SRBR for Implicit Subsidy | Total Deductions |
|---|---|---|---|---|---|---|---|---|
| 2023 | $ 606.4 | $ 17.6 | $ 13.3 | $ 47.1 | $ 49.3 | $ 1.7 | $ 7.8 | $ 743.2 |
| 2022 | 577.6 | 17.0 | 13.7 | 46.7 | 47.5 | 1.7 | 5.6 | 709.8 |
| 2021 | 546.6 | 16.6 | 9.7 | 45.9 | 46.8 | 1.5 | 7.5 | 674.6 |
| 2020 | 521.6 | 16.2 | 9.2 | 46.0 | 45.5 | 1.4 | 6.4 | 646.3 |
| 2019 | 493.4 | 16.6 | 10.7 | 43.6 | 44.9 | 1.4 | 6.9 | 617.5 |
| 2018 | 463.2 | 16.5 | 8.7 | 40.9 | 43.8 | 1.2 | 5.8 | 580.1 |
| 2017 | 437.4 | 15.8 | 7.9 | 37.9 | 38.3 | 1.2 | 8.8 | 547.3 |
| 2016 | 413.8 | 15.8 | 8.5 | 34.9 | 33.8 | 1.2 | 6.0 | 514.0 |
| 2015 | 392.3 | 15.4 | 9.0 | 33.7 | 36.5 | 1.2 | 5.3 | 493.4 |
| 2014 | 371.2 | 15.0 | 7.5 | 32.6 | 34.0 | 1.1 | 7.0 | 468.4 |

1 Effective July 1, 2011, ACERA adopted Section 31618.5 of the 1937 Act. In compliance with this law, employers allocate a portion of their contribution to the 401(h) account for estimated administrative cost of these benefits, in addition to contributions for the Postemployment Medical Benefits.

## Deductions from Fiduciary Net Position by Type

(Dollars in Millions)



## Changes in Pension Plan Net Position
## Last Ten Fiscal Years

For the Years Ended December 31 (Dollars in Millions)

| | 2023 | 2022 | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 |
|---|---|---|---|---|---|---|---|---|---|---|
| **ADDITIONS** | | | | | | | | | | |
| Member Contributions | $ 126.5 | $ 120.7 | $ 111.1 | $ 106.1 | $ 103.1 | $ 94.7 | $ 89.3 | $ 85.8 | $ 82.9 | $ 79.7 |
| Employer Contributions | 239.3 | 234.1 | 1,069.8[2] | 264.3 | 253.6 | 225.9 | 208.8 | 207.9 | 188.1 | 179.3 |
| **Total Contributions** | **365.8** | **354.8** | **1,180.9** | **370.4** | **356.7** | **320.6** | **298.1** | **293.7** | **271.0** | **259.0** |
| Investment and Miscellaneous Income (Net of Expenses) | 1,249.6 | (1,289.7) | 1,602.2 | 1,017.6 | 1,359.4 | (354.6) | 1,309.1 | 470.5 | (4.5) | 281.0 |
| Transfer from SRBR for Employers Contributions to 401(h) Account | 49.3 | 47.5 | 46.8 | 45.5 | 44.9 | 43.8 | 38.3 | 33.8 | 36.5 | 34.0 |
| Transfer from SRBR for Employers Implicit Subsidy | 7.8 | 5.6 | 7.5 | 6.4 | 6.9 | 5.8 | 8.8 | 6.0 | 5.3 | 7.0 |
| Earnings Allocated to Postemployment Medical Benefits Reserve | (71.6) | (86.6) | (242.6) | (56.8) | (55.2) | (72.8) | (64.5) | (58.8) | (102.8) | (179.4) |
| Earnings Allocated to Non-OPEB Reserve | (3.6) | (4.2) | (11.4) | (2.6) | (2.5) | (3.2) | (2.7) | (2.5) | (4.4) | (7.8) |
| **Total Additions** | **1,597.3** | **(972.6)** | **2,583.4** | **1,380.5** | **1,710.2** | **(60.4)** | **1,587.1** | **742.7** | **201.1** | **393.8** |
| **DEDUCTIONS** | | | | | | | | | | |
| Benefit Payments | 605.0 | 576.4 | 545.4 | 520.3 | 492.0 | 461.9 | 436.0 | 412.3 | 390.5 | 369.1 |
| Refunds | 13.3 | 13.7 | 9.7 | 9.2 | 10.7 | 8.7 | 7.9 | 8.5 | 9.0 | 7.5 |
| Administration Expenses | 15.9 | 15.3 | 15.1 | 14.8 | 15.2 | 15.3 | 14.6 | 14.6 | 14.2 | 13.9 |
| Transfer to SRBR from Employers' Advance Reserve[1] | 1.7 | 1.7 | 1.5 | 1.4 | 1.4 | 1.2 | 1.2 | 1.2 | 1.2 | 1.1 |
| **Total Deductions** | **635.9** | **607.1** | **571.7** | **545.7** | **519.3** | **487.1** | **459.7** | **436.6** | **414.9** | **391.6** |
| **Changes in Pension Plan Net Position** | **$ 961.4** | **$(1,579.7)** | **$2,011.7** | **$ 834.8** | **$1,190.9** | **$ (547.5)** | **$ 1,127.4** | **$ 306.1** | **$ (213.8)** | **$ 2.2** |

1 Effective July 1, 2011, ACERA adopted Section 31618.5 of the 1937 Act. In compliance with this law, employers allocate a portion of their contribution to the 401(h) account for estimated administrative cost of these benefits, in addition to contributions for the Postemployment Medical Benefits.

2 Includes voluntary advance UAAL contributions of $800.0 million for County Safety and $12.6 million for LARPD General to reduce their respective UAAL and associated contribution rates.

## Changes in Postemployment Medical Benefits Net Position
## Last Ten Fiscal Years

For the Years Ended December 31 (Dollars in Millions)

| | 2023 | 2022 | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 |
|---|---|---|---|---|---|---|---|---|---|---|
| **ADDITIONS** | | | | | | | | | | |
| Employer Contributions | $ 49.3 | $ 47.5 | $ 46.8 | $ 45.5 | $ 44.9 | $ 43.8 | $ 38.3 | $ 33.8 | $ 36.5 | $ 34.0 |
| Earnings Allocated to Postemployment Medical Benefits | 71.6 | 86.6 | 242.6 | 56.8 | 55.2 | 72.8 | 64.5 | 58.8 | 102.8 | 179.4 |
| Transfer from Employers' Advance Reserve to SRBR[1] | 1.7 | 1.7 | 1.5 | 1.4 | 1.4 | 1.2 | 1.2 | 1.2 | 1.2 | 1.1 |
| Transfer to SRBR Non-OPEB Reserve | (54.2) | - | - | - | - | - | - | - | - | - |
| **Total Additions** | **68.4** | **135.8** | **290.9** | **103.7** | **101.5** | **117.8** | **104.0** | **93.8** | **140.5** | **214.5** |
| **DEDUCTIONS** | | | | | | | | | | |
| Administrative Expenses[1] | 1.7 | 1.7 | 1.5 | 1.4 | 1.4 | 1.2 | 1.2 | 1.2 | 1.2 | 1.1 |
| Postemployment Medical Benefits Payments[2] | 47.1 | 46.7 | 45.9 | 46.0 | 43.6 | 40.9 | 37.9 | 34.9 | 33.7 | 32.6 |
| Transfer to Employers' Advance Reserve from SRBR for Employer Contributions to 401(h) Account | 49.3 | 47.5 | 46.8 | 45.5 | 44.9 | 43.8 | 38.3 | 33.8 | 36.5 | 34.0 |
| Transfer to Employers' Advance Reserve for Implicit Subsidy | 7.8 | 5.6 | 7.5 | 6.4 | 6.9 | 5.8 | 8.8 | 6.0 | 5.3 | 7.0 |
| **Total Deductions** | **105.9** | **101.5** | **101.7** | **99.3** | **96.8** | **91.7** | **86.2** | **75.9** | **76.7** | **74.7** |
| **Changes in Postemployment Medical Benefits Net Position** | **$ (37.5)** | **$ 34.3** | **$ 189.2** | **$ 4.4** | **$ 4.7** | **$ 26.1** | **$ 17.8** | **$ 17.9** | **$ 63.8** | **$ 139.8** |

1 Effective July 1, 2011, ACERA adopted Section 31618.5 of the 1937 Act. In compliance with this law, employers allocate a portion of their contribution to the 401(h) account for estimated administrative cost of these benefits, in addition to contributions for the Postemployment Medical Benefits.

2 Postemployment Medical Benefits are paid from the 401(h) account.

## Changes in Non-OPEB Net Position
## Last Ten Fiscal Years

For the Years Ended December 31 (Dollars in Millions)

| | 2023 | 2022 | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 |
|---|---|---|---|---|---|---|---|---|---|---|
| **ADDITIONS** | | | | | | | | | | |
| Earnings Allocated to Non-OPEB | $ 3.6 | $ 4.2 | $ 11.4 | $ 2.6 | $ 2.5 | $ 3.2 | $ 2.7 | $ 2.5 | $ 4.4 | $ 7.8 |
| Transfer from SRBR OPEB Reserve | 54.2 | - | - | - | - | - | - | - | - | - |
| **Total Additions** | **57.8** | **4.2** | **11.4** | **2.6** | **2.5** | **3.2** | **2.7** | **2.5** | **4.4** | **7.8** |
| **DEDUCTIONS** | | | | | | | | | | |
| Non-OPEB Payments | 1.4 | 1.2 | 1.2 | 1.3 | 1.4 | 1.3 | 1.4 | 1.5 | 1.8 | 2.1 |
| **Total Deductions** | **1.4** | **1.2** | **1.2** | **1.3** | **1.4** | **1.3** | **1.4** | **1.5** | **1.8** | **2.1** |
| **Changes in Non-OPEB Net Position** | **$ 56.4** | **$ 3.0** | **$ 10.2** | **$ 1.3** | **$ 1.1** | **$ 1.9** | **$ 1.3** | **$ 1.0** | **$ 2.6** | **$ 5.7** |

## Benefit and Refund Deductions Combined from Pension Plan, Postemployment Medical Benefits[1], and Non-OPEB Net Position by Type
### Last Ten Fiscal Years
For the Years Ended December 31 (Dollars in Thousands)

| | 2023 | 2022 | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Type of Benefit** | | | | | | | | | | |
| **Age and Service Benefits:** | | | | | | | | | | |
| Retirees | $ 552,457 | $ 526,779 | $ 502,012 | $ 482,905 | $ 456,754 | $429,651 | $ 406,234 | $ 383,144 | $362,618 | $344,463 |
| Survivors | 34,685 | 33,271 | 30,587 | 27,232 | 26,448 | 24,699 | 22,962 | 21,226 | 21,878 | 20,070 |
| **Death in Service Benefits:** | | | | | | | | | | |
| Survivors | 4,453 | 4,181 | 4,394 | 3,140 | 3,052 | 3,050 | 2,967 | 2,809 | 2,797 | 2,791 |
| **Disability Benefits:** | | | | | | | | | | |
| Retirees - Duty | 52,362 | 50,371 | 46,297 | 45,597 | 42,219 | 38,996 | 35,691 | 33,964 | 31,543 | 29,948 |
| Retirees - Non-duty | 4,805 | 4,966 | 4,815 | 4,409 | 4,775 | 4,199 | 4,115 | 4,264 | 4,165 | 3,944 |
| Supplemental Disability | 36 | 55 | 53 | 78 | 78 | 53 | 72 | 220 | 121 | 19 |
| Survivors | 4,660 | 4,712 | 4,384 | 4,239 | 3,696 | 3,465 | 3,258 | 3,052 | 2,871 | 2,592 |
| **Total Benefits** | **$653,458** | **$624,335** | **$592,542** | **$567,600** | **$537,022** | **$504,113** | **$475,299** | **$448,679** | **$425,993** | **$403,827** |
| **Type of Refund** | | | | | | | | | | |
| Death | $ 3,837 | $ 2,849 | $ 2,948 | $ 2,492 | $ 1,940 | $ 2,154 | $ 1,822 | $ 1,501 | $ 1,542 | $ 313 |
| Miscellaneous | 35 | 13 | 93 | 37 | 135 | 21 | 56 | 295 | 14 | 25 |
| Separation | 9,421 | 10,851 | 6,603 | 6,655 | 8,650 | 6,534 | 6,015 | 6,675 | 7,435 | 7,115 |
| **Total Refunds** | **$ 13,293** | **$ 13,713** | **$ 9,644** | **$ 9,184** | **$ 10,725** | **$ 8,709** | **$ 7,893** | **$ 8,471** | **$ 8,991** | **$ 7,453** |

1 Postemployment Medical Benefits are paid from the 401(h) account.

## Benefit and Refund Deductions from Pension Plan Net Position by Type
## Last Ten Fiscal Years

For the Years Ended December 31 (Dollars in Thousands)

| | 2023 | 2022 | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Type of Benefit** | | | | | | | | | | |
| **Age and Service Benefits:** | | | | | | | | | | |
| Retirees | $ 510,303 | $ 485,024 | $ 460,979 | $ 441,185 | $417,295 | $392,589 | $371,716 | $351,440 | $331,998 | $ 314,702 |
| Survivors | 34,057 | 32,645 | 29,909 | 26,492 | 25,707 | 23,974 | 22,191 | 20,406 | 20,937 | 19,041 |
| **Death in Service Benefits:** | | | | | | | | | | |
| Survivors | 4,396 | 4,134 | 4,351 | 3,096 | 3,000 | 2,993 | 2,908 | 2,744 | 2,730 | 2,715 |
| **Disability Benefits:** | | | | | | | | | | |
| Retirees - Duty | 47,409 | 45,541 | 41,602 | 41,363 | 38,169 | 35,250 | 32,296 | 30,667 | 28,302 | 26,727 |
| Retirees - Non-duty | 4,223 | 4,376 | 4,212 | 3,848 | 4,197 | 3,654 | 3,606 | 3,753 | 3,638 | 3,424 |
| Supplemental Disability | 36 | 55 | 53 | 78 | 78 | 52 | 72 | 220 | 121 | 19 |
| Survivors | 4,599 | 4,665 | 4,330 | 4,170 | 3,616 | 3,391 | 3,188 | 2,984 | 2,811 | 2,536 |
| **Total Benefits** | **$605,023** | **$576,440** | **$545,436** | **$520,232** | **$492,062** | **$461,903** | **$435,977** | **$412,214** | **$390,537** | **$369,164** |
| **Type of Refund** | | | | | | | | | | |
| Death | $ 3,837 | $ 2,849 | $ 2,948 | $ 2,492 | $ 1,940 | $ 2,154 | $ 1,822 | $ 1,501 | $ 1,542 | $ 313 |
| Miscellaneous | 35 | 13 | 93 | 37 | 135 | 21 | 56 | 295 | 14 | 25 |
| Separation | 9,421 | 10,851 | 6,603 | 6,655 | 8,650 | 6,534 | 6,015 | 6,675 | 7,435 | 7,115 |
| **Total Refunds** | **$ 13,293** | **$ 13,713** | **$ 9,644** | **$ 9,184** | **$ 10,725** | **$ 8,709** | **$ 7,893** | **$ 8,471** | **$ 8,991** | **$ 7,453** |

## Benefit and Refund Deductions from Postemployment Medical Benefits Net Position by Type[1]
## Last Ten Fiscal Years

For the Years Ended December 31 (Dollars in Thousands)

| | 2023 | 2022 | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Type of Benefit** | | | | | | | | | | |
| **Age and Service Benefits:** | | | | | | | | | | |
| Retirees | $ 41,898 | $ 41,525 | $ 40,811 | $ 41,440 | $ 39,127 | $36,720 | $ 34,116 | $31,239 | $30,050 | $29,030 |
| Survivors | - | - | - | - | - | - | - | - | - | - |
| **Disability Benefits:** | | | | | | | | | | |
| Retirees - Duty | 4,628 | 4,623 | 4,526 | 4,044 | 3,890 | 3,643 | 3,310 | 3,209 | 3,152 | 3,094 |
| Retirees - Non-duty | 546 | 563 | 580 | 537 | 545 | 515 | 478 | 479 | 484 | 466 |
| Supplemental Disability | - | - | - | - | - | 1 | - | - | - | - |
| Survivors | - | - | - | - | - | - | - | - | - | - |
| **Total Benefits** | **$47,072** | **$46,711** | **$45,917** | **$46,021** | **$43,562** | **$40,879** | **$37,904** | **$34,927** | **$33,686** | **$32,590** |

1 Postemployment Medical Benefits are paid from the 401(h) account.

## Benefit and Refund Deductions from Non-OPEB Net Position by Type
## Last Ten Fiscal Years

For the Years Ended December 31 (Dollars in Thousands)

| | 2023 | 2022 | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Type of Benefit** | | | | | | | | | | |
| **Age and Service Benefits:** | | | | | | | | | | |
| Retirees | $ 256 | $ 230 | $ 222 | $ 280 | $ 332 | $ 342 | $ 402 | $ 465 | $ 570 | $ 731 |
| Survivors | 628 | 626 | 678 | 740 | 741 | 725 | 771 | 820 | 941 | 1,029 |
| **Death in Service Benefits:** | | | | | | | | | | |
| Survivors | 57 | 47 | 43 | 44 | 52 | 57 | 59 | 65 | 67 | 76 |
| **Disability Benefits:** | | | | | | | | | | |
| Retirees - Duty | 325 | 207 | 169 | 190 | 160 | 103 | 85 | 88 | 89 | 127 |
| Retirees - Non-duty | 36 | 27 | 23 | 24 | 33 | 30 | 31 | 32 | 43 | 54 |
| Supplemental Disability | - | - | - | - | - | - | - | - | - | - |
| Survivors | 61 | 47 | 54 | 69 | 80 | 74 | 70 | 68 | 60 | 56 |
| **Total Benefits** | **$ 1,363** | **$ 1,184** | **$ 1,189** | **$ 1,347** | **$ 1,398** | **$ 1,331** | **$ 1,418** | **$ 1,538** | **$ 1,770** | **$ 2,073** |

## Benefit Expenses by Type
## (Actuary's Exhibit 8)

For the Years Ended December 31[1] (Dollars in Thousands)

| | 2023 | 2022 | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Service Retirement Payroll** | | | | | | | | | | |
| Basic | $385,811 | $ 369,103 | $ 352,518 | $ 337,357 | $ 321,874 | $ 304,103 | $ 290,499 | $ 275,935 | $ 263,509 | $ 253,426 |
| COLA | 125,168 | 117,864 | 110,264 | 103,891 | 96,957 | 89,585 | 82,757 | 75,702 | 69,398 | 64,455 |
| **Total** | **510,979** | **486,967** | **462,782** | **441,248** | **418,831** | **393,688** | **373,256** | **351,637** | **332,907** | **317,881** |
| **Disability Retiree Payroll** | | | | | | | | | | |
| Basic | 38,936 | 37,865 | 34,979 | 33,707 | 31,974 | 30,196 | 27,674 | 26,572 | 24,793 | 23,583 |
| COLA | 13,028 | 12,226 | 11,334 | 10,669 | 9,929 | 9,335 | 8,569 | 8,003 | 7,385 | 6,987 |
| **Total** | **51,964** | **50,091** | **46,313** | **44,376** | **41,903** | **39,531** | **36,243** | **34,575** | **32,178** | **30,570** |
| **Beneficiaries and Survivors Payroll** | | | | | | | | | | |
| Basic | 27,400 | 26,117 | 24,986 | 23,116 | 21,904 | 20,697 | 19,179 | 18,643 | 17,495 | 16,675 |
| COLA | 19,084 | 18,023 | 17,017 | 15,357 | 14,491 | 13,710 | 12,627 | 11,844 | 10,975 | 10,242 |
| **Total** | **46,484** | **44,140** | **42,003** | **38,473** | **36,395** | **34,407** | **31,806** | **30,487** | **28,470** | **26,917** |
| **Total** | **$609,427** | **$ 581,198** | **$ 551,098** | **$ 524,097** | **$ 497,129** | **$ 467,626** | **$ 441,305** | **$ 416,699** | **$ 393,555** | **$ 375,368** |

1 As permitted by the Actuarial Standard of Practice No. 4 (Measuring Pension Obligations), the actuarial valuation has been prepared based on participant data provided by ACERA as of November 30.

## Retired Members by Type of Benefit and Option Selected
## Summary of Monthly Allowances Being Paid for the Month of December 31, 2023[1]
## (Actuary's Exhibit 9)

| | | Monthly Allowance | | |
|---|---|---|---|---|
| | **Number** | **Basic** | **Cost of Living** | **Total** |
| **GENERAL MEMBERS** | | | | |
| **Service Retirement** | | | | |
| Unmodified | 6,304 | $21,466,100 | $6,911,788 | $28,377,888 |
| Option 1 | 534 | 1,562,001 | 358,270 | 1,920,271 |
| Option 2 | 486 | 1,348,025 | 343,834 | 1,691,859 |
| Option 3 | 23 | 66,042 | 21,304 | 87,346 |
| Option 4 | 37 | 108,240 | 22,087 | 130,327 |
| **Total** | **7,384** | **24,550,408** | **7,657,283** | **32,207,691** |
| **Disability** | | | | |
| Unmodified | 565 | 1,286,272 | 548,790 | 1,835,062 |
| Option 1 | 25 | 50,144 | 16,141 | 66,285 |
| Option 2 | 4 | 8,270 | 1,390 | 9,660 |
| Option 3 | 3 | 7,686 | 2,144 | 9,830 |
| Option 4 | 1 | 2,863 | 414 | 3,277 |
| **Total** | **598** | **1,355,235** | **568,879** | **1,924,114** |
| **Beneficiaries** | 1,027 | 1,509,797 | 1,100,406 | 2,610,203 |
| **Total General** | **9,009** | **$27,415,440** | **$9,326,568** | **$36,742,008** |

| | | Monthly Allowance | | |
|---|---|---|---|---|
| | **Number** | **Basic** | **Cost of Living** | **Total** |
| **SAFETY MEMBERS** | | | | |
| **Service Retirement** | | | | |
| Unmodified | 1,116 | $6,681,574 | $2,572,465 | $9,254,039 |
| Option 1 | 52 | 267,731 | 50,734 | 318,465 |
| Option 2 | 127 | 605,774 | 138,167 | 743,941 |
| Option 3 | 4 | 31,934 | 9,937 | 41,871 |
| Option 4 | 2 | 13,497 | 2,100 | 15,597 |
| **Total** | **1,301** | **7,600,510** | **2,773,403** | **10,373,913** |
| **Disability** | | | | |
| Unmodified | 391 | 1,843,765 | 503,361 | 2,347,126 |
| Option 1 | 6 | 19,094 | 6,294 | 25,388 |
| Option 2 | 2 | 3,371 | 978 | 4,349 |
| Option 3 | 4 | 18,998 | 5,709 | 24,707 |
| Option 4 | 1 | 4,239 | 441 | 4,680 |
| **Total** | **404** | **1,889,467** | **516,783** | **2,406,250** |
| **Beneficiaries** | 312 | 773,499 | 489,901 | 1,263,400 |
| **Total Safety** | **2,017** | **$10,263,476** | **$3,780,087** | **$14,043,563** |
| **Total General and Safety** | **11,026** | **$37,678,916** | **$13,106,655** | **$50,785,571** |

1 As permitted by the Actuarial Standard of Practice No. 4 (Measuring Pension Obligations), the actuarial valuation has been prepared based on participant data provided by ACERA as of November 30.

## Retired Members by Type of Benefit – Pension Plan

As of December 31, 2023

| | | Type of Benefit | | | | | | | Option Selected | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Amount of Monthly Benefit | Number of Retired Members | Duty Disability Retirement | Non-Duty Disability Retirement | DRO Lifetime Annuity | Service Retirement | Survivorship | Continuance | Supplemental Disability | Unmodified—60% Contingent Joint & Survivor | Option 1—Single Life | Option 2—100% Contingent Joint & Survivor | Option 3—50% Contingent Joint & Survivor | Option 4—33% Contingent Joint & Survivor |
| $ 1 to $ 1,000 | 1,132 | 9 | 8 | 76 | 810 | 26 | 203 | - | 932 | 79 | 112 | 4 | 5 |
| 1,001 to 2,000 | 1,841 | 32 | 68 | 55 | 1,407 | 52 | 227 | - | 1,565 | 128 | 134 | 4 | 10 |
| 2,001 to 3,000 | 1,807 | 240 | 48 | 29 | 1,319 | 20 | 151 | - | 1,573 | 127 | 95 | 6 | 6 |
| 3,001 to 4,000 | 1,430 | 163 | 17 | 24 | 1,093 | 14 | 118 | 1 | 1,264 | 94 | 59 | 6 | 7 |
| 4,001 to 5,000 | 1,045 | 118 | 5 | 11 | 812 | 5 | 94 | - | 924 | 60 | 55 | 2 | 4 |
| 5,001 to 6,000 | 841 | 142 | 1 | 6 | 633 | 4 | 55 | - | 754 | 46 | 33 | 3 | 5 |
| 6,001 to 7,000 | 640 | 39 | 2 | 6 | 553 | 2 | 38 | - | 561 | 45 | 31 | - | 3 |
| 7,001 to 8,000 | 545 | 31 | 1 | 1 | 480 | 3 | 29 | - | 484 | 27 | 32 | - | 2 |
| 8,001 to 9,000 | 404 | 22 | - | - | 358 | - | 24 | - | 376 | 10 | 16 | - | 2 |
| 9,001 to 10,000 | 329 | 17 | - | 2 | 294 | 1 | 15 | - | 312 | 8 | 9 | - | - |
| Over $10,000 | 990 | 40 | 1 | 1 | 915 | 4 | 29 | - | 899 | 31 | 53 | 5 | 2 |
| **Total** | **11,004** | **853** | **151** | **211** | **8,674** | **131** | **983** | **1** | **9,644** | **655** | **629** | **30** | **46** |

## Retired Members by Type of Benefit – Postemployment Medical Benefits

As of December 31, 2023

| | | Type of Benefit | | | | | | | Option Selected | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Amount of Monthly Benefit | Number of Retired Members | Duty Disability Retirement | Non-Duty Disability Retirement | DRO Lifetime Annuity | Service Retirement | Survivorship | Continuance | Supplemental Disability | Unmodified - 60% Contingent Joint & Survivor | Option 1 - Single Life | Option 2 - 100% Contingent Joint & Survivor | Option 3 - 50% Contingent Joint & Survivor | Option 4 - 33% Contingent Joint & Survivor |
| $ 1 to $ 300 | 3,269 | 383 | 76 | - | 2,810 | - | - | - | 2,847 | 166 | 230 | 16 | 10 |
| 301 to 600 | 4,374 | 266 | 59 | - | 4,049 | - | - | - | 3,875 | 295 | 172 | 6 | 26 |
| 601 to 900 | 902 | 201 | 3 | - | 698 | - | - | - | 775 | 71 | 48 | 4 | 4 |
| **Total** | **8,545** | **850** | **138** | **-** | **7,557** | **-** | **-** | **-** | **7,497** | **532** | **450** | **26** | **40** |

## Retired Members by Type of Benefit – Non-OPEB

As of December 31, 2023

| | | Type of Benefit | | | | | | | Option Selected | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Amount of Monthly Benefit | Number of Retired Members | Duty Disability Retirement | Non-Duty Disability Retirement | DRO Lifetime Annuity | Service Retirement | Survivorship | Continuance | Supplemental Disability | Unmodified - 60% Contingent Joint & Survivor | Option 1 - Single Life | Option 2 - 100% Contingent Joint & Survivor | Option 3 - 50% Contingent Joint & Survivor | Option 4 - 33% Contingent Joint & Survivor |
| $ 1 to $ 300 | 423 | 110 | 16 | 1 | 166 | 19 | 111 | - | 406 | 10 | 7 | - | - |
| 301 to 600 | 54 | 16 | 3 | - | 9 | 1 | 25 | - | 53 | 1 | - | - | - |
| 601 to 900 | 6 | - | - | - | 3 | - | 3 | - | 6 | - | - | - | - |
| 901 to 1,200 | 11 | 1 | - | - | - | 1 | 9 | - | 11 | - | - | - | - |
| 1,201 to 1,500 | 6 | 3 | - | - | 1 | - | 2 | - | 6 | - | - | - | - |
| 1,501 to 1,800 | 2 | - | - | - | - | 1 | 1 | - | 2 | - | - | - | - |
| **Total** | **502** | **130** | **19** | **1** | **179** | **22** | **151** | **-** | **484** | **11** | **7** | **-** | **-** |

## Average Pension Benefit Payments (Actuary's Exhibit 6) Last Ten Fiscal Years

| Retirement Effective Dates[1] | Years of Service | | | | | | | Incomplete Data |
|---|---|---|---|---|---|---|---|---|
| | 0–4 | 5–9 | 10–14 | 15–19 | 20–24 | 25–29 | 30+ | |
| **Period 1/1/14–12/31/14** | | | | | | | | |
| Average Monthly Pension Benefit | $ 851 | $ 1,230 | $ 1,874 | $ 2,904 | $ 3,481 | $ 5,438 | $ 6,204 | N/A |
| Average Final Average Salary | $ 9,411 | $ 6,884 | $ 6,929 | $ 7,397 | $ 7,290 | $ 8,700 | $ 8,095 | N/A |
| Number of Retired Members Added | 21 | 36 | 102 | 59 | 85 | 89 | 62 | 44 |
| **Period 1/1/15–12/31/15** | | | | | | | | |
| Average Monthly Pension Benefit | $ 1,004 | $ 1,642 | $ 1,912 | $ 2,722 | $ 3,682 | $ 5,164 | $ 6,238 | N/A |
| Average Final Average Salary | $ 9,461 | $ 7,007 | $ 6,933 | $ 7,198 | $ 7,752 | $ 8,271 | $ 8,205 | N/A |
| Number of Retired Members Added | 24 | 45 | 92 | 62 | 76 | 63 | 68 | 39 |
| **Period 1/1/16–12/31/16** | | | | | | | | |
| Average Monthly Pension Benefit | $ 998 | $ 1,820 | $ 1,742 | $ 2,737 | $ 3,456 | $ 5,217 | $ 6,164 | N/A |
| Average Final Average Salary | $ 13,095 | $10,334 | $10,108 | $ 7,775 | $ 7,960 | $ 9,002 | $ 8,324 | N/A |
| Number of Retired Members Added | 22 | 54 | 89 | 76 | 82 | 81 | 75 | 44 |
| **Period 1/1/17–12/31/17** | | | | | | | | |
| Average Monthly Pension Benefit | $ 597 | $ 1,749 | $ 2,051 | $ 2,527 | $ 3,896 | $ 4,624 | $ 7,324 | N/A |
| Average Final Average Salary | $ 8,571 | $ 7,388 | $ 7,629 | $ 7,037 | $ 7,679 | $ 7,751 | $ 9,185 | N/A |
| Number of Retired Members Added | 30 | 50 | 87 | 76 | 83 | 82 | 69 | 35 |
| **Period 1/1/18–12/31/18** | | | | | | | | |
| Average Monthly Pension Benefit | $ 983 | $ 1,565 | $ 1,988 | $ 2,985 | $ 4,179 | $ 4,590 | $ 6,873 | N/A |
| Average Final Average Salary | $ 8,091 | $ 7,099 | $ 7,238 | $ 7,636 | $ 8,163 | $ 7,878 | $ 9,204 | N/A |
| Number of Retired Members Added | 20 | 64 | 101 | 97 | 87 | 92 | 87 | 35 |
| **Period 1/1/19–12/31/19** | | | | | | | | |
| Average Monthly Pension Benefit | $ 846 | $ 1,459 | $ 2,315 | $ 3,140 | $ 4,329 | $ 5,528 | $ 7,080 | N/A |
| Average Final Average Salary | $ 10,462 | $ 8,150 | $ 7,943 | $ 8,143 | $ 8,278 | $ 9,036 | $ 9,143 | N/A |
| Number of Retired Members Added | 43 | 61 | 89 | 88 | 95 | 93 | 98 | 23 |
| **Period 1/1/20–12/31/20** | | | | | | | | |
| Average Monthly Pension Benefit | $ 1,170 | $ 1,782 | $ 2,439 | $ 3,396 | $ 4,639 | $ 5,139 | $ 7,717 | N/A |
| Average Final Average Salary | $ 9,793 | $ 8,479 | $ 9,045 | $ 8,413 | $ 9,378 | $ 8,605 | $ 9,925 | N/A |
| Number of Retired Members Added | 21 | 60 | 80 | 73 | 102 | 65 | 107 | 32 |
| **Period 1/1/21–12/31/21** | | | | | | | | |
| Average Monthly Pension Benefit | $ 886 | $ 1,508 | $ 2,723 | $ 3,095 | $ 4,750 | $ 6,506 | $ 7,300 | N/A |
| Average Final Average Salary | $ 9,948 | $ 8,952 | $ 9,165 | $ 7,774 | $ 9,576 | $10,321 | $ 9,661 | N/A |
| Number of Retired Members Added | 35 | 65 | 77 | 78 | 113 | 63 | 101 | 48 |
| **Period 1/1/22–12/31/22** | | | | | | | | |
| Average Monthly Pension Benefit | $ 680 | $ 1,682 | $ 2,638 | $ 3,611 | $ 4,875 | $ 6,245 | $ 6,991 | N/A |
| Average Final Average Salary | $ 9,359 | $ 8,726 | $ 9,219 | $ 9,495 | $ 9,532 | $ 9,989 | $ 9,260 | N/A |
| Number of Retired Members Added | 22 | 62 | 99 | 63 | 140 | 76 | 96 | 30 |
| **Period 1/1/23–12/31/23** | | | | | | | | |
| Average Monthly Pension Benefit | $ 928 | $ 1,668 | $ 2,304 | $ 3,642 | $ 4,333 | $ 6,733 | $ 7,688 | N/A |
| Average Final Average Salary | $ 9,582 | $ 8,859 | $ 9,000 | $ 9,330 | $ 8,772 | $10,406 | $ 9,913 | N/A |
| Number of Retired Members Added | 25 | 61 | 69 | 68 | 122 | 63 | 106 | 38 |

1 As permitted by the Actuarial Standard of Practice No. 4 (Measuring Pension Obligations), the actuarial valuation has been prepared based on participant data provided by ACERA as of November 30.

## Average Monthly Other Postemployment Benefits (OPEB)
## (Actuary's SRBR Exhibit 4)
## Last Ten Fiscal Years
## Includes Monthly Medical Allowance, Dental, Vision, and Medicare Part B

| Retirement Effective Dates[1] | Years of Service | | | | | | |
|---|---|---|---|---|---|---|---|
| | 0–4 | 5–9 | 10–14 | 15–19 | 20–24 | 25–29 | 30 & Over |
| **Period 1/1/14–12/31/14** | | | | | | | |
| Average OPEB | $ 0[2] | $ 0[2] | $ 207 | $ 298 | $ 498 | $ 471 | $ 484 |
| Number of Retired Members Added | 18 | 31 | 95 | 54 | 78 | 77 | 68 |
| **Period 1/1/15–12/31/15** | | | | | | | |
| Average OPEB | $ 0 | $ 0 | $ 273 | $ 326 | $ 461 | $ 483 | $ 538 |
| Number of Retired Members Added | 23 | 34 | 79 | 53 | 67 | 58 | 74 |
| **Period 1/1/16–12/31/16** | | | | | | | |
| Average OPEB | $ 0 | $ 0 | $ 205 | $ 337 | $ 504 | $ 502 | $ 567 |
| Number of Retired Members Added | 21 | 48 | 76 | 69 | 63 | 74 | 75 |
| **Period 1/1/17–12/31/17** | | | | | | | |
| Average OPEB | $ 0 | $ 0 | $ 227 | $ 398 | $ 509 | $ 528 | $ 522 |
| Number of Retired Members Added | 26 | 40 | 76 | 72 | 75 | 78 | 76 |
| **Period 1/1/18–12/31/18** | | | | | | | |
| Average OPEB | $ 0 | $ 0 | $ 207 | $ 389 | $ 483 | $ 527 | $ 565 |
| Number of Retired Members Added | 16 | 52 | 87 | 85 | 75 | 83 | 99 |
| **Period 1/1/19–12/31/19** | | | | | | | |
| Average OPEB | $ 0 | $ 0 | $ 195 | $ 373 | $ 498 | $ 544 | $ 541 |
| Number of Retired Members Added | 37 | 55 | 71 | 81 | 84 | 86 | 102 |
| **Period 1/1/20–12/31/20** | | | | | | | |
| Average OPEB | $ 0 | $ 0 | $ 199 | $ 380 | $ 545 | $ 574 | $ 542 |
| Number of Retired Members Added | 18 | 52 | 67 | 62 | 88 | 59 | 113 |
| **Period 1/1/21–12/31/21** | | | | | | | |
| Average OPEB | $ 0 | $ 6 | $ 203 | $ 341 | $ 469 | $ 547 | $ 584 |
| Number of Retired Members Added | 30 | 55 | 65 | 63 | 97 | 53 | 103 |
| **Period 1/1/22–12/31/22** | | | | | | | |
| Average OPEB | $ 0 | $ 0 | $ 213 | $ 369 | $ 523 | $ 503 | $ 593 |
| Number of Retired Members Added | 19 | 52 | 83 | 55 | 129 | 61 | 101 |
| **Period 1/1/23–12/31/23** | | | | | | | |
| Average OPEB | $ 0 | $ 0 | $ 272 | $ 362 | $ 480 | $ 521 | $ 539 |
| Number of Retired Members Added | 21 | 56 | 59 | 59 | 117 | 54 | 95 |

1 As permitted by the Actuarial Standard of Practice Statement No. 6 (Measuring Retiree Group Benefit Obligations), the actuarial valuation has been prepared based on participant data provided by ACERA as of November 30.

2 Dental and vision subsidies ended in 2014 for most retired members with less than 10 years of service.

Note: The "Average Final Average Salary" is not provided since these benefits are not dependent on salary.

## Participating Employers and Active Members (Actuary's Exhibit 7) - Last Ten Years

As of November 30[1]

| | 2023 | 2022 | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 |
|---|---|---|---|---|---|---|---|---|---|---|
| **County of Alameda** | | | | | | | | | | |
| General Members | 6,609 | 6,554 | 6,655 | 6,680 | 6,707 | 6,708 | 6,681 | 6,606 | 6,601 | 6,584 |
| Safety Members | 1,404 | 1,445 | 1,423 | 1,362 | 1,376 | 1,389 | 1,436 | 1,438 | 1,437 | 1,408 |
| **Total** | **8,013** | **7,999** | **8,078** | **8,042** | **8,083** | **8,097** | **8,117** | **8,044** | **8,038** | **7,992** |
| **Other Participating Employers (General Members)** | | | | | | | | | | |
| Alameda Health System[2] | 2,690 | 2,571 | 2,486 | 2,451 | 2,409 | 2,430 | 2,431 | 2,246 | 2,205 | 2,231 |
| Alameda County Office of Education[3] | - | - | - | - | - | - | - | 1 | 1 | 1 |
| First 5 Alameda County | 96 | 67 | 69 | 70 | 67 | 62 | 60 | 55 | 52 | 50 |
| Housing Authority of the County of Alameda | 67 | 61 | 60 | 60 | 59 | 61 | 57 | 59 | 62 | 61 |
| Livermore Area Recreation & Park District | 36 | 38 | 41 | 43 | 51 | 58 | 56 | 62 | 65 | 63 |
| The Superior Court of California for the County of Alameda | 645 | 610 | 592 | 656 | 667 | 641 | 602 | 644 | 648 | 627 |
| **Total** | **3,534** | **3,347** | **3,248** | **3,280** | **3,253** | **3,252** | **3,206** | **3,067** | **3,033** | **3,033** |
| **Total Active Membership** | | | | | | | | | | |
| General Members | 10,143 | 9,901 | 9,903 | 9,960 | 9,960 | 9,960 | 9,887 | 9,673 | 9,634 | 9,617 |
| Safety Members | 1,404 | 1,445 | 1,423 | 1,362 | 1,376 | 1,389 | 1,436 | 1,438 | 1,437 | 1,408 |
| **Total** | **11,547** | **11,346** | **11,326** | **11,322** | **11,336** | **11,349** | **11,323** | **11,111** | **11,071** | **11,025** |

1 As permitted by the Actuarial Standard of Practice No. 4 (Measuring Pension Obligations), the actuarial valuation has been prepared based on participant data provided by ACERA as of November 30.

2 Formerly named Alameda County Medical Center.

3 Starting with the December 31, 2017 valuation, there were no active members from the Alameda County Office of Education; however, there were still retired members from that participating agency as of that date.

## Total Active Membership

## Principal Participating Employers for Pension Plan, Postemployment Medical Benefits and Non-OPEB Benefits - Current Year and Nine Years Ago

As of December 31

| Participating Employers | 2023 Covered Employees | 2023 Rank | 2023 Percentage of Total System | 2014 Covered Employees | 2014 Rank | 2014 Percentage of Total System |
|---|---|---|---|---|---|---|
| County of Alameda | 7,981 | 1 | 69.4 % | 7,980 | 1 | 72.4 % |
| Alameda Health System | 2,686 | 2 | 23.4 | 2,235 | 2 | 20.3 |
| The Superior Court of California for the County of Alameda | 631 | 3 | 5.5 | 627 | 3 | 5.7 |
| First 5 Alameda County | 96 | 4 | 0.8 | 50 | 6 | 0.4 |
| Housing Authority of the County of Alameda | 66 | 5 | 0.6 | 62 | 5 | 0.6 |
| Livermore Area Recreation & Park District | 35 | 6 | 0.3 | 65 | 4 | 0.6 |
| Alameda County Office of Education | - | - | - | 1 | 7 | - |
| **Total** | **11,495** | | **100 %** | **11,020** | | **100 %** |

## Employee Contribution Rates (Percent of Payroll) Last Ten Years

Fiscal Year Beginning July 1 - Effective month of September

| | County and Other Participating Employers | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | General Member | | | | Safety Member | | | | | |
| Year | Tier 1 | Tier 2 | Tier 3[1] | Tier 4 | Tier 1 | Tier 2 | Tier 2C | Tier 2D[2] | Tier 4 | Aggregate |
| 2014/2015 | 8.97 | 7.28 | 12.69 | 8.12 | 12.24 | 14.72 | 12.57 | 16.39 | 16.77 | 8.58 |
| 2015/2016 | 9.02 | 7.41 | 12.89 | 8.09 | 12.59 | 15.08 | 12.76 | 16.73 | 15.25 | 8.75 |
| 2016/2017 | 9.23 | 7.36 | 13.15 | 8.06 | 10.71 | 15.04 | 12.67 | 16.48 | 14.65 | 8.77 |
| 2017/2018 | 9.19 | 7.36 | 13.15 | 8.10 | 12.22 | 15.04 | 12.53 | 16.32 | 14.20 | 8.80 |
| 2018/2019 | 9.59 | 7.81 | 13.56 | 8.76 | 11.57 | 15.84 | 13.52 | 16.42 | 15.75 | 9.37 |
| 2019/2020 | 9.54 | 7.75 | 13.99 | 8.80 | 8.55 | 15.85 | 13.38 | 16.15 | 15.58 | 9.34 |
| 2020/2021 | 9.43 | 7.70 | 14.41 | 8.85 | 9.96 | 15.81 | 13.48 | 16.09 | 15.42 | 9.34 |
| 2021/2022 | 9.86 | 8.22 | 15.00 | 9.21 | 3.00 | 16.95 | 14.65 | 17.17 | 16.93 | 9.94 |
| 2022/2023 | 9.79 | 8.17 | 15.07 | 9.23 | 3.00 | 16.91 | 14.60 | 17.04 | 17.01 | 10.00 |
| 2023/2024 | 10.17 | 8.14 | 15.50 | 9.30 | 3.00 | 16.88 | 14.44 | 16.82 | 17.28 | 10.08 |

1 Tier 3 rate only applies to LARPD effective from October 1, 2008.

2 Rate includes the 5% cost-sharing contribution (with less than 5 years of vesting service) and 3% (with 5 or more years of vesting service).

## Employer Contribution Rates (Percent of Payroll) (Actuary's Exhibit 10)
## Last Ten Years

Fiscal Year Beginning July 1 - Effective month of September

| | County | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | General Member | | | Safety Member | | | | | |
| Year | Tier 1 | Tier 2 | Tier 4[1] | Tier 1 | Tier 2 | Tier 2C[2] | Tier 2D[2] | Tier 4[1] | Aggregate[3] |
| 2014/2015 | 19.58 | 18.66 | 17.45 | 66.88 | 49.57 | 52.29 | 47.01 | 50.68 | 25.65 |
| 2015/2016 | 20.86 | 20.11 | 19.22 | 71.82 | 54.00 | 55.81 | 51.41 | 52.72 | 27.67 |
| 2016/2017 | 20.22 | 19.39 | 18.54 | 70.87 | 52.73 | 54.05 | 50.10 | 50.89 | 26.96 |
| 2017/2018 | 20.10 | 19.37 | 18.63 | 68.31 | 53.25 | 54.64 | 51.11 | 50.90 | 27.09 |
| 2018/2019 | 22.30 | 21.57 | 20.90 | 76.41 | 61.19 | 62.54 | 59.64 | 57.92 | 30.57 |
| 2019/2020 | 22.31 | 21.40 | 20.83 | 80.60 | 62.34 | 63.63 | 61.60 | 59.20 | 30.46 |
| 2020/2021 | 22.90 | 21.92 | 21.43 | 83.07 | 63.66 | 64.94 | 63.31 | 60.49 | 30.98 |
| 2021/2022[4] | 25.54 | 24.05 | 23.79 | 88.95 | 69.15 | 73.87 | 69.83 | 66.52 | 33.86 |
| 2022/2023 | 24.75 | 23.20 | 23.01 | 43.64 | 23.84 | 29.18 | 24.60 | 21.44 | 23.15 |
| 2023/2024 | 24.77 | 23.19 | 23.10 | 42.29 | 25.53 | 30.50 | 26.37 | 23.55 | 23.57 |

| | AHS, Superior Court and First 5 | | | Other Participating Employers | Housing Authority | Housing Authority / Alameda County Office of Education[5] | LARPD[6] | | |
|---|---|---|---|---|---|---|---|---|---|
| | General Member | | | General Member | | | General Member | | |
| Year | Tier 1 | Tier 2 | Tier 4[1] | Tier 1 | Tier 2 | Tier 4[1] | Tier 1 | Tier 3 | Tier 4[1] |
| 2014/2015 | 20.08 | 19.16 | 17.95 | 25.32 | 24.40 | 23.19 | - | 30.37 | 23.69 |
| 2015/2016 | 21.42 | 20.67 | 19.78 | 26.69 | 25.94 | 25.05 | - | 29.32 | 22.87 |
| 2016/2017 | 20.84 | 20.01 | 19.16 | 26.22 | 25.39 | 24.54 | - | 26.17 | 19.29 |
| 2017/2018 | 20.81 | 20.08 | 19.34 | 26.21 | 25.48 | 24.74 | - | 26.39 | 19.76 |
| 2018/2019 | 23.06 | 22.33 | 21.66 | 28.32 | 27.59 | 26.92 | - | 29.77 | 23.12 |
| 2019/2020 | 23.13 | 22.22 | 21.65 | 28.34 | 27.43 | 26.86 | 33.62 | 38.41 | 32.14 |
| 2020/2021 | 23.77 | 22.79 | 22.30 | 28.97 | 27.99 | 27.50 | 38.07 | 43.82 | 36.60 |
| 2021/2022[4] | 26.48 | 24.99 | 24.73 | 31.72 | 30.23 | 29.97 | 42.96 | 48.02 | 41.21 |
| 2022/2023 | 25.72 | 24.17 | 23.98 | 30.93 | 29.38 | 29.19 | 10.97 | 16.41 | 9.23 |
| 2023/2024 | 25.80 | 24.22 | 24.13 | 30.95 | 29.37 | 29.28 | 10.97 | 17.15 | 9.30 |

1 Resulting from CalPEPRA legislation. Tier 4 became effective January 1, 2013.

2 New Sheriff's Department employees (excluding Probation Officers) hired on or after October 17, 2010.

3 The aggregate rate is based on payroll as of the prior December 31 date.

4 Employer rates for County Safety and LARPD General groups were adjusted effective FY 2021/2022 to reflect the voluntary UAAL contributions made by the County and LARPD, respectively, in June 2021. The adjusted employer rates are as follows:

| County - Safety | | | | | LARPD - General | | |
|---|---|---|---|---|---|---|---|
| Tier 1 | Tier 2 | Tier 2C | Tier 2D | Tier 4 | Tier 1 | Tier 3 | Tier 4 |
| 46.10% | 26.30% | 31.02% | 26.98% | 23.67% | 14.88% | 19.94% | 13.13% |

5 Rate applied to Alameda County Office of Education (ACOE) before the December 31, 2018 valuation. Effective with the December 31, 2018 valuation, ACOE's contribution is expressed as a level dollar amount based on the declining employer payroll policy.

6 Tier 1 rate combined with Other Participating Employers before the December 31, 2018 valuation.

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# Compliance

**Independent Auditor's Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards***

Board of Retirement
Alameda County Employees' Retirement Association
Oakland, California

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the Alameda County Employees' Retirement Association (ACERA), as of and for the year ended December 31, 2023, and the related notes to the financial statements, which collectively comprise ACERA's basic financial statements, and have issued our report thereon dated June 26, 2024.

**Report on Internal Control Over Financial Reporting**

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

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

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

**WILLIAMS, ADLEY & COMPANY-CA, LLP**
*Certified Public Accountants / Management Consultants*
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WILLIAMS ADLEY

**Report on Compliance and Other Matters**

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

**Purpose of this Report**

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

Williams, Adley & Company-CA, LLP

Oakland, California
June 26, 2024