



**Alameda County Employees' Retirement Association
BOARD OF RETIREMENT**

**AUDIT COMMITTEE/BOARD MEETING
NOTICE and AGENDA**

ACERA MISSION:

To provide ACERA members and employers with flexible, cost-effective, participant-oriented benefits through prudent investment management and superior member services.

Thursday, May 18, 2023
12:30 p.m.

LOCATION AND TELECONFERENCE	COMMITTEE MEMBERS	
ACERA C.G. "BUD" QUIST BOARD ROOM 475 14TH Street, 10TH Floor Oakland, CA 94612-1900 Main Line: (510) 628-3000 Fax: (510) 268-9574 The public can observe the meeting and offer public comment by using the below Webinar ID and Passcode after clicking on the below link or calling the below call-in number. Link: https://zoom.us/join Call-In: 1 (669) 900-6833 US Webinar ID: 879 6337 8479 Passcode: 699406 For help joining a Zoom meeting, see: https://support.zoom.us/hc/en-us/articles/201362193	HENRY LEVY, CHAIR	TREASURER
	ROSS CLIPPINGER, VICE-CHAIR	ELECTED SAFETY
	KEITH CARSON	APPOINTED
	TARRELL GAMBLE	APPOINTED
	KELLIE SIMON	ELECTED GENERAL

The Alternate Retired Member votes in the absence of the Elected Retired Member, or, if the Elected Retired Member is present, then votes if both Elected General Members, or the Safety Member and an Elected General Member, are absent.

The Alternate Safety Member votes in the absence of the Elected Safety Member, either of the two Elected General Members, or both the Retired and Alternate Retired Members.

This is a meeting of the Audit Committee if a quorum of the Audit Committee attends, and it is a meeting of the Board if a quorum of the Board attends. This is a joint meeting of the Audit Committee and the Board if a quorum of each attends.

Note regarding accommodations: If you require a reasonable modification or accommodation for a disability, please contact ACERA between 9:00 a.m. and 5:00 p.m. at least 72 hours before the meeting at accommodation@acera.org or at 510-628-3000.

Public comments are limited to four (4) minutes per person in total. The order of items on the agenda is subject to change without notice.

Board and Committee agendas and minutes and all documents distributed to the Board or a Committee in connection with a public meeting (unless exempt from disclosure) are posted online at www.acera.org and also may be inspected at 475 14th Street, 10th Floor, Oakland, CA 94612-1900.

AUDIT COMMITTEE/BOARD MEETING

NOTICE and AGENDA, Page 2 of 3 - Thursday, May 18, 2023

Call to Order

12:30 p.m.

Roll Call

Public Comment (Time Limit: 4 minutes per speaker)

Action Items: Matters for Discussion and Possible Motion by the Committee

External Audit:

1. Discussion and possible motion to recommend approval of the December 31, 2022 Audited Financial Statements and Independent Auditor's Report

- Robert Griffin, Engagement Partner
- Kenneth Yu, Project Manager
Williams, Adley & Company-CA, LLP
- Erica Haywood

Recommendation:

Staff recommends the Audit Committee recommend that the Board of Retirement approve the December 31, 2022 Audited Financial Statements and Independent Auditor's Report.

2. Discussion and possible motion to recommend adoption of the Government Accounting Standards Board (GASB) Statement No. 67 Actuarial Valuation and addendum as of December 31, 2022

- Dirk Adamsen, Segal
- Eva Yum, Segal
- Erica Haywood

Recommendation:

Staff recommends the Audit Committee recommend that the Board of Retirement adopt the Government Accounting Standards Board (GASB) Statement No. 67 Actuarial Valuation and addendum as of December 31, 2022.

3. Discussion and possible motion to recommend adoption of the Government Accounting Standards Board (GASB) Statement No. 74 Actuarial Valuation and addendum as of December 31, 2022

- Dirk Adamsen, Segal
- Eva Yum, Segal
- Erica Haywood

Recommendation:

Staff recommends the Audit Committee recommend that the Board of Retirement adopt the Government Accounting Standards Board (GASB) Statement No. 74 Actuarial Valuation and addendum as of December 31, 2022.

AUDIT COMMITTEE/BOARD MEETING

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Information Items: These items are not presented for Committee action but consist of status updates and cyclical reports

Internal Audit

1. Progress report on the Internal Audit Plan - Harsh Jadhav
2. Cybersecurity Update - Vijay Jagar

Trustee Comment

Future Discussion Items

Establishment of Next Meeting Date

June 15, 2023



MEMORANDUM TO THE AUDIT COMMITTEE

DATE: May 18, 2023

TO: Members of the Audit Committee

FROM: Erica Haywood, Fiscal Services Officer *EH*

SUBJECT: December 31, 2022, Audited Financial Statements and Independent Auditor's Report

Executive Summary

Williams, Adley & Co., has completed its independent audit of ACERA's 2022 financial statements. The December 31, 2022, end-of-year financial audit encompassed ACERA's basic financial statements, that is:

- Statement of Fiduciary Net Position;
- Statement of Changes in Fiduciary Net Position;
- Notes to the Basic Financial Statements and Supplementary Information; and,
- Supplemental Schedules.

The auditor's responsibility is to express an opinion of ACERA's financial statements in accordance with the *Government Auditing Standards*. To that end, Williams Adley & Co. is here to present its findings for reasonable assurance about whether ACERA's financial statements are free from material misstatement.

Recommendation

Staff recommends that the Audit Committee recommend to the Board of Retirement that the Board accept and file the December 31, 2022, audited financial statements and independent auditor's report.

Attachment: Audited Financial Statements and Independent Auditor's Report

Alameda County Employees' Retirement Association

Financial Statements for the Year Ended
DECEMBER 31, 2022

Draft Version:
May 18, 2023



475 14TH STREET, SUITE 1000, OAKLAND, CA 94612

A Pension Trust Fund of the County of Alameda
(State of California)

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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, 2022, 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, 2022, 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, 2022, ACERA's independent actuaries determined that, at December 31, 2022, the total pension liability exceeded the pension plan's fiduciary net position by \$2.2 billion.

Net OPEB Liability of Employers

As described in note 7, based on the most recent actuarial valuation as of December 31, 2022, ACERA's independent actuaries determined that, at December 31, 2022, the total OPEB liability exceeded the OPEB plan's fiduciary net position by \$191.3 million.

Investment Valuation

As described in Note 8, the financial statements include investments valued at \$3,144,399,000 (which represents 30.5 percent of total fiduciary net position) at December 31, 2022, 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
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<http://waclip.com>



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 2021 financial statements, and our report dated June 27, 2022, expressed an unmodified opinion on those audited financial statements. In our opinion, the summarized comparative information presented herein as of and for the year ended December 31, 2021, is consistent, in all material respects, with the audited financial statements from which it has been derived.

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



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 Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated June __, 2023, 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.

Oakland, California

June __, 2023

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, 2022. 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 12](#) and the notes to the financial statements beginning on [page 15](#), 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, 2022, 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 \$10.3 billion, a \$1.5 billion decrease compared to December 31, 2021. This decrease was primarily attributable to the \$1.6 billion decrease in fair value of ACERA's investment portfolio during 2022 somewhat offset by a slight increase in current assets.

As of December 31, 2022, the Net Pension Liability (NPL) was \$2,231.3 million, compared to \$792.3 million as of

December 31, 2021. The \$1,439.0 million increase was primarily as a result of unfavorable investment return during calendar year 2022.

As of December 31, 2022, the Net OPEB Liability (Asset) NOL/(NOA) was \$191.3 million, compared to \$(420.6) million as of December 31, 2021. The \$611.9 million increase from a surplus to liability was primarily the result of the unfavorable investment return during calendar year 2022. The investment result allocations to the Supplemental Retiree Benefits Reserve (SRBR), are credited by semi-annual transfers to the reserve as defined by Article 5.5 of the County Employees' Retirement Law of 1937 (1937 Act).

As of December 31, 2021, the date of the pension plan

actuarial funding and the SRBR sufficiency actuarial valuations used for the 2022 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, 2021, ACERA had \$1.1 billion in net deferred investment gains based on the actuarial value of assets. These deferred gains represent 9.6% of the fair value¹ of assets, as of the December 31, 2021, actuarial valuation date. Unless offset by future investment losses or other unfavorable experience, the recognition of the \$1.1 billion deferred market gains is expected to have a favorable 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 12](#) 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 2022 Statement of Fiduciary Net Position.

The Statement of Changes in Fiduciary Net Position starting on [page 13](#) provides a summary view of the additions to and deductions from the fiduciary net position that occurred over the course of the 2022 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 15](#) provide additional information essential for a complete understanding of the basic financial statements.

¹ Fair value replaced "market value", as originally written by actuary.

Required Supplementary Information and Notes to Required Supplementary Information starting on [page 51](#) 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 58](#).

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, 2022 and 2021 (Dollars in Millions)

	2022	2021	Increase (Decrease) Amount	Percent Change
ASSETS				
Current Assets	\$ 191.8	\$ 179.7	\$ 12.1	7%
Investments at Fair Value	10,279.1	11,832.5	(1,553.4)	-13%
Capital Assets, net	7.6	6.2	1.4	23%
Total Assets	10,478.5	12,018.4	(1,539.9)	-13%
LIABILITIES				
Current Liabilities	180.0	177.4	2.6	1%
Long-term Lease Liabilities	-	0.1	(0.1)	N/A
Total Liabilities	180.0	177.5	2.5	1%
NET POSITION				
Restricted - Held in Trust for Benefits	\$10,298.5	\$11,840.9	\$ (1,542.4)	-13%

Table 2: Changes In Fiduciary Net Position (Condensed)

For the Years Ended December 31, 2022 and 2021 (Dollars in Millions)

	2022	2021	Increase (Decrease) Amount	Percent Change
ADDITIONS				
Member Contributions	\$ 120.7	\$ 111.1	\$ 9.6	9%
Employer Contributions	281.6	1,116.6	(835.0)	-75%
Net Investment Income (Loss)	(1,289.8)	1,601.2	(2,891.0)	-181%
Miscellaneous Income	0.1	1.0	(0.9)	-90%
Transfer to Employers' Advance Reserve from SRBR for Employer Contributions to 401(h) Account	47.5	46.8	0.7	1%
Transfer to Employers' Advance Reserve from SRBR for Implicit Subsidy	5.6	7.5	(1.9)	-25%
Transfer from Employers' Advance Reserve to SRBR for OPEB Related Administrative Expenses	1.7	1.5	0.2	13%
Total Additions	(832.6)	2,885.7	(3,718.3)	-129%
DEDUCTIONS				
Retirement Benefit Payments	577.6	546.6	31.0	6%
Postemployment Medical Benefits	46.7	45.9	0.8	2%
Member Refunds	13.7	9.7	4.0	41%
Administration	17.0	16.6	0.4	2%
Transfer from SRBR to Employers' Advance Reserve for Employer Contributions to 401(h) Account	47.5	46.8	0.7	1%
Transfer from SRBR to Employers' Advance Reserve for Implicit Subsidy	5.6	7.5	(1.9)	-25%
Transfer to SRBR from Employers' Advance Reserve for OPEB Related Administrative Expenses	1.7	1.5	0.2	13%
Total Deductions	709.8	674.6	35.2	5%
CHANGE IN NET POSITION	(1,542.4)	2,211.1	(3,753.5)	-170%
NET POSITION - JANUARY 1	11,840.9	9,629.8	2,211.1	23%
NET POSITION - DECEMBER 31	\$ 10,298.5	\$ 11,840.9	\$ (1,542.4)	-13%

Analysis of Financial Position

Fiduciary net position held in trust for benefits equals assets less liabilities. Table 1, on [page 6](#), displays the condensed information of the fiduciary net position, which as of December 31, 2022, totaled approximately \$10.3 billion. This is a \$1.5 billion or a 13% decrease from the prior year, primarily a result of a decrease 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 12](#). Total current assets increased by \$12.1 million from \$179.7 million in 2021 to \$191.8 million in 2022. This 7% increase was primarily due to increases in cash of \$5.2 million and securities lending cash collateral of \$6.4 million.

Investments at Fair Value

ACERA's investments at fair value decreased 13% from \$11.8 billion in 2021 to \$10.3 billion in 2022. The \$1.6 billion decrease was net of ACERA's \$266.0 million cash draw in 2022 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 \$6.2 million in 2021 to \$7.6 million in 2022. The net increase of \$1.4 million or 23% was due to the increase in capital expenditures for the pension administration system upgrade.

Total Assets

In all, total assets experienced a net decrease of \$1.5 billion, from \$12.0 billion in 2021 to \$10.5 billion in 2022. The decrease in total investments at fair value accounted for almost all of the decrease in total assets.

Liabilities

The components of ACERA's current liabilities are detailed in the Statement of Fiduciary Net Position on

[page 12](#). Current liabilities increased by \$2.6 million or 1% from \$177.4 million in 2021 to \$180.0 million in 2022. The net increase is mainly attributed to the \$6.4 million increase in securities lending liability partially offset by the decreases in unsettled trades-investments purchased and investment-related payables.

As of December 31, 2022, the long-term lease liability totaled less than \$0.1 million.

Analysis of Results of Operations

The change in fiduciary net position equals total additions less total deductions. Table 2, on [page 7](#), displays the condensed information about ACERA's 2022 financial activity. From January 1 to December 31, 2022, ACERA's fiduciary net position decreased by \$1.5 billion. The decrease was mainly due to depreciation 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, 2022, and 2021, were (\$0.8) billion and \$2.9 billion, respectively. ACERA's net investment income (loss) for 2022 was (\$1.3) billion, compared to \$1.6 billion in investment income in 2021. See the Net Investment Income (Loss) section on [page 9](#) for a more comprehensive discussion of this increase.

The December 31, 2021, actuarial valuation report recommended a contribution rate increases for members and employers. The Board of Retirement approved the increase to be in effect by September 2022. The aggregate member contribution rate increased from 9.98% to 10.00% of payroll. The rate increase was mainly due to changes in demographic assumptions.

The aggregate employer contribution rate decreased from

31.45% to 23.41% of payroll. This change was primarily due to (a) the contribution rate credit from additional voluntary safety and LARPD general contributions to reduce their UAAL and associated contribution rates, (b) higher than expected return on investments (after smoothing), (c) the effect of amortizing the prior year's UAAL over a larger than expected total projected payroll, offset somewhat by (d) actual contributions lower than expected, (e) higher than expected cost-of-living adjustments for continuing retirees, and (f) higher than expected salary increases for active members.

Member Contributions

Total member contributions for 2022 were \$120.7 million, up \$9.6 million or 9% over 2021 total member contributions of \$111.1 million. As previously stated, 2021 actuarial valuation contribution rates went into effect September 1, 2022.

Employer Contributions

Total employer contributions collected for 2022 were \$281.6 million, a decrease of 75% or \$835.0 million over the \$1.1 billion in total contributions collected in 2021. The \$835.0 million decrease was mainly due to \$812.6 million voluntary advance UAAL contribution payments received in 2021. The County safety and LARPD employer contribution rates decreased as a result of the employer contribution rate credits they received for their respective advance UAAL contribution payments, which resulted in the remaining decrease of employer contributions collected in 2022.

Net Investment Income (Loss)

Net investment income (loss) for 2022 was (\$1.3) billion. The \$2.9 billion decrease in net investment income was primarily due to depreciation in the fair value of invested assets. The 2022 net depreciation of investments was \$1.4 billion compared to a 2021 net appreciation of \$1.5 billion.

Miscellaneous Income

Miscellaneous income for 2022 totaled \$0.1 million, down \$0.9 million or 90% from 2021. This decrease is mainly due to a decrease 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 \$47.5 million and \$46.8 million to their 401(h) accounts for years 2022 and 2021, respectively. See 401(h) Postemployment Medical Benefits Account on [page 25](#).

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 and \$1.5 million were transferred from the employers' advance reserve to SRBR for 2022 and 2021, respectively.

There was a \$5.6 million transfer from the SRBR to the employers' advance reserve in 2022 to compensate Alameda County for the 2021 blended rate health care implicit subsidy. The implicit subsidy transfer decreased by \$1.9 million or 25% from the \$7.5 million implicit subsidy transfer in 2021. This decrease was primarily due to lower difference between the County's blended and unblended medical insurance rates for 2021 versus 2020.

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 2022 were \$709.8 million. This is \$35.2 million or a 5% increase over the \$674.6 million in total deductions for 2021. Service retirement and disability benefit payments alone increased 6% or \$31.0 million over 2021. The member refunds increased by \$4.0 million or 41% for 2022.

Retirement Benefit Payments

Retirement benefit payments in 2022 totaled \$577.6 million, a \$31.0 million or 6% increase over \$546.6

million in 2021. 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 2022 were \$46.7 million, an increase of \$0.8 million over the \$45.9 million paid from the 401(h) account in 2021. This increase was due to increase in Medicare Part-B premiums, offset by a slight premium decrease in Kaiser Senior Advantage plan and more retirees aging out of the higher premium HMO plans and enrolling in lower premium Medicare or senior advantage plans. ACERA's maximum monthly medical benefit for 2022 was \$596.73 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 \$457.13 Monthly Medical Allowance (MMA).

Member Refunds

Member refunds originate from either a member separation from service (termination) or an active member death. Member refunds increased by \$4.0 million or 41% from \$9.7 million in 2021 to \$13.7 million in 2022. The increase was primarily due to increases in termination refunds.

Administration Expense

Total administration expense for 2022 increased to \$17.0 million, from \$16.6 million in 2021. 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 49](#), further describes the legal limitations. Consequently, the administrative budget for 2022 was kept in compliance with the "1937 Act" legal spending restrictions of 0.21% of the accrued actuarial liability of the retirement system.

Administrative expenses subject to the statutory limit increased by 4% or \$0.6 million, from \$13.7 million in 2021 to \$14.3 million in 2022. 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 decreased slightly from \$2.9 million in 2021 to \$2.7 million in 2022. 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 from that judgment and the appeal is pending.

Business Continuity: Since early March 2020, ACERA has been responding to a pandemic spreading from person to person caused by a novel (new) coronavirus. The disease was named "coronavirus disease 2019" (abbreviated "COVID-19"). Throughout 2020, the virus posed a serious public health risk; consequently, ACERA was required to comply with alternative work guidelines

associated with state and county health and safety mandates. As health and safety restrictions eased in the latter half of 2020, ACERA sustained a work-from-home posture for a majority of its staff. In the early months of 2021, vaccines for the virus have become available. It was anticipated that by the end of the third quarter of 2021, enough people will be vaccinated for health and safety restrictions to ease to a level that businesses would reopen. Unfortunately, new variants of the virus that were highly transmittable emerged towards the latter part of 2021 and derailed reopening plans. 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 is actively formulating a new hybrid work arrangement for implementation 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 10, 2023

Basic Financial Statements

Statement of Fiduciary Net Position

As of December 31, 2022, with Comparative Totals as of December 31, 2021 (Dollars in Thousands)

	Pension Plan & Non-OPEB	Postemployment Medical Benefits	Total 2022	Total 2021
ASSETS				
Cash	\$ 6,915	\$ -	\$ 6,915	\$ 1,754
Securities Lending Cash Collateral	133,699	-	133,699	127,313
Receivables				
Contributions	23,162	-	23,162	22,027
Investment Receivables	21,208	-	21,208	19,624
Unsettled Trades - Investments Sold	3,240	-	3,240	7,653
Futures Contracts	40	-	40	161
Foreign Exchange Contracts	2,477	-	2,477	0
Other Receivables	227	-	227	350
Total Receivables	50,354	-	50,354	49,815
Prepaid Expenses	805	-	805	803
Total Current Assets	191,773	-	191,773	179,685
Investments at Fair Value				
Short-Term Investments	220,268	-	220,268	263,950
Domestic Equity	512,795	-	512,795	679,810
Domestic Equity Commingled Funds	2,013,410	-	2,013,410	2,645,585
International Equity	1,103,928	-	1,103,928	1,417,146
International Equity Commingled Funds	1,379,259	-	1,379,259	1,618,474
Domestic Fixed Income	1,327,238	-	1,327,238	1,714,638
International Fixed Income	84,556	-	84,556	82,608
International Fixed Income Commingled Funds	75,541	-	75,541	85,023
Real Estate - Separate Properties	55,578	-	55,578	72,113
Real Estate - Commingled Funds	780,660	-	780,660	641,674
Real Assets	580,241	-	580,241	749,497
Absolute Return	851,556	-	851,556	764,772
Private Equity	1,116,100	-	1,116,100	938,688
Private Credit	177,990	-	177,990	158,511
Total Investments	10,279,120	-	10,279,120	11,832,489
Non-OPEB Assets	54,901	-	54,901	51,921
Due from Pension Plan	(1,177,588)	1,122,687	(54,901)	(51,921)
Capital Assets at Cost (Net of Accumulated Depreciation and Amortization)	7,584	-	7,584	6,185
Total Assets	9,355,790	1,122,687	10,478,477	12,018,359
LIABILITIES				
Securities Lending Liability	133,699	-	133,699	127,313
Unsettled Trades - Investments Purchased	22,508	-	22,508	25,746
Futures Contracts	1,041	-	1,041	589
Foreign Exchange Contracts	0	-	0	913
Investment-Related Payables	12,107	-	12,107	13,516
Accrued Administration Expenses	2,933	-	2,933	2,624
Members Benefits & Refunds Payable	7,252	-	7,252	6,379
Retirement Payroll Deductions Payable	371	-	371	314
Current Lease Liability	51	-	51	48
Long-term Lease Liability	3	-	3	54
Total Liabilities	179,965	-	179,965	177,496
NET POSITION - Held in Trust for Benefits	\$ 9,175,825	\$ 1,122,687	\$ 10,298,512	\$ 11,840,863

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, 2022, with Comparative Totals for the Year Ended December 31, 2021 (Dollars in Thousands)

	Pension Plan & Non-OPEB	Postemployment Medical Benefits	Total 2022	Total 2021
ADDITIONS				
Contributions				
Member	\$ 120,673	\$ -	\$ 120,673	\$ 111,091
Employer	234,170	47,477	281,647	1,116,576
Total Contributions	354,843	47,477	402,320	1,227,667
Investment Income				
From Investment Activities:				
Net Appreciation (Depreciation) in Fair Value of Investments	(1,407,721)	-	(1,407,721)	1,492,161
Dividends, Interest, & Other Investment Income	159,534	-	159,534	188,075
Total Income (Loss) from Investment Activities	(1,248,187)	-	(1,248,187)	1,680,236
Total Investment Expenses	(42,148)	-	(42,148)	(79,725)
Net Income (Loss) from Investment Activities	(1,290,335)	-	(1,290,335)	1,600,511
From Securities Lending Activities:				
Securities Lending Income	3,070	-	3,070	914
Securities Lending Expenses				
Borrower Rebates	(2,294)	-	(2,294)	(24)
Management Fees	(155)	-	(155)	(178)
Total Securities Lending Activity Expenses	(2,449)	-	(2,449)	(202)
Net Income from Securities Lending Activities	621	-	621	712
Earnings Allocated to Non-OPEB	4,164	-	4,164	11,433
Earnings Allocated	(90,799)	86,635	(4,164)	(11,433)
Total Net Investment Income (Loss)	(1,376,349)	86,635	(1,289,714)	1,601,223
Miscellaneous Income				
Miscellaneous Income	117	-	117	969
Transfer to Employers' Advance Reserve from SRBR for Employer Contributions to 401(h) Account	47,477	-	47,477	46,772
Transfer to Employers' Advance Reserve from SRBR for Implicit Subsidy	5,594	-	5,594	7,484
Transfer from Employers' Advance Reserve to SRBR for OPEB Related Administrative Expense	-	1,657	1,657	1,537
Total Additions	\$ (968,318)	\$ 135,769	\$ (832,549)	\$ 2,885,652

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, 2022, with Comparative Totals for the Year Ended December 31, 2021 (Dollars in Thousands)

	Pension Plan & Non-OPEB	Postemployment Medical Benefits	Total 2022	Total 2021
DEDUCTIONS				
Benefits				
Service Retirement and Disability Benefits	\$ 573,320	\$ -	\$ 573,320	\$ 542,022
Death Benefits	3,120	-	3,120	3,414
Burial Benefits - Non-OPEB	241	-	241	257
Supplemental Cost of Living Allowance - Non-OPEB	943	-	943	932
Post Employment Medical Benefits	-	46,711	46,711	45,917
Total Benefit Payments	577,624	46,711	624,335	592,542
Member Refunds	13,713	-	13,713	9,644
Administration				
Administrative Expenses	12,669	1,657	14,326	13,731
Legal Expenses	839	-	839	855
Technology Expenses	927	-	927	904
Actuarial Expenses	382	-	382	459
Business Continuity Expenses	552	-	552	628
Total Administration	15,369	1,657	17,026	16,577
Transfer from SRBR to Employers' Advance Reserve for Employer Contributions to 401(h) Account	-	47,477	47,477	46,772
Transfer from SRBR to Employers' Advance Reserve for Implicit Subsidy	-	5,594	5,594	7,484
Transfer to SRBR from Employers' Advance Reserve for OPEB Related Administrative Expense	1,657	-	1,657	1,537
Total Deductions	608,363	101,439	709,802	674,556
CHANGE IN NET POSITION	(1,576,681)	34,330	(1,542,351)	2,211,096
NET POSITION - JANUARY 1	10,752,506	1,088,357	11,840,863	9,626,767
NET POSITION - DECEMBER 31	\$ 9,175,825	\$ 1,122,687	\$10,298,512	\$ 11,840,863

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 are 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

GASB Statement No. 93, *Replacement of Interbank Offered Rates*, was issued in March 2020. The objective of this Statement is to address the accounting and financial reporting implications that result from replacement of the IBOR (Inter Bank Offered Rate). The global reference to LIBOR (the London Inter Bank Offered Rate) will cease at the end of 2021. Statement No. 93, removes LIBOR as an appropriate benchmark interest rate and identifies a Secured Overnight Financing Rate and the Effective Federal Funds Rate as appropriate benchmark interest rates. The Statement also provides exceptions for hedge accounting termination provisions of Statement No. 53 and lease modification guidance in Statement No. 87, which will result from replacement of the reference rate. The provisions of Statement No. 93, are effective for reporting periods beginning after June 15, 2021. This Statement did not have an impact on ACERA.

GASB Statement No. 96, *Subscription-Based Information Technology Arrangements*, was issued in May 2020. This Statement provides guidance on accounting and financial reporting for subscription-based information technology arrangements (SBITAs). The guidance

requires the recognition of a right-to-use subscription asset and a corresponding subscription liability for contracts that convey control of the right-to-use another party's information technology software alone or in conjunction with tangible capital assets for a specified time period in an exchange or exchange-like transaction. The requirements of this statement are similar to those of Statement No. 87, *Leases*. The provisions of this Statement are effective with fiscal years beginning after June 15, 2022. ACERA will implement the provisions of this Statement for the fiscal year ending December 31, 2023.

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 benchmark 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, effective upon issuance. The requirements related to leases and SBITAs are effective for fiscal years beginning after June 15, 2022, and all reporting periods thereafter. Except for the requirements related to the use

of LIBOR, ACERA will implement the applicable provision of this Statement for the fiscal year ending December 31, 2023.

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.

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., PEPPRA 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 adjustment, 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, deferred firefighters, 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, 2022

Members, Survivors, and Beneficiaries Now Receiving Benefits	
Service Retirement	8,463
Disability Retirement	1,003
Beneficiaries and Survivors	1,298
Subtotal	10,764
Active Members	
Active Vested Members	7,661
Active Non-vested Members	3,629
Subtotal	11,290
Deferred Members	3,439
Total Membership	25,493

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 PEPR, 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 22](#) 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 2022 was 4.24% and was rounded to 4.00%, 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 1.00% and Tiers 2 and 4 members will bank 2.00% in 2022, as the 2022 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 29](#) 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 24](#) explains semi-annual interest crediting. The employer-paid contribution offsets may or may not be refundable. Pursuant to PEPRRA 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 2022). 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 2022

Tier 1: (entry date prior to July 1, 1983)	
General	8.00% - 16.63%
Safety 3% @ 50	14.84% - 22.62%
Tier 2: (entry date July 1, 1983, and before January 1, 2013)	
General	5.80% - 12.16%
Safety 3% @ 50	14.32% - 21.31%
Tier 2: (entry date October 17, 2010, and before January 1, 2013)	
Safety 2% @ 50	10.96% - 17.72%
Safety 3% @ 55 (with less than 5 years of vesting service)	16.24% - 23.18%
Safety 3% @ 55 (with 5 or more years of vesting service)	14.24% - 21.18%
Tier 3: (LARPD only - entry date prior to January 1, 2013)	
General	10.02% - 18.88%
Tier 4: (entry date January 1, 2013 or later)	
General	9.23%
Safety	17.01%

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 \$62.0 million in the year ended December 31, 2022.

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 Employer Advance Reserve and COLA Reserve accounts in proportion with the applicable Basic and COLA contribution rate credit percentages. For the year ended December 31, 2022, the amortized balances were \$84.4 billion and \$1.0 billion 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, 2022, 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 27](#) 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, 2022, the employers funded \$47.5 million of 401(h) contributions, including \$45.8 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, 2022, \$0.9 million of Supplemental COLA and \$0.3 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 Employer Advance Reserve and the COLA Reserve accounts in proportion to the rate credit allocation or breakdown between the Basic and COLA contributions. From September 2021 through August 2022, the UAAL rate credit applied to the County safety membership was 42.85% and the rate credit for LARPD's general membership was 28.08%. Effective September 2022, the UAAL rate credit applied to the County safety membership is 41.89% and the rate credit for LARPD's general membership is 29.19%.

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 2022

ACERA had \$1.3 billion losses from investment activities net of administrative expenses for the year ended December 31, 2022. The Contingency Reserve was adjusted to 1% of total assets at December 31, 2022 and subsequently reduced to \$0.0 or 0% of total assets to fund the interest crediting shortfall for the six month interest crediting period as of December 31, 2022.

The Market Stabilization Reserve account decreased by \$1.9 billion during 2022 as a result of applying the actuarial five-year smoothing process and the actuarial value corridor limits. The advance UAAL contribution reserve account received interest crediting of approximately \$31.5 million and all other reserve accounts (excluding the contingency and market stabilization reserves) received interest crediting of approximately \$709.2 million.

Reserves

As of December 31, 2022 (Dollars in Thousands)

	Pension and Non-OPEB	Postemployment Medical Benefits	Total
Member Reserve	\$ 1,822,516	\$ -	\$ 1,822,516
Employers' Advance Reserve	1,643,115	-	1,643,115
Retired Member Reserve	5,688,242	-	5,688,242
SRBR	54,901	1,113,708	1,168,609
401(h) Account	-	8,979	8,979
Subtotal of All Other Reserves	9,208,774	1,122,687	10,331,461
County Safety Membership - Adv. UAAL Reserve	748,929	-	748,929
LARPD General Membership - Adv. UAAL Reserve	12,236	-	12,236
Subtotal of Advance UAAL Contribution Reserve	761,165	-	761,165
Contingency Reserve	-	-	-
Market Stabilization Reserve Account	(794,114)	-	(794,114)
Total Reserves	\$ 9,175,825	\$ 1,122,687	\$ 10,298,512

5. Net Pension Liability

The components of the Net Pension Liability were as follows:

Net Pension Liability

(Dollars in Thousands)

	December 31, 2022	December 31, 2021
Total Pension Liability	\$ 11,489,051	\$ 11,009,509
Plan's Fiduciary Net Position ¹	9,257,791	10,217,222
Net Pension Liability	\$ 2,231,260	\$ 792,287
Plan's Fiduciary Net Position as a Percentage of the Total Pension Liability	80.58%	92.80%

¹ 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). For 2021, the Plan's Fiduciary Net Position amount shown (\$10,217,222) includes the net fair value of assets (\$11,840,863) less OPEB-related SRBR assets (\$1,623,641). The OPEB-related SRBR assets include \$1,073,475 in the SRBR-OPEB reserve (after reducing the reserve by the \$5,653 SRBR implicit subsidy transfer), and \$9,229 in the 401(h) reserve, plus a proportionate share of one half of the deferred market gains (after adjustment to replenish the balance in the Contingency Reserve, if any) commensurate with the size of the OPEB to total SRBR and 401(h) reserve to valuation and 401(h) reserves (\$540,937).

The Net Pension Liability (NPL) for the plan was measured as of December 31, 2022 and 2021. 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, 2021 and 2020, 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, 2022 and December 31, 2021, TPLs are 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, 2022 and December 31, 2021 funding valuations for ACERA.

Key Assumptions Used in the Measurement

Valuation Date	December 31, 2022	December 31, 2021
Inflation	2.75%	2.75%
Salary Increases	General: 8.35% to 3.65% and Safety: 11.25% to 4.05%, 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, 2016 through November 30, 2019	December 1, 2016 through November 30, 2019

Long-Term Expected Rate of Return

The long-term expected rate of return on pension plan investments¹ was determined in 2020 using a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage, adding expected

inflation and subtracting expected investment expenses and a risk margin. The target allocation (approved by the Board) and projected arithmetic real rates of return for each major asset class, after deducting inflation but before investment expenses, are shown in the following table. This information was used in the derivation of the long-term expected investment rate of return assumption for the December 31, 2022 actuarial valuation. This information will be subject to change every three years based on the results of an actuarial experience study.

Target Asset Allocation and Projected Arithmetic Real Rate of Return

Asset Class	Target Allocation	Long-Term Expected Arithmetic Real Rate of Return
Domestic Large Cap Equity	22.40%	5.43%
Domestic Small Cap Equity	2.50%	6.21%
International Developed Equity	17.00%	6.67%
International Small Cap Equity	3.00%	7.36%
Emerging Markets Equity	5.00%	8.58%
Core Plus Fixed Income	11.50%	1.10%
High Yield Bonds	1.60%	2.91%
Global Fixed Income	3.00%	-0.63%
Private Equity	10.50%	10.00%
Core Real Estate	8.00%	4.58%
Commodities	0.75%	3.46%
Infrastructure	1.75%	7.80%
Private Credit	4.00%	8.50%
Absolute Return	9.00%	3.70%
Total	100.00%	5.56%

Discount Rate

The discount rate used to measure the Total Pension

Liability (TPL) was 7.00% as of December 31, 2022 and December 31, 2021. Article 5.5 of the Statute, which

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.)

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 test¹. It is estimated that the additional outflow would average approximately 0.65% 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 rates² 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, 2022 and December 31, 2021.

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

The following presents the Net Pension Liability as of December 31, 2022, 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, 2022 (Dollars in Thousands)

	1% Decrease	Current Discount Rate	1% Increase
Net Pension Liability	\$ 3,710,532	\$ 2,231,260	\$ 1,012,686

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, 2022, the annual money-weighted rate of return on the total investments (pension plan and OPEB) was -11.01%. For trend information, refer to the Schedule of Investment Returns under the RSI section on [page 52](#).

6. Actuarial Valuation

ACERA retains an independent actuarial firm to conduct actuarial valuations of the pension plan, post-employment 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

¹ The purpose of the GASB crossover test is to determine if the full expected return (or 700% 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 700% 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.

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 24](#) 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	12/31/2021
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)	11 years
Amortization of New UAAL (On or after January 1, 2012)	<p>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.</p> <p>Plan amendments are amortized over separate decreasing 15-year periods.</p> <p>Early retirement incentive programs (ERIPs) are amortized over separate decreasing 5-year periods.</p> <p>Assumption and method changes are amortized over separate decreasing 20-year periods.</p> <p>Experience gains/losses are amortized over separate decreasing 20-year periods.</p>
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	<p>Interest Rate: 7.00%</p> <p>Inflation Rate: 2.75%</p> <p>Across-the-Board Salary Increases: 0.50%</p> <p>Salary Increases: General 8.35% - 3.65% and Safety 11.25% - 4.05%</p> <p>Demographic: refer to page 112</p>
Postemployment Benefit Increases	<p>2.75% of Tier 1 and Tier 3 retirement income</p> <p>2.00% of Tier 2 and Tier 4 retirement income</p>

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 90.8% funded 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 2046.

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	12/31/2021
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	Graded down from 7.50% by 0.25% each year until it reaches 4.50%
Medicare Advantage Plan	Graded down from 6.50% by 0.25% each year until it reaches 4.50%
Dental¹	0.00% for the first year and 4.00% each year thereafter
Vision²	0.00% for the first three 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 3.125% from calendar year 2023 to 2024, graded down to the ultimate rate of 2.25% over 7 years..

¹ Dental premiums fixed at 2021 levels for the first year to reflect a three-year rate guarantee.

² Vision premiums fixed at 2021 levels for the first three 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 2043.

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	12/31/2021
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, 2022
Retired members receiving medical benefits
Retired members receiving dental and vision benefits
Vested terminated members entitled to, but not receiving benefits
Active members

Benefits Provided

The County negotiates the 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 2021 was \$5.6 million. SRBR assets in this amount were treated as a pension contribution in 2022 upon the Board of Retirement’s approval to compensate the County for the implicit subsidy. The estimated implicit subsidy amount for 2022 is \$8.0 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 2022 maximum monthly allowance for group plans and under age-65 members enrolled in individual insurance exchange was \$596.73 and \$457.13 for members enrolled in the individual plans

through the Medicare exchange. The maximum monthly combined dental and vision subsidy was \$48.12 in 2022.

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, 2022	
Number of Subsidized Retirees	
Medical	5,247
Medicare Exchange	1,777
Medicare Part B	5,937
Dental and Vision	8,377

Contributions and Reserves

Net OPEB Liability

The components of the Net OPEB Liability (Asset) were as follows:
(Dollars in Thousands)

	December 31, 2022	December 31, 2021
Total OPEB Liability	\$ 1,232,017	\$ 1,203,078
Plan's Fiduciary Net Position ¹	1,040,721	1,623,641
Net OPEB Liability (Asset)	\$ 191,296	\$ (420,563)
Plan's Fiduciary Net Position as a Percentage of the Total OPEB Liability	84.47%	134.96%

¹ 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). For 2021, the Plan's Fiduciary Net Position shown (\$1,623,641) includes the OPEB-related SRBR reserve of \$1,073,475 (after reducing the reserve by the SRBR implicit subsidy transfer of \$5,653) and 401(h) reserve (\$9,229), plus the proportionate share of one half of the net deferred investment gain that is commensurate with the size of the OPEB SRBR reserve to total SRBR and 401(h) reserve to valuation and 401(h) reserve (\$540,937).

The Net OPEB Liability (Asset) was measured as of December 31, 2022 and 2021. 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,

There are no legal or contractual contribution requirements for the OPEB plan. Please refer to Note 3 starting on [page 22](#) for details.

Reserve requirements of the SRBR are disclosed under Note 4 starting on [page 24](#).

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 52](#) of the RSI.

2021 and 2020, respectively.

Plan Provisions

The plan provisions used in the measurement of the Net OPEB Liability (Asset) as of December 31, 2022 and

2021 are the same as those used for the SRBR sufficiency valuation as of December 31, 2021 and 2020, respectively.

Actuarial Assumptions

The actuarial assumptions used for the December 31, 2022 and December 31, 2021 valuations 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 the health care trend assumptions recommended for the sufficiency study for the SRBR as of December 31, 2022. The assumptions used in the December 31, 2022 and December 31, 2021 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, 2022	December 31, 2021
Investment Rate of Return	7.00% , net of OPEB investment expense, including inflation	7.00% , net of OPEB investment expense, including inflation
Inflation	2.75%	2.75%
Health Care Premium Trend Rates	Used to project health care cost after calendar year 2023:	Used to project health care cost after calendar year 2022:
Non-Medicare medical plan	Graded from 7.50% in 2023 to ultimate 4.50% over 12 years	Graded from 7.50% in 2022 to ultimate 4.50% over 12 years
Medicare medical plan	Graded from 6.50% in 2023 to ultimate 4.50% over 7 years	Graded from 6.50% in 2022 to ultimate 4.50% over 8 years
Dental	4.00%	0.00% for the first year to reflect a three-year rate guarantee (premiums fixed at 2021 level for 2022 and 2023) and 4.00% thereafter.
Vision	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.	0.00% for the first three 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-B¹	4.50%	4.50%
Other Assumption Based on Actuarial Experience Study	December 1, 2016 through November 30, 2019	December 1, 2016 through November 30, 2019

¹ The actual calendar year 2022 premium decrease of 3.06% reflecting the standard 2023 calendar year premium of \$164.90 per month, consistent with actuary's Medicare Part B memo dated October 27, 2022 was reflected in the GASB 74 valuation with December 31, 2022 measurement date. The actual calendar year 2021 premium increase of 14.55% reflecting the standard 2022 calendar year premium of \$170.10 per month, consistent with actuary's Medicare Part B memo dated November 19, 2021 was reflected in the GASB 74 valuation with December 31, 2021 measurement date.

Long-Term Expected Rate of Return

The long-term expected rate of return on OPEB plan investments¹ was determined in 2020 using a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by

the target asset allocation percentage, adding expected inflation and subtracting expected investment expenses and a risk margin. The target allocation (approved by the Board) and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before investment expenses are shown in the target asset allocation and projected arithmetic real rate of return

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.)

table. This information was used in the derivation of the long-term expected investment rate of return assumption for the December 31, 2022 actuarial valuation. This information will be subject to change every three years

Discount Rate

The discount rate used to measure the Total OPEB Liability was 7.00% as of December 31, 2022 and December 31, 2021. 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

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 28](#) Note 05.

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, 2022 and December 31, 2021.

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

The following presents the Net OPEB Liability as of December 31, 2022, 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, 2022 (Dollars in Thousands)

	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
Net OPEB Liability	\$ 355,667	\$ 191,296	\$ 55,443

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, 2022, 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, 2022 (Dollars in Thousands)

	1% Decrease ¹	Current Trend Rates ¹	1% Increase ¹
Net OPEB Liability	\$ 29,595	\$ 191,296	\$ 392,245

¹ Current trend rates: 7.50% graded down to 4.50% over 12 years for Non-Medicare medical plan costs; 6.25% graded down to 4.50% over 7 years for Medicare medical plan costs, 4.00% for all years and after two years for Dental and Vision costs, respectively; and 4.50% for all years for Medicare Part B costs. The first two years of trend for vision were 0.00% to reflect five-year rate guarantee (premiums fixed at 2021 levels for 2022, 2023, 2024 and 2025).

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, 2022, fourteen 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, five investment managers were used for absolute return, five investment managers were used for private credit and nine 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, 2022 (Dollars in Thousands)

Investments by Fair Value Level	Total	Fair Value Measurements Using		
		Quoted Prices in Active Markets for Identical Assets	Significant Other Observable Inputs	Significant Unobservable Inputs
		Level 1	Level 2	Level 3
Cash Equivalents				
Government Issues	\$ 26,668	\$ 26,668	\$ -	\$ -
STIF-Type Instruments	170,032	-	170,032	-
Total Cash Equivalents	196,700	26,668	170,032	-
Fixed Income Securities				
Auto Loan Receivable	11,374	-	11,374	-
CMO	112,263	-	112,263	-
Convertible Bonds	15,109	-	15,109	-
Corporate Bonds	570,481	-	570,481	-
Credit Card Receivable	336	-	336	-
FHLMC	74,342	-	74,342	-
FNMA	166,589	-	166,589	-
GNMA I	637	-	637	-
GNMA II	40,561	-	40,561	-
Government Issues	380,279	220,188	160,091	-
Municipals	2,382	-	2,382	-
Mutual Funds	75,541	-	75,541	-
Other Asset Backed	37,370	(200)	37,570	-
Total Fixed Income Securities	1,487,264	219,988	1,267,276	-
Equity Securities				
Non-U.S. Equity	1,103,928	1,103,928	-	-
Pooled Investments	3,392,669	2,013,410	1,379,259	-
U.S. Equity	512,795	511,553	1,242	-
Total Equity Securities	5,009,392	3,628,891	1,380,501	-
Real Assets				
Mutual Funds	362,148	-	362,148	-
Total Real Assets	362,148	-	362,148	-
Real Estate				
Properties	55,578	-	-	55,578
Total Real Estate	55,578	-	-	55,578
Collateral from Securities Lending	133,699	-	133,699	-
Total Investments by Fair Value Level	7,244,781	\$ 3,875,547	\$ 3,313,656	\$ 55,578
Investments Measured at Net Asset Value (NAV)				
Real Assets	218,093			
Private Equity	1,116,100			
Private Credit	177,990			
Absolute Return	851,556			
Real Estate	780,660			
Total Investments Measured at NAV	3,144,399			
Total Investments	\$ 10,389,180	\$ 3,875,547	\$ 3,313,656	\$ 55,578
Derivative Instruments				
Futures	\$ (1,001)	\$ (1,001)	\$ -	\$ -
Forwards and Spot Contracts	2,476	2,476	-	-
Total Derivative Instruments	\$ 1,475	\$ 1,475	\$ -	\$ -

Investments Measured at the NAV

As of December 31, 2022 (Dollars in Thousands)

	Fair Value	Unfunded Commitments	Redemption Frequency (If Currently Eligible)	Redemption Notice Period
Real Assets ¹	\$ 218,093	\$ 80,394	Not Eligible	N/A
Private Equity ²	1,116,100	366,673	Not Eligible	N/A
Absolute Return ³	851,556	7,241	Not Eligible, or Between Daily and Quarterly	N/A or Between 1 Day and 90 Days
Real Estate ⁴	780,660	128,143	Not Eligible or Quarterly	N/A or up to 90 Days
Private Credit ⁵	177,990	120,841	Not Eligible	N/A
Total Investments Measured at NAV	\$ 3,144,399	\$ 703,292		

¹ *Real Assets* – The Real Assets portfolio consists of 11 funds which include 10 limited partnerships and 1 separately managed account. The 10 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 publically 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 64 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 4 funds that include a variety of commingled, liquid and illiquid idiosyncratic strategies and two fund of hedge funds account. Three of the funds are illiquid limited partnerships, which are valued at net asset value on a quarterly basis. Due to contractual limitations, these vehicles are not eligible for redemption for up to 6 years. The fourth fund 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 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, 2022, 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, 2022 (Dollars in Thousands)

Derivative Instruments Type	Classification	Notional Value/Shares	Fair Value	Changes in Fair Value ¹
Fixed Income Futures Long	Futures	\$ 57,200	\$ -	\$ (13,637)
Fixed Income Futures Short	Futures	-	-	2,782
Foreign Currency Futures Long	Futures	4,400	-	(310)
Currency Forward Contracts	Long Term Instrument ²	123,699	2,477	(12,132)
Index Futures Long	Futures	34	-	(15,071)
Warrants	Common Stock	15	12	(12)
Total			\$ 2,489	\$ (38,380)

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, 2022, 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, 2022, on the amount of the loans that the securities lending agent made on its behalf. In the event the borrower failed to return the loaned securities, the securities lending agent indemnified ACERA by agreeing to purchase replacement securities. If the collateral was inadequate to replace the securities lent, the securities lending agent supplemented the amount of cash collateral. If the borrower failed 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, 2022, resulting from a default of the borrowers or the securities lending agent.

For the year ended December 31, 2022, 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, 2022, the Quality D Short-Term investment fund liquidity pool had an average duration of 3.29 days and an average weighted final maturity of 96.01 days for U.S. dollars collateral. For the year ended December 31, 2022, 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, 2022, ACERA had securities on loan with a total fair value of \$171.76 million; however, the fair value of collateral held against the loaned securities was \$176.77 million which is more than the total fair value of loaned securities by \$5.01 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, 2022, cash held with a financial institution in a pooled money market fund amounted to \$8.39 million, of which \$0.50 million was insured and \$7.89 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, 2022, 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, 2022, net collateral for derivative instruments was \$5.94 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, 2022, 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 43](#) discloses credit ratings of ACERA's debt investments by type and for each external investment pool as of December 31, 2022.

Credit Risk Analysis

As of December 31, 2022 (Dollars in Thousands)

Debt Investments By Type	Adjusted Moody's Credit Rating ¹									
	Total	Aaa	Aa	A	Baa	Ba	B	Caa	Ca and Below	Not Rated
Collateralized										
Mortgage Obligations	\$ 112,263	\$ 78,978	\$ 407	\$ 1,027	\$ 766	\$ 2,096	\$ 1,019	\$ 570	\$ 46	\$ 27,354
Convertible Bonds	15,109	-	-	-	1,213	-	-	3,851	-	10,045
Corporate Bonds	570,481	-	1,715	53,229	404,336	73,170	27,551	5,566	-	4,914
Federal Home Loan Mortgage Corp. ²	74,342	-	-	-	-	-	-	-	-	74,342
Federal National Mortgage Assn. ²	166,589	-	-	-	-	-	-	-	-	166,589
Government National Mortgage Assn. I, II ²	41,198	-	-	-	-	-	-	-	-	41,198
Government Issues ³	380,281	310,494	3,767	10,142	9,287	1,776	-	129	-	44,686
Municipal	2,382	62	197	2,123	-	-	-	-	-	-
Other Asset Backed Securities	49,279	40,428	228	303	2,044	756	-	405	2,303	2,812
Subtotal Debt Investments	1,411,924	429,962	6,314	66,824	417,646	77,798	28,570	10,521	2,349	371,940
Securities Lending Cash Collateral Fund										
Liquidity Pool ⁴	133,728	-	-	-	-	-	-	-	-	133,728
Master Custodian Short-Term Investment Fund ⁴	170,032	-	-	-	-	-	-	-	-	170,032
Subtotal External Investment Pools	303,760	-	-	-	-	-	-	-	-	303,760
Total	\$1,715,684	\$429,962	\$ 6,314	\$ 66,824	\$ 417,646	\$ 77,798	\$ 28,570	\$10,521	\$ 2,349	\$675,700

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 42](#) 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, 2022. 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, 2022 (Dollars in Thousands)

Adjusted Moody's Credit Rating ¹	Fair Value	%
A	\$ 3,516	100%
Subtotal Derivative in Asset Position	3,516	100%
Derivative in Liability Position	(1,040)	
Total Derivative Instruments in Asset/(Liability) Position	\$ 2,476	

¹ See footnote 1 on [page 43](#).

As of December 31, 2022, the \$3.52 million maximum exposure of derivative instruments credit risk was reduced by (\$1.04) million of liabilities included in netting arrangements, resulting in a net exposure to credit risk of \$2.48 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 (with portfolio style) are as follows:

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 14 days as of December 31, 2022.

Interest Rate Risk Analysis – Duration

As of December 31, 2022 (Dollars in Thousands)

Debt Investments by Type	Fair Value	Duration in Years
Collateralized Mortgage Obligations	\$ 112,263	3.5
Convertible Bonds	15,109	0.5
Corporate Bonds	570,481	5.4
Federal Home Loan Mortgage Corp.	74,342	5.1
Federal National Mortgage Assn.	166,589	5.3
Government National Mortgage Assn. I, II	41,198	4.9
Government Issues	380,279	8.8
Municipal Bonds	2,382	4.8
Other Asset Backed Securities	49,280	3.0
Total of Debt Investments	\$ 1,411,923	
External Investment Pools of Debt Securities	Fair Value	Duration
Securities Lending Cash Collateral Fund		
Liquidity Pool	\$ 133,728	3 days
Master Custodian Short-Term Investment Fund	170,032	-
Total External Investment Pools	\$ 303,760	

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

As of December 31, 2022 (Dollars in Thousands)

Investment Type	Investment Description	Interest Rates	Fair Value
Corporate Bonds	Various debt related Securities	4.50% to 6.50%	\$ 4,013
Government Issues	Various debt related Securities	0.75% to 8.00%	931

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 47](#) 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 47](#). 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, 2022 (Dollars in Thousands)

Trade Currency Name	Investment Type											Net Exposure	
	Collat- eralized Mortgage Obligations	Common Stock	Cor- porate Bonds	Depository Receipts	Foreign Currency	Govern- ment Issues	Preferred Stock	Currency Swap	Real Estate Inv. Trst	Limited Partner- ship/Mutual Funds	Warrants		
Argentine Peso	\$ -	\$ -	\$ -	\$ -	\$ 42	\$ 128	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 170
Australian Dollar	-	9,230	-	-	6,796	3,767	-	10	-	7,947	-	-	27,750
Brazilian Real	-	11,446	-	-	22	2,626	1,646	(30)	-	-	-	-	15,710
Canadian Dollar	-	20,576	-	-	89	-	-	-	481	-	-	-	21,146
Chilean Peso	-	-	-	-	-	-	-	498	-	-	-	-	498
Czech Koruna	-	49	-	-	4	-	-	-	-	-	-	-	53
Danish Krone	-	39,695	-	-	491	-	-	-	-	-	-	-	40,186
Euro Currency	288	309,782	412	325	1,239	20,176	1,125	1,231	-	43,253	-	-	377,831
Hong Kong Dollar	-	75,498	-	-	26	-	-	-	-	-	-	-	75,524
Hungarian Forint	-	210	-	-	-	-	-	-	-	-	-	-	210
Indonesian Rupiah	-	3,410	-	-	-	-	-	-	-	-	-	-	3,410
Japanese Yen	-	234,879	-	-	71	-	-	1,238	134	-	-	-	236,322
Malaysian Ringgit	-	282	-	-	11	3,136	-	2	-	-	-	-	3,431
Mexican Peso	-	3,158	-	-	-	9,287	-	(304)	-	-	-	-	12,141
New Israeli Sheqel	-	277	-	-	1	-	-	-	-	-	-	-	278
New Taiwan Dollar	-	14,242	-	-	3	-	-	-	-	-	-	-	14,245
New Zealand Dollar	-	736	-	-	18	-	-	-	-	-	-	-	754
Norwegian Krone	-	6,762	-	-	92	-	-	(108)	-	-	-	-	6,746
Philippine Peso	-	913	-	-	1	-	-	-	-	-	-	-	914
Polish Zloty	-	161	-	-	-	7,005	-	(278)	-	-	-	-	6,888
Pound Sterling	-	148,637	-	-	508	-	-	-	487	-	-	-	149,632
Russian Ruble	-	2,807	-	-	-	-	-	-	-	-	-	-	2,807
Singapore Dollar	-	28,398	-	-	61	-	-	-	-	-	-	-	28,459
South African Rand	-	6,099	-	-	67	1,776	-	(30)	-	-	-	-	7,912
South Korean Won	-	5,762	-	-	70	12,949	-	(263)	-	-	-	-	18,518
Swedish Krona	-	32,522	-	-	18	-	-	509	-	-	-	-	33,049
Swiss Franc	-	46,362	-	-	282	-	-	-	-	-	12	-	46,656
Thailand Baht	-	1,673	-	-	-	-	-	-	-	-	-	-	1,673
Turkish Lira	-	78	-	-	1	-	-	-	-	-	-	-	79
UAE Dirham	-	770	-	-	-	-	-	-	-	-	-	-	770
Yuan Renminbi	-	4,520	-	-	-	-	-	-	-	-	-	-	4,520
Grand Total	\$ 288	\$1,008,934	\$ 412	\$ 325	\$ 9,913	\$60,850	\$ 2,771	\$2,475	\$ 1,102	\$51,200	\$ 12	\$1,138,282	

Real Estate

Real Estate Investment Income – Separate Properties

For the Year Ended December 31, 2022
(Dollars in Thousands)

Real Estate Investment Income	\$	3,919
Less Operating Expenses		(2,584)
Real Estate Net Income	\$	1,335

There is no outstanding real estate related debt associated with the separate properties as of December 31, 2022.

9. Capital Assets

ACERA's capital assets include equipment and furniture, right-to-use leased office equipment, 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, 2022 (Dollars in Thousands)

	January 1, 2022	Additions	Deletions / Transfers	December 31, 2022
CAPITAL ASSETS - DEPRECIABLE				
Equipment and Furniture	\$ 3,108	\$ -	\$ -	\$ 3,108
Right-to-Use Leased Office Equipment	213	-	-	213
Electronic Document Management System	4,172	-	-	4,172
Information Systems	10,484	-	-	10,484
Leasehold Improvements	2,585	-	-	2,585
Subtotal	20,562	-	-	20,562
CAPITAL ASSETS - NON DEPRECIABLE				
Construction-in-Progress	4,862	1,563	-	6,425
Total Capital Assets (Cost)	25,424	1,563	-	26,987
ACCUMULATED DEPRECIATION AND AMORTIZATION				
Equipment and Furniture	(3,062)	(15)	-	(3,077)
Right-to-Use Leased Office Equipment	(129)	(43)	-	(172)
Electronic Document Management System	(4,166)	(2)	-	(4,168)
Information Systems	(10,462)	(9)	-	(10,471)
Leasehold Improvements	(1,420)	(95)	-	(1,515)
Total Accumulated Depreciation and Amortization	(19,239)	(164)	-	(19,403)
CAPITAL ASSETS - NET OF ACCUMULATED DEPRECIATION AND AMORTIZATION	\$ 6,185	\$ 1,399	\$ -	\$ 7,584

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, 2018. The payments are due monthly in arrears. The monthly payment of \$6,254 included a lease portion of \$4,405 and a non-lease/ service portion of \$1,849 at the beginning of a

lease. The lessor increased the rental amount by 2.14% after year one of the lease term. ACERA estimated the same percentage increase over the lease term in the lease liability calculation. However, per the terms of the contract, the lessor can increase the rental payment by up to 10% annually over the term of the lease. ACERA estimated an annual interest rate of 12.05% 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 November 30, 2023.

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.

Future Lease Payment Maturity Schedule under GASB 87

As of December 31, 2022 (Dollars in Thousands)

Year	Principal	Interest	Total Payment
2023	\$ 51	\$ 3	\$ 54
2024*	2	-	2
2025*	1	-	1
2026	-	-	-
Total	\$ 54	\$ 3	\$ 57

* Interest amounts in 2024 and 2025 are not reported in the table as the rounded amounts are less than \$1,000.

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.

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 actual building operating expenses declined, in comparison to the projected building operating expenses for the year. As a result, ACERA experienced a surplus of \$9,701 for the year ended December 31, 2022.

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 \$2.7 million for 2022.

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 58](#).

Application of Statutory Limit on Administration Expense

For the Year Ended December 31, 2022 (Dollars in Thousands)

Total Accrued Actuarial Liability as of December 31, 2021	\$	12,256,685
Limit: Maximum Allowable fraction of Total Accrued Actuarial Liability (0.21%) times Total Accrued Actuarial Liability	\$	25,739
Portion of Administrative Expenses for the Fiscal Year subject to the Statutory Limit		14,326
Excess of Limit over Portion of Administration Expense Subject to Limit	\$	11,413
Portion of Administration Expense Subject to Limit as a Percentage of Accrued Actuarial Liability		0.12%

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, 2022
(Dollars in Thousands)

Reimbursed Cost of ACERA		
Staff Members	\$	15,267
Reimbursed Costs of County Services		565
State Mandated Benefit Replacement Program IRC 415(m)		835
County Personnel Services		77
Partial Salary/Benefits Reimbursement for Elected Board Members		345
Total	\$	17,089

13. Subsequent Events

Management has evaluated subsequent events through May 10, 2023, 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)

	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Total Pension Liability (TPL)										
Service Cost ¹	\$ 245,467	\$ 235,099	\$ 221,824	\$ 215,625	\$ 209,890	\$ 187,409	\$ 175,642	\$ 172,585	\$ 167,120	\$ 166,639
Interest	767,151	741,739	718,927	688,655	659,592	636,556	603,168	579,500	542,377	522,203
Changes of benefit terms	-	-	-	-	-	-	-	-	-	-
Differences between expected and actual experience	58,261	(50,360)	33,007	24,548	13,710	17,516	(68,176)	(31,965)	(85,379)	(61,362)
Changes of assumptions	-	-	236,513	-	-	316,728	150,677	-	431,863	-
Benefit payments, including refunds of member contributions	(591,337)	(556,269)	(530,763)	(504,185)	(471,943)	(445,288)	(422,223)	(401,298)	(378,689)	(359,938)
Net Change in Total Pension Liability	479,542	370,209	679,508	424,643	411,249	712,921	439,088	318,822	677,292	267,542
Total Pension Liability - Beginning	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	6,708,235
Total Pension Liability - Ending (a)	\$ 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
Plan's Fiduciary Net Position (FNP)										
Contributions - employer ²	\$ 281,647	\$ 1,116,576	\$ 309,753	\$ 298,527	\$ 269,684	\$ 247,064	\$ 241,729	\$ 224,607	\$ 213,255	\$ 191,180
Contributions - member	120,673	111,091	106,104	103,117	94,736	89,326	85,736	82,949	79,714	76,230
Net investment income	(755,045)	1,115,980	755,501	1,165,767	(216,308)	1,065,908	423,718	49,021	318,245	736,914
Benefit payments, including refunds of member contributions	(591,337)	(556,269)	(530,763)	(504,185)	(471,943)	(445,288)	(422,223)	(401,298)	(378,689)	(359,938)
Administrative expense	(15,369)	(15,040)	(14,810)	(15,274)	(15,246)	(14,571)	(14,618)	(14,262)	(13,855)	(13,634)
Other	-	-	-	-	-	-	-	-	-	-
Net Change in Plan's Fiduciary Net Position	(959,431)	1,772,338	625,785	1,047,952	(339,077)	942,439	314,342	(58,983)	218,670	630,752
Plan's Fiduciary Net Position³ - Beginning	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	5,063,004
Plan's Fiduciary Net Position³ - Ending (b)	\$ 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
Net Pension Liability (NPL) - Ending (a) - (b)	\$ 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	\$ 1,282,021
FNP as a Percentage of the TPL	80.58%	92.80%	79.37%	78.51%	71.01%	77.93%	73.33%	73.43%	77.26%	81.62%
Covered Payroll⁴	\$ 1,198,970	\$ 1,153,918	\$ 1,111,849	\$ 1,081,587	\$ 1,046,034	\$ 995,178	\$ 947,568	\$ 945,858⁵	\$ 886,925	\$ 853,350
NPL as a Percentage of Covered Payroll	186.10%	68.66%	197.37%	197.92%	264.24%	202.34%	236.73%	223.97%	196.26%	150.23%

1 The service cost is based on the previous year's valuation, meaning the December 31, 2022 measurement date values are based on the valuation as of December 31, 2021.

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 Employer 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 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 \$7981 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). For 2021, the Plan's Fiduciary Net Position amount shown (\$10,217,222) includes the net fair value of assets (\$11,840,863) less OPEB-related SRBR assets (\$1,623,641). The OPEB-related SRBR assets include \$1,073,475 in the SRBR-OPEB reserve (after reducing the reserve by the \$5,653 SRBR implicit subsidy transfer), and \$9,229 in the 401(h) reserve, plus a proportionate share of one half of the deferred market gains (after adjustment to replenish the balance in the Contingency Reserve, if any) commensurate with the size of the OPEB to total SRBR and 401(h) reserve to valuation and 401(h) reserves (\$540,937).

4 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.

5 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
2013	\$ 191,180	\$ 191,180	\$ -	\$ 853,350	\$ 22.40%
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%

- 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)

	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Annual Money-Weighted Rate of Return, net of Investment Expense	-11.01%	16.12%	11.70%	18.10%	-4.44%	19.02%	7.16%	-0.10%	4.27%	19.87%

Postemployment Medical Benefits

Schedule of Changes in Net OPEB Liability and Related Ratios

For the Years Ended December 31 (Dollars in Thousands)

	2022	2021	2020	2019	2018	2017
Total OPEB Liability¹						
Service Cost ²	\$ 33,756	\$ 33,440	\$ 31,511	\$ 27,678	\$ 31,577	\$ 26,991
Interest	84,971	84,144	79,142	73,843	73,427	69,879
Changes of benefit terms	-	-	-	-	-	-
Differences between expected and actual experience	(27,434)	(24,112)	(13,871)	(41,706)	(27,712)	(21,627)
Changes of assumptions	(15,643)	(36,048)	57,696	12,524	(11,430)	58,973
Benefit payments	(46,711)	(45,917)	(46,021)	(43,562)	(40,879)	(37,904)
Net Change in Total OPEB Liability	28,939	11,507	108,457	28,777	24,983	96,312
Total OPEB Liability - Beginning	1,203,078	1,191,571	1,083,114	1,054,337	1,029,354	933,042
Total OPEB Liability - Ending (a)	\$ 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
Contributions - member	N/A	N/A	N/A	N/A	N/A	N/A
Net investment income	\$ (534,552)	\$ 486,212	\$ 262,140	\$ 193,656	\$ (138,333)	\$ 243,189
Benefit payments	(46,711)	(45,917)	(46,021)	(43,562)	(40,879)	(37,904)
Administrative expense	(1,657)	(1,537)	(1,416)	(1,354)	(1,224)	(1,204)
Other	-	-	-	-	-	-
Net Change in Plan's Fiduciary Net Position	(582,920)	438,758	214,703	148,740	(180,436)	204,081
Plan Fiduciary Net Position⁴ - Beginning	1,623,641	1,184,883	970,180	821,440	1,001,876	797,795
Plan Fiduciary Net Position⁴ - Ending (b)	\$ 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)	\$ 191,296	\$ (420,563)	\$ 6,688	\$ 112,934	\$ 232,897	\$ 27,478
FNP as a Percentage of the Total OPEB Liability	84.47%	134.96%	99.44%	89.57%	77.91%	97.33%
Covered-Employee Payroll⁵	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

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, 2022 measurement date values are based on the valuation as of December 31, 2021.

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 Employer Advance Reserve to backfill the employer contributions that would have otherwise been made to the Retirement Plan.

⁴ 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). For 2021, the Plan's Fiduciary Net Position shown (\$1,623,641) includes the OPEB-related SRBR reserve of \$1,073,475 (after reducing the reserve by the SRBR implicit subsidy transfer of \$5,653) and 401(h) reserve (\$9,229), plus the proportionate share of one half of the net deferred investment gain that is commensurate with the size of the OPEB SRBR reserve to total SRBR and 401(h) reserve to valuation and 401(h) reserve (\$540,937).

⁵ 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
2013	N/A	N/A	\$ -	N/A	N/A
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

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 52](#) 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. The key assumptions used for rolling forward the TPL to December 31, 2022, are as follows:

Inflation	2.75%
Salary Increases	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

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

Actuarially determined contribution rates for the first six months of calendar year 2022 (or the second half of fiscal year 2021-2022) are calculated based on the December 31, 2020, valuation. Actuarially determined contribution rates for the last six months of calendar year 2022 (or the first half of fiscal year 2022-2023) are calculated based on the December 31, 2021, valuation.

Valuation Date	December 31, 2021	December 31, 2020
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	<p>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).</p> <p>On or after January 1, 2012, any new UAAL resulting from plan amendments are amortized over separate decreasing 15-year periods.</p> <p>Early retirement incentive programs (ERIPs) are amortized over separate decreasing 5-year periods.</p> <p>Assumption and method changes are amortized over separate decreasing 20-year periods.</p> <p>Experience gains/losses are also amortized over separate decreasing 20-year periods.</p> <p>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.</p>	<p>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 12 years remaining as of December 31, 2020).</p> <p>On or after January 1, 2012, any new UAAL resulting from plan amendments are amortized over separate decreasing 15-year periods.</p> <p>Early retirement incentive programs (ERIPs) are amortized over separate decreasing 5-year periods.</p> <p>Assumption and method changes are amortized over separate decreasing 20-year periods.</p> <p>Experience gains/losses are also amortized over separate decreasing 20-year periods.</p> <p>The County made voluntary County Safety contributions of \$800 million on June 29, 2021 to reduce their Safety UAAL and associated contribution rates. LARPD also made voluntary LARPD General contributions of \$12.6 million on June 29, 2021 to reduce their General UAAL and associated contribution rates. The contribution rate credits associated with these voluntary contributions, determined using bases in the December 31, 2020 valuation, are provided effective July 1, 2021. 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.</p>
Asset Valuation Method	<p>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.</p>	

Actuarial Assumptions:	December 31, 2021	December 31, 2020
Investment rate of return	7.00%, net of pension plan investment expense, including inflation	7.00%, net of pension plan investment expense, 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	General: 8.35% to 3.65% and Safety: 11.25% to 4.05%, vary by service, including inflation
Cost of living adjustments	2.75% of retirement income for General Tiers 1 and 3, and Safety Tier 1.	2.75% of retirement income for General Tiers 1 and 3, and Safety Tier 1.
	2.00% of retirement income for General Tiers 2 and 4, and Safety Tiers 2, 2C, 2D, and 4.	2.00% of retirement income for General Tiers 2 and 4, and Safety Tiers 2, 2C, 2D, and 4.
Other assumptions	Same as those used in the December 31, 2021 funding actuarial valuation	Same as those used in the December 31, 2020 funding actuarial valuation

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 prior years' sufficiency valuation. The key assumptions used for rolling forward the total OPEB liability to December 31, 2022, are as follows:

Investment Rate of Return	7.00% net of OPEB plan investment expense, including inflation
Inflation	2.75%
Health Care Premium Trend Rates	
Non-Medicare medical plan	Graded from 7.50% to ultimate 4.50 over 12 years
Medicare medical plan	Graded from 6.25% to ultimate 4.50 over 7 years
Dental	4.00% for the first year to reflect a three-year rate guarantee and 4.00% thereafter.
Vision	0.00% for the first two years to reflect a five-year rate guarantee and 4.00% thereafter.
Medicare Part B reimbursement	4.50%
Other Assumptions	Based on the experience study for the period December 1, 2016 through November 30, 2019.

Supplemental Schedules

Administration Expense

For the Year Ended December 31, 2022

(Dollars in Thousands)

Personnel Services	
Staff Wages	\$ 7,894
Fringe Benefits	3,926
Temporary Services	276
Total Personnel Services	12,096
Professional Services	
Consultant Fees	424
Audit	102
Total Professional Services	526
Communications	
Printing	60
Postage	64
Communication	120
Total Communications	244
Office Space and Utilities	
Office Space and Utilities ³	(7)
Total Office Space and Utilities	(7)
Lease Expenses	
Interest on Lease Liabilities	8
Amortization of Right-to-use Assets	33
Total Lease Expenses	41
Other	
Depreciation and Amortization	84
Board Operating Expenses	348
Insurance	422
Miscellaneous	343
Training	157
Equipment Leases ²	2
Equipment Maintenance	57
Supplies	13
Total Other	1,426
Subtotal: Administrative Expense Subject to Statutory Limit	14,326
Actuarial Expenses	382
Business Continuity	552
Legal Expenses	839
Technology Expenses	927
Subtotal: Administration Expense Excluded from Statutory Limit¹	2,700
TOTAL ADMINISTRATION EXPENSE	\$ 17,026

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

² Lease expenses that do not fall under GASB 87.

³ Includes a credit adjustment from 2021 for office escalation charges.

Investment Expenses

For the Year Ended December 31, 2022

(Dollars in Thousands)

Investment Manager Fees ¹	\$ 36,307
Brokerage Commissions	628
Investment Allocated Costs	3,139
Investment Consultants	1,250
Other Investment Expenses/(Income)	266
Investment Custodians	558
Total Investment Expenses	\$ 42,148

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

Payments to Other Consultants¹

For the Year Ended December 31, 2022

(Dollars in Thousands)

Actuarial & Audit Services	\$ 562
Human Resources Consulting	77
Legal Services	137
Other Specialized Services	497
Total Payments to Consultants	\$ 1,273

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



ALAMEDA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

Audit Results for the Year Ended
December 31, 2022



Confidence Earned

AUDIT RESULTS

- ▶ Audit is substantially complete.
- ▶ The audit was conducted in accordance with the plan communicated to you in February 2023.
- ▶ Basic Financial Statements
 - Unmodified opinion
- ▶ Internal Control and Compliance (Yellow Book)
 - No significant deficiencies or material weaknesses.
 - '37 Act Requirements - No Exceptions.
 - Administrative Limitation - Within the limitation.
 - ACERA Policies and Procedures - No exceptions.
 - No compliance findings.
- ▶ Final report to be submitted to the full Board upon acceptance by the Audit Committee.

AUDIT RESULTS

- ▶ Audit opinion
 - Independence
 - Emphasis of matters
 - Responsibilities of management
 - Financial statements
 - Internal control
 - Going concern evaluation
 - Auditor's responsibilities
 - Exercise professional judgment and maintain professional skepticism.
 - Design and perform audit procedures to respond to identified risks of material misstatement, whether due to fraud or error.

AUDIT RESULTS

- ▶ Audit opinion
 - Auditor's responsibilities
 - Obtain an understanding of internal control to design audit procedures, but not to express an opinion.
 - Evaluate accounting policies, significant accounting estimates and the overall presentation of the financial statements.
 - Conclude regarding the ability to continue as a going concern.

REQUIRED COMMUNICATIONS

- ❑ Management estimates include:
 - Valuation of alternative investments
 - Actuarial assumptions

- ❑ No significant difficulties in dealing with management; or disagreements related to financial accounting, reporting, or auditing matters with management.

- ❑ There were no adjustments and no passed adjustments.

- ❑ We are not aware of any consultations by management with other accountants.

- ❑ We will request that management complete a management representation letter.

- ❑ As part of our audit, we considered ACERA's internal control solely for the purpose of determining our auditing procedures and not to provide any assurance concerning such internal control.

REQUIRED COMMUNICATIONS

Additions (Revenue)	Management Override of Controls	Investments
<p><u>Risks</u></p> <ul style="list-style-type: none"> ❑ Contributions are misstated. ❑ Investment income, including appreciation, is misstated. 	<p><u>Risks</u></p> <ul style="list-style-type: none"> ❑ Financial statements could be materially misstated. ❑ Misappropriation of assets. 	<p><u>Risks</u></p> <ul style="list-style-type: none"> ❑ Misstatement of account balances. ❑ Valuations not reported using proper methodology. ❑ Transactions reported in incorrect period. ❑ Assets not held in ACERA's name.
<p><u>Audit Response</u></p> <ul style="list-style-type: none"> ❑ Confirm with employers the amount of contributions and related receivables. ❑ Confirm investment income and perform analytical procedures. 	<p><u>Audit Response</u></p> <ul style="list-style-type: none"> ❑ Evaluate and update our understanding of controls over the financial reporting process. ❑ Select a sample of transactions and test to see if controls are operating effectively. 	<p><u>Audit Response</u></p> <ul style="list-style-type: none"> ❑ Independent confirmation and reconciliation testing. ❑ Review of third party valuations and market quotes.

REQUIRED COMMUNICATIONS

- ❑ Management is responsible for the selection and use of appropriate accounting policies. The significant accounting policies used by ACERA are described in Note 1 of the financial statements.
- ❑ We noted no transactions entered into by ACERA during the year for which there is a lack of authoritative guidance or consensus.
- ❑ There are no significant transactions recognized in the financial statements in a different period than when the transaction occurred.
- ❑ We applied certain limited procedures to the RSI, but express no opinion.
- ❑ We performed procedures on the supplementary information and concluded the information is fairly stated in all material respects in relation to the basic financial statements as a whole.



MEMORANDUM TO THE AUDIT COMMITTEE

DATE: May 18, 2023

TO: Members of the Audit Committee

FROM: Erica Haywood, Fiscal Services Officer *EH*

SUBJECT: Governmental Accounting Standards Board (GASB) Statement No. 67 and Statement No. 74 Actuarial Valuations and Addendums as of December 31, 2022

Executive Summary

Staff has completed its review and evaluation of the GASB Statement No. 67 and Statement No. 74 Actuarial Valuations and Addendums¹ as of December 31, 2022. Staff and ACERA's actuary, Segal Consulting, conducted presentations of this information at the following meetings:

- April 20, 2023, Audit Committee meeting; and
- April 26, 2023, Participating Employers' Meeting

Having no need for further review, staff recommends the Board of Retirement consider a motion to adopt the GASB Statement No. 67 and Statement No. 74 Actuarial Valuations and Addendums as of December 31, 2022.

Recommendation

Staff recommends that the Audit Committee recommend that the Board of Retirement adopt the GASB Statement No. 67 and Statement No. 74 Actuarial Valuations and Addendums as of December 31, 2022.

Attachments:

Governmental Accounting Standards Board (GASB) Statement No. 67 and Statement No. 74 Actuarial Valuations and Addendums as of December 31, 2022

¹The addendums contain additional schedules recommended by the American Institute of Certified Public Accountants (AICPA) for use in allocating the Net Pension Liability (NPL) and the Net OPEB Liability (NOL) by employer, before issuing the full companion reports for the employers' financial reporting under GASB Statement No. 68 and Statement No. 75.

Alameda County Employees' Retirement Association (ACERA)

Governmental Accounting Standards Board Statement 67 (GASB 67) Actuarial Valuation

As of December 31, 2022

DRAFT



This report has been prepared at the request of the Board of Retirement to assist in administering the Fund. This valuation report may not otherwise be copied or reproduced in any form without the consent of the Board of Retirement and may only be provided to other parties in its entirety, unless expressly authorized by Segal. The measurements shown in this actuarial valuation may not be applicable for other purposes.

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April 10, 2023

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

Dear Board Members:

We are pleased to submit this Governmental Accounting Standards Board Statement 67 (GASB 67) Actuarial Valuation as of December 31, 2022. It contains various information that will need to be disclosed in order to comply with GASB 67.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist ACERA in preparing items related to the pension plan in their financial report. The census and financial information on which our calculations were based were provided by ACERA. That assistance is gratefully acknowledged.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; and changes in plan provisions or applicable law.

The actuarial calculations were completed under the supervision of Eva Yum, FSA, MAAA, Enrolled Actuary. We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in the actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and expectations for ACERA.

We look forward to reviewing this report with you and to answering any questions.

Sincerely,

Segal

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

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

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Section 1: Actuarial Valuation Summary

Purpose and basis

This report has been prepared by Segal to present certain disclosure information required by Governmental Accounting Standards Board Statement 67 (GASB 67) as of December 31, 2022. This valuation is based on:

- The benefit provisions of ACERA, as administered by the Board;
- The characteristics of covered active members, inactive vested members, and retired members and beneficiaries as of November 30, 2021, provided by ACERA;
- The assets of the Plan as of December 31, 2022, provided by ACERA;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board for the December 31, 2022 valuation; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc. adopted by the Board for the December 31, 2022 valuation.

General observations on GASB 67 actuarial valuation

1. It is important to note that Governmental Accounting Standards Board (GASB) rules only define pension liability and expense for financial reporting purposes, and do not apply to contribution amounts for pension funding purposes. Employers and plans develop and adopt funding policies under current practices.
2. When measuring pension liability, GASB uses the same actuarial cost method (Entry Age method) 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 shown in this report is generally determined on the same basis as ACERA's Actuarial Accrued Liability (AAL) measure for funding. We note that the same is generally true for the Normal Cost component of the annual plan cost for funding and financial reporting.
3. 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 an Unfunded Actuarial Accrued Liability (UAAL) on a market value basis.

Section 1: Actuarial Valuation Summary

Highlights of the valuation

1. The NPL increased from \$792 million as of December 31, 2021 to \$2,231 million as of December 31, 2022 primarily as a result of unfavorable investment return during calendar year 2022 of about \$1,463 million¹ less than assumed. Changes in these values during the last two fiscal years ending December 31, 2021 and December 31, 2022 can be found in *Section 2, Schedule of Changes in Net Pension Liability* on page 18.
2. As we disclosed in our December 31, 2022 funding valuation report, the 7.00% investment return assumption that the Board approved on October 15, 2020 for determining the liabilities for funding purposes and used for establishing the employer and employee contribution rates has continued to be 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 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 determination of the TPL) that would average approximately 0.65% of assets over time. This approximated outflow was incorporated into our GASB crossover test² (Appendix A), 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.

3. The NPL measured as of December 31, 2022 was determined by rolling forward the TPL for the funded benefits as of December 31, 2021. Similar to last year, we have included in the TPL as of December 31, 2022 the non-OPEB unlimited Actuarial Accrued Liability (AAL) of \$144.8 million, which was calculated by rolling forward the total unlimited non-OPEB AAL as of December 31, 2021.
4. As of December 31, 2022, the deferred investment loss for the entire Plan was \$794 million. The proportionate share of the net deferred investment loss as of December 31, 2022 for the Pension Plan was equal to \$716.5 million and in calculating the Plan’s Fiduciary Net Position we have adjusted the Pension Plan’s valuation value of assets in the funding valuation to reflect that amount. We have also continued the practice of adjusting the Plan’s Fiduciary Net Position as of December 31, 2022 to include

¹ This amount represents the investment income on the Plan’s Fiduciary Net Position for the Pension Plan and non-OPEB SRBR that is below the assumed earnings (actual market return of -7.5% versus 7.00% assumed in the valuation) for the year ending December 31, 2022. It also includes the change in the Contingency Reserve from last year to this year.

² 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 later in this 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.

Section 1: Actuarial Valuation Summary

the \$54.9 million set aside by the Retirement Board in the SRBR reserve to pay non-vested Supplemental COLA and retired member death benefits³ as of December 31, 2022. 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 \$3.6 million. The net effect of the adjustments to the Plan's Fiduciary Net Position as of December 31, 2022 for non-OPEB SRBR benefits was an addition of \$51.3 million.

5. The \$93.5 million difference between the \$144.8 million added to the TPL and the net \$51.3 million added to the Plan's Fiduciary Net Position as of December 31, 2022 represents the NPL attributable to non-OPEB SRBR benefits.
6. The discount rate used to measure the TPL and NPL as of December 31, 2022 and December 31, 2021 was 7.00%, following the same assumptions used by ACERA in the pension funding valuations as of December 31, 2022 and December 31, 2021, respectively. The detailed calculations used in the derivation of the 7.00% discount rate as of December 31, 2022 can be found in *Section 3, Appendix A*. Various other information that is required to be disclosed can be found throughout *Section 2*.

³ 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.

Section 1: Actuarial Valuation Summary

Summary of key valuation results

Measurement Date		December 31, 2022	December 31, 2021
Disclosure elements for fiscal year ending December 31:	• Service cost ⁽¹⁾	\$245,467,025	\$235,098,619
	• Total Pension Liability	11,489,051,341	11,009,508,484
	• Plan's Fiduciary Net Position ⁽²⁾	9,257,791,490	10,217,221,404
	• Net Pension Liability	2,231,259,851	792,287,080
Schedule of contributions for fiscal year ending December 31:	• Actuarially determined contributions	\$281,646,702	\$303,964,590
	• Actual contributions ⁽³⁾	281,646,702	1,116,575,840
	• Contribution deficiency / (excess)	0	(812,611,250)
Demographic data for plan year ending December 31:⁽⁴⁾	• Number of retired members and beneficiaries	10,798	10,536
	• Number of inactive vested members ⁽⁵⁾	3,564	3,265
	• Number of active members	11,346	11,326
Key assumptions as of December 31:	• Investment rate of return	7.00%	7.00%
	• Inflation rate	2.75%	2.75%
	• Real across-the-board salary increase	0.50%	0.50%
	• Projected salary increases ⁽⁶⁾	General: 8.35% to 3.65% Safety: 11.25% to 4.05%	General: 8.35% to 3.65% Safety: 11.25% to 4.05%

(1) The Service Cost is based on the previous year's valuation, meaning the December 31, 2022 and December 31, 2021 measurement date values are based on the valuations as of December 31, 2021 and December 31, 2020, respectively. Both service costs have been calculated using the assumptions shown in the December 31, 2021 column, as there had been no changes in the actuarial assumptions between the December 31, 2020 and December 31, 2021 valuations.

(2) For 2022, the Plan's Fiduciary Net Position amount shown (\$9,257,791,490) includes the net fair value of assets (\$10,298,512,063) less OPEB-related SRBR assets (\$1,040,720,573). The OPEB-related SRBR assets include \$1,105,725,871 in the SRBR-OPEB reserve (after reducing the reserve by the \$7,981,476 SRBR implicit subsidy transfer), and \$8,979,234 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 (\$73,984,532). For 2021, the Plan's Fiduciary Net Position amount shown (\$10,217,221,404) includes the net fair value of assets (\$11,840,862,896) less OPEB-related SRBR assets (\$1,623,641,492). The OPEB-related SRBR assets include \$1,073,475,020 in the SRBR-OPEB reserve (after reducing the reserve by the \$5,652,613 SRBR implicit subsidy transfer), and \$9,229,285 in the 401(h) reserve, plus a proportionate share of one half of the deferred market gains (after adjustment to replenish the balance in the Contingency Reserve, if any) commensurate with the size of the OPEB to total SRBR and 401(h) reserve to valuation and 401(h) reserves (\$540,937,187).

(3) 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 contributions made to the 401(h) account in (ii). For the year ending December 31, 2021, the actual employer contributions are greater than the actuarially determined contributions by \$813 million due to voluntary County Safety and LARPD General contributions to reduce their UAAL and associated contribution rates.

(4) Data as of December 31, 2021 is used in the measurement of the TPL as of December 31, 2022.

(5) Includes members who left their contributions on deposit even though they have less than five years of service.

(6) Includes inflation at 2.75% plus real across-the-board salary increase of 0.50% plus merit and promotional increases.

Section 1: Actuarial Valuation Summary

Important information about actuarial valuations

An actuarial valuation is a budgeting tool with respect to the financing of future projected obligations of a pension plan. It is an estimated forecast – the actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

In order to prepare a valuation, Segal relies on a number of input items. These include:

Plan provisions	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan description in this report (as well as the plan summary included in our funding valuation report) to confirm that Segal has correctly interpreted the plan of benefits.
Participant information	An actuarial valuation for a plan is based on data provided to the actuary by ACERA. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
Financial information	The valuation is based on the fair value of assets as of the valuation date, as provided by ACERA. The Association uses an “actuarial value of assets” that differs from fair value to gradually reflect six-month changes in the fair value of assets in determining contribution requirements.
Actuarial assumptions	In preparing an actuarial valuation, Segal starts by developing a forecast of the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of participants in each year, as well as forecasts of the plan’s benefits for each of those events. In addition, the benefits forecasted for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments. The forecasted benefits are then discounted to a present value, typically based on an estimate of the rate of return that will be achieved on the plan’s assets. All of these factors are uncertain and unknowable. Thus, there will be a range of reasonable assumptions, and the results may vary materially based on which assumptions are selected within that range. That is, there is no right answer (except with hindsight). It is important for any user of an actuarial valuation to understand and accept this constraint. The actuarial model may use approximations and estimates that will have an immaterial impact on our results. In addition, the actuarial assumptions may change over time, and while this can have a significant impact on the reported results, it does not mean that the previous assumptions or results were unreasonable or wrong.
Models	Segal valuation results are based on proprietary actuarial modeling software. The actuarial valuation models generate a comprehensive set of liability and cost calculations that are presented to meet regulatory, legislative and client requirements. Our Actuarial Technology and Systems unit, comprised of both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuary.

Section 1: Actuarial Valuation Summary

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

The valuation is prepared at the request of the Board to assist ACERA in preparing items related to the pension plan in their financial reports. Segal is not responsible for the use or misuse of its report, particularly by any other party.

An actuarial valuation is a measurement at a specific date – it is not a prediction of a plan's future financial condition. Accordingly, Segal did not perform an analysis of the potential range of future financial measurements, except where otherwise noted.

If ACERA is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.

Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. The Board should look to their other advisors for expertise in these areas.

While Segal maintains extensive quality assurance procedures, an actuarial valuation involves complex computer models and numerous inputs. In the event that an inaccuracy is discovered after presentation of Segal's valuation, Segal may revise that valuation or make an appropriate adjustment in the next valuation.

Segal's report shall be deemed to be final and accepted by ACERA upon delivery and review. Trustees should notify Segal immediately of any questions or concerns about the final content.

As Segal has no discretionary authority with respect to the management or assets of ACERA, it is not a fiduciary in its capacity as actuaries and consultants with respect to ACERA.

Section 2: GASB 67 Information

General information about the pension plan

Plan Description

Plan administration. The Alameda County Employees' Retirement Association (ACERA) was established by the Alameda County Board of Supervisors in 1947. ACERA is administered by the Board of Retirement and governed by the County Employees' Retirement Law of 1937 (California Government Code Section 31450 et. seq.). ACERA is a cost-sharing, multiple employer, defined benefit, public employee retirement system whose main function is to provide service retirement, disability, death, and survivor benefits to the General and Safety members employed by the County of Alameda. ACERA also provides retirement benefits to the employee members of First 5 Alameda County, Housing Authority of the County of Alameda, Alameda Health System, Livermore Area Recreation and Park District (LARP), Superior Court of California—County of Alameda, and Alameda County Office of Education.

The management of ACERA is vested with the ACERA Board of Retirement. The Board consists of nine members and two alternates. The County Treasurer is a member of the Board of Retirement by law and is elected by the general public. Four members are appointed by the Board of Supervisors, one of whom may be a County Supervisor. Two active members are elected by the General members; one active member and one alternate are elected by the Safety members; one retired member and one alternate are elected by the retired members. All members of the Board of Retirement serve terms of three years except for the County Treasurer whose term runs concurrent with his term as County Treasurer.

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

Retired members or beneficiaries currently receiving benefits	10,798
Inactive vested members entitled to but not yet receiving benefits⁽¹⁾	3,564
Active members	<u>11,346</u>
Total	25,708

⁽¹⁾ Includes terminated members due a refund of member contributions.

Note: Data as of December 31, 2022 is not used in the measurement of the TPL as of December 31, 2022.

Section 2: GASB 67 Information

Benefits provided. ACERA provides service retirement, disability, death, and survivor benefits to eligible employees. The first date of ACERA membership varies by employer, as follows:

- Alameda County, Alameda Health System and Alameda Superior Court Employees: Membership for these employees is effective on the first day of the second pay period following the employee's hire date in an ACERA covered position. This is the date of entry into ACERA membership. As of the date of entry, payroll deductions for retirement contributions begin and service credit for each hour worked is earned. During the short period between the beginning of employment and the ACERA plan date of entry, the employee does not pay contributions or earn service credit. A member may purchase this service credit (referred to as "days prior to entry") any time before retirement without changing the membership, but date of entry does not change.
- Housing Authority and Livermore Area Recreation and Park District Employees: Membership for these employees is effective on the first day of employee's hire in an ACERA covered position. The first date of employment is the date of entry into ACERA membership. As of this date of entry, payroll deductions for retirement contributions begin and service credit for each hour work is earned.
- First 5 Employees: Membership for these employees is effective on the first day of the second pay period following the employee's hire date.
- Office of Education Employees: This is a closed plan with no more active employees (i.e., there is no new ACERA membership. However, the employer does retain retired members and beneficiaries in the Retirement Association as of the December 31, 2022 valuation date).

There are separate retirement benefits for General and Safety members. Safety membership is extended to those involved in active law enforcement, deferred firefighters, or positions that have been designated as Safety by the Board of Retirement (e.g. Juvenile Hall Group Counselor, Probation Officer, etc.). All other employees are classified as General members.

Any new member who becomes a member on or after January 1, 2013 is placed into Tier 4 and is subject to the provisions of California Public Employees' Pension Reform Act of 2013 (PEPRA), California Government Code 7522 et seq. and Assembly Bill (AB) 197.

General members enrolled in Tiers 1, 2, or 3 are eligible to retire once they attain the age of 70 regardless of service or at age 50 with five or more years of retirement service credit and a total of 10 years of qualifying membership. A non-Tier 4 General member with 30 years of service is eligible to retire regardless of age. General members enrolled in Tier 4 are eligible to retire once they have attained the age of 52 and have acquired five years of retirement service credit, or at age 70 regardless of service.

Safety members enrolled in Tiers 1, 2, 2C, or 2D are eligible to retire once they attain the age of 70 regardless of service or at age 50 with five or more years of retirement service credit and a total of 10 years of qualifying membership. A non-Tier 4 Safety member with 20 years of service is eligible to retire regardless of age. Safety members enrolled in Tier 4 are eligible to retire once they have attained the age of 50 and have acquired five years of retirement service credit, or at age 70 regardless of service.

The retirement benefit the member will receive is based upon age at retirement, final average compensation, years of retirement service credit and retirement plan and tier.

Section 2: GASB 67 Information

The tiers and their basic provisions are listed below:

Tier Name	Service Retirement Governing Code Section	Effective Date	Basic Provisions	Final Average Salary Period	Plan Sponsors
General Tier 1	§31676.12	Various	2.0% at 57; maximum 3% COLA	Highest 1-year	All
General Tier 2	§31676.1	June 30, 1983*	2.0% at 61; maximum 2% COLA	Highest 3-years	All except LARPD
General Tier 3	§31676.18	October 1, 2008	2.5% at 55; maximum 3% COLA	Highest 1-year	LARPD
General Tier 4	§7522.20(a)	January 1, 2013	2.5% at 67; maximum 2% COLA	Highest 3-years	All
Safety Tier 1	§31664.1	Various	3.0% at 50; maximum 3% COLA	Highest 1-year	County
Safety Tier 2	§31664.1	June 30, 1983	3.0% at 50; maximum 2% COLA	Highest 3-years	County
Safety Tier 2C	§31664	October 17, 2010	2.6% at 55; maximum 2% COLA	Highest 3-years	County
Safety Tier 2D	§31664.2	October 17, 2010	3.0% at 55; maximum 2% COLA	Highest 3-years	County
Safety Tier 4	§7522.25(d)	January 1, 2013	2.7% at 57; maximum 2% COLA	Highest 3-years	County

* For Housing Authority members, the effective date is September 30, 2011.

For members enrolled in Tiers 1, 2, 2C, 2D, or 3, the maximum monthly retirement allowance is 100% of final compensation. There is no maximum for members enrolled in Tier 4.

The member may elect an unmodified retirement allowance, or choose an optional retirement allowance. The unmodified retirement allowance provides the highest monthly benefit and a 60% continuance to an eligible surviving spouse or domestic partner. An eligible surviving spouse or domestic partner is one married to or registered with the member one year prior to the effective retirement date. There are four optional retirement allowances the member may choose. Each of the optional retirement allowances requires a reduction in the unmodified retirement allowance in order to allow the member the ability to provide certain benefits to a surviving spouse, domestic partner, or named beneficiary having an insurable interest in the life of the member.

Section 2: GASB 67 Information

ACERA provides an annual cost-of-living benefit to all retirees. The cost-of-living adjustment, based upon the Consumer Price Index for the San Francisco-Oakland-Hayward Area (with 1982-84 as the base period), is capped at 3.0% for General Tiers 1 and 3 and Safety Tier 1, and at 2.0% for General Tiers 2 and 4 and Safety Tiers 2, 2C, 2D, and 4.

The County of Alameda and the other participating agencies contribute to the retirement plan based upon actuarially determined contribution rates adopted by the Board of Retirement. Employer contribution rates are adopted annually based upon recommendations received from ACERA's actuary after the completion of the annual actuarial valuation. The average employer contribution rate as of December 31, 2022 for 2022 (based on the December 31, 2020 valuation for the second half of 2021/2022 and on the December 31, 2021 valuation for the first half of 2022/2023) was 23.49% of compensation.

Members are required to make contributions to ACERA regardless of the retirement plan or tier in which they are included. The average member contribution rate as of December 31, 2022 for 2022 (based on the December 31, 2020 valuation for the second half of 2021/2022 and on the December 31, 2021 valuation for the first half of 2022/2023) was 10.06% of compensation.

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Section 2: GASB 67 Information

Net pension liability

Measurement Date	December 31, 2022	December 31, 2021
Components of the Net Pension Liability		
Total Pension Liability	\$11,489,051,341	\$11,009,508,484
Plan's Fiduciary Net Position	(9,257,791,490)	(10,217,221,404)
Net Pension Liability	\$2,231,259,851	\$792,287,080
Plan's Fiduciary Net Position as a percentage of the Total Pension Liability	80.58%	92.80%

The Net Pension Liability for the plan was measured as of December 31, 2022 and 2021. Plan's Fiduciary Net Position (plan assets) was valued as of the measurement dates and the Total Pension Liability was determined based upon rolling forward the TPL from actuarial valuations as of December 31, 2021 and 2020, respectively.

Plan provisions. The plan provisions used in the measurement of the NPL as of December 31, 2022 and 2021 are the same as those used in ACERA's funding valuations as of December 31, 2022 and 2021, respectively.

Actuarial assumptions. The TPLs as of December 31, 2022 and 2021 that were measured by actuarial valuations as of December 31, 2021 and 2020, respectively, used the same actuarial assumptions as the December 31, 2022 and 2021 funding valuations, respectively. The actuarial assumptions used in the December 31, 2022 and 2021 funding valuations were based on the results of an experience study for the period December 1, 2016 through November 30, 2019. In particular, the following actuarial assumptions were applied to all periods included in the measurement:

Investment rate of return:	7.00%, net of pension plan investment expense, including inflation
Inflation rate:	2.75%
Real across-the-board salary increase:	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
Cost of living adjustments:	2.75% of retirement income for General Tiers 1 and 3, and Safety Tier 1; 2.00% for General Tiers 2 and 4, and Safety Tiers 2, 2C, 2D, and 4
Other assumptions:	See analysis of actuarial experience during the period December 1, 2016 through November 30, 2019

Section 2: GASB 67 Information

Determination of discount rate and investment rates of return

The long-term expected rate of return on pension plan investments⁴ was determined in 2020 using a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage, adding expected inflation and subtracting expected investment expenses and a risk margin. The target allocation (approved by the Board) and projected arithmetic real rates of return for each major asset class, after deducting inflation but before deducting investment expenses, are shown in the following table. This information was used in the derivation of the long-term expected investment rate of return assumption for the December 31, 2022 actuarial valuation. This information will be subject to change every three years based on the results of an actuarial experience study.

Asset Class	Target Allocation	Long-Term Expected Arithmetic Real Rate of Return
US Large Cap Equity	22.40%	5.43%
US Small Cap Equity	2.50%	6.21%
International Developed Equity	17.00%	6.67%
International Small Cap Equity	3.00%	7.36%
Emerging Markets Equity	5.00%	8.58%
Core Plus Fixed Income	11.50%	1.10%
High Yield Bonds	1.60%	2.91%
Global Fixed Income	3.00%	-0.63%
Private Equity	10.50%	10.00%
Core Real Estate	8.00%	4.58%
Commodities	0.75%	3.46%
Infrastructure	1.75%	7.80%
Private Credit	4.00%	8.50%
Absolute Return	9.00%	3.70%
Total	100.00%	5.56%

⁴ 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.)

Section 2: GASB 67 Information

Discount rate. The discount rate used to measure the Total Pension Liability (TPL) was 7.00% as of December 31, 2022 and December 31, 2021. Our understanding is 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 assumption for funding than is used for interest crediting. In order to reflect the provisions of Article 5.5, we have treated future allocations to the SRBR as an additional outflow against the Plan's Fiduciary Net Position in the GASB crossover test, as mentioned earlier in Section 1. Again, we are estimating that the additional outflow would average approximately 0.65% of assets over time, based on the results of our 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 rates⁵ 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 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, 2022 and December 31, 2021.

⁵ For this purpose, only employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included.

Section 2: GASB 67 Information

Discount rate sensitivity

Sensitivity of the Net Pension Liability to changes in the discount rate. The following presents the Net Pension Liability of ACERA as of December 31, 2022, calculated using the discount rate of 7.00%, as well as what ACERA's NPL 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.

	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
Net Pension Liability as of December 31, 2022	\$3,710,531,729	\$2,231,259,851	\$1,012,686,077

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Section 2: GASB 67 Information

Schedule of changes in Net Pension Liability – Last two fiscal years

Measurement Date	December 31, 2022	December 31, 2021
Total Pension Liability		
• Service cost ⁽¹⁾	\$245,467,025	\$235,098,619
• Interest	767,151,503	741,738,512
• Change of benefit terms	0	0
• Differences between expected and actual experience	58,260,983	(50,359,948)
• Changes of assumptions	0	0
• Benefit payments, including refunds of member contributions	(591,336,654)	(556,269,070)
Net change in Total Pension Liability	\$479,542,857	\$370,208,113
Total Pension Liability – beginning	<u>11,009,508,484</u>	<u>10,639,300,371</u>
Total Pension Liability – ending	<u>\$11,489,051,341</u>	<u>\$11,009,508,484</u>
Plan’s Fiduciary Net Position		
• Contributions – employer ⁽²⁾	\$281,646,702	\$1,116,575,840
• Contributions – member	120,673,520	111,091,264
• Net investment income	(755,044,439)	1,115,978,652
• Benefit payments, including refunds of member contributions	(591,336,654)	(556,269,070)
• Administrative expense	(15,369,043)	(15,039,778)
• Other	0	0
Net change in Plan’s Fiduciary Net Position	\$ (959,429,914)	\$1,772,336,908
Plan’s Fiduciary Net Position⁽³⁾ – beginning	<u>10,217,221,404</u>	<u>8,444,884,496</u>
Plan’s Fiduciary Net Position⁽³⁾ – ending	<u>\$9,257,791,490</u>	<u>\$10,217,221,404</u>
Net Pension Liability – ending	<u>\$2,231,259,851</u>	<u>\$792,287,080</u>
Plan’s Fiduciary Net Position as a percentage of the Total Pension Liability	80.58%	92.80%
Covered payroll⁽⁴⁾	\$1,198,970,345	\$1,153,918,121
Plan Net Pension Liability as percentage of covered payroll	186.10%	68.66%

(1) The Service Cost is based on the previous year’s valuation, meaning the December 31, 2022 and December 31, 2021 measurement date values are based on the valuations as of December 31, 2021 and December 31, 2020, respectively. See page 7 for the assumptions used in calculating the Service Cost.

(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 contributions made to the 401(h) account in (ii). Also, the County and LARPD made voluntary contributions of \$800 million (County Safety) and \$12.611 million (LARPD General), respectively in 2021.

(3) See footnote (2) on page 7 for a discussion on the development of the 2022 “Plan’s Fiduciary Net Position – beginning” amount of \$10,217,221,404 and the 2022 “Plan’s Fiduciary Net Position – ending” amount of \$9,257,791,490.

(4) Covered payroll represents Compensation Earnable and Pensionable Compensation and is defined as the payroll on which contributions to the pension plan are based.

Section 2: GASB 67 Information

Schedule of contributions – Last ten fiscal years

Year Ended December 31	Actuarially Determined Contributions	Contributions in Relation to the Actuarially Determined Contributions	Contribution Deficiency / (Excess)	Covered Payroll ⁽¹⁾	Contributions as a Percentage of Covered Payroll
2013	\$191,180,146	\$191,180,146	\$0	\$853,349,657	22.40%
2014	213,254,775	213,254,775	0	886,924,862	24.04%
2015	224,607,104	224,607,104	0	945,858,017 ⁽²⁾	23.75%
2016	241,728,451	241,728,451	0	947,567,631	25.51%
2017	247,063,550	247,063,550	0	995,178,209	24.83%
2018	269,684,809	269,684,809	0	1,046,033,851	25.78%
2019	298,526,950	298,526,950	0	1,081,586,887	27.60%
2020	309,758,947	309,752,998	5,949 ⁽³⁾	1,111,848,569	27.86%
2021	303,964,590	1,116,575,840	(812,611,250) ⁽⁴⁾	1,153,918,121	96.76% ⁽⁵⁾
2022	281,646,702	281,646,702	0	1,198,970,345	23.49%

⁽¹⁾ 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 go into the determination of retirement benefits was included.

⁽²⁾ ACERA indicated that this amount is based on 27 pay periods for 2015.

⁽³⁾ Actuarially Determined Contribution for the Alameda County Office of Education of \$78,000 less actual contributions paid of \$72,051.

⁽⁴⁾ Voluntary County Safety contributions of \$800,000,000 and LARPD General contributions of \$12,611,250 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.

See accompanying notes to this schedule on next page.

Section 2: GASB 67 Information

Notes to Schedule:

Methods and assumptions used to establish “actuarially determined contribution” rates:

Valuation date:	Actuarially determined contribution rates for the first six months of calendar year 2022 (or the second half of fiscal year 2021/2022) are calculated based on the December 31, 2020 valuation. Actuarially determined contribution rates for the last six months of calendar year 2022 (or the first half of fiscal year 2022/2023) are calculated based on the December 31, 2021 valuation.
Actuarial cost method:	Entry Age Actuarial Cost Method
Amortization method:	Level percent of payroll (3.25% payroll growth assumed in the December 31, 2021 and December 31, 2020 valuations)
Remaining amortization period:	<p><u>December 31, 2020 valuation</u></p> <p>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 12 years remaining as of December 31, 2020). 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. 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. The contribution rate credits associated with these voluntary contributions, determined using bases in the December 31, 2020 valuation, are provided effective July 1, 2021. 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.</p> <p><u>December 31, 2021 valuation</u></p> <p>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). 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. 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.</p>

Section 2: GASB 67 Information

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 assets is the actuarial value of assets reduced by the value of the non-valuation reserves.

Actuarial assumptions:

Valuation Date:	December 31, 2020 Valuation	December 31, 2021 Valuation
Investment rate of return:	7.00%, net of pension plan administrative and investment expense, including inflation	7.00%, net of pension plan administrative and investment expense, including inflation
Inflation rate:	2.75%	2.75%
Real across-the-board salary increase:	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; 2.00% 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; 2.00% for General Tiers 2 and 4, and Safety Tiers 2, 2C, 2D, and 4
Other assumptions:	Same as those used in the December 31, 2020 funding actuarial valuation	Same as those used in the December 31, 2021 funding actuarial valuation

Section 3: Appendices

Appendix A: Projection of Pension Plan's Fiduciary Net Position (\$ in millions) for use in the Calculation of Discount Rate as of December 31, 2022

Year Beginning January 1,	Projected Beginning Plan Fiduciary Net Position (a)	Projected Total Contributions (b)	Projected Benefit Payments (c)	Projected Administrative Expenses (d)	Projected Investment Earnings (e)	Projected Ending Plan Fiduciary Net Position (f) = (a) + (b) - (c) - (d) + (e)
2022	10,217	402	591	15	-755	9,258
2023	9,258	375	686	14	633	9,566
2024	9,566	386	718	14	654	9,873
2025	9,873	401	750	15	674	10,183
2026	10,183	415	782	15	695	10,496
2027	10,496	447	814	16	717	10,831
2028	10,831	455	846	16	739	11,163
2029	11,163	462	878	17	762	11,491
2030	11,491	470	911	17	783	11,817
2046	13,044	298	1,252	20	872	12,943
2047	12,943	245	1,260	19	863	12,771
2048	12,771	239	1,266	19	851	12,576
2049	12,576	237	1,270	19	837	12,361
2091	1,574	50	137	2	106	1,590
2092	1,590	47	119	2	108	1,624
2093	1,624	44	102	2	111	1,674
2094	1,674	41	87	3	115	1,740
2095	1,740	39	75	3	120	1,821
2096	1,821	37	64	3	126	1,917
2097	1,917	35	55	3	133	2,027
2098	2,027	33	47	3	141	2,151
2099	2,151	32	41	3	150	2,289
2100	2,289	31	37	3	160	2,439
2101	2,439	31	33	4	170	2,604
2102	2,604	30	30	4	182	2,782
2112	5,096	42	35	8	356	5,452
2113	5,452	45	37	8	381	5,833
2114	5,833	48	39	9	408	6,241
2115	6,241	51	41	9	437	6,677
2116	6,677	54	44	10	467	7,145
2134	22,570	181	147	34	1,579	24,150
2135	24,150	194	157 *	36	1,690	25,840
2135	Discounted Value:	12				

* Projected benefit payments for the closed group of active, inactive vested, retired members and beneficiaries as of November 30, 2021 is \$0. This amount represents the 0.65% of the beginning-of-year market value to reflect the approximated outflow of future allocations to the SRBR. See Note 6.

Section 3: Appendices

Notes

1. Amounts may not total exactly due to rounding.
2. Amounts shown in the year beginning January 1, 2022 row are actual amounts, based on the financial statements provided by ACERA.
3. Years 2031-2045, 2050-2090, 2103-2111, and 2117-2133 have been omitted from this table.
4. Column (a): Except for the "discounted value" shown for 2135, all of the projected beginning plan fiduciary net position amounts shown have not been adjusted for the time value of money.
5. Column (b): Projected total contributions include employee and employer normal cost contributions based on closed group projections (based on covered active members as of November 30, 2021); plus employer contributions to the unfunded actuarial accrued liability; plus employer contributions to fund each year's annual administrative expenses as well as future allocations of excess earnings to the SRBR under ACERA's funding policy, both reflecting a 20-year amortization schedule. Contributions are assumed to occur halfway through the year, on average.
6. Column (c): Projected benefit payments have been determined in accordance with paragraph 39 of GASB Statement No. 67, and are based on the closed group of active, inactive vested, retired members, and beneficiaries as of November 30, 2021. The projected benefit payments reflect the cost of living increase assumption of 2.75% per annum for Tiers 1 and 3, and 2.00% per annum for Tiers 2 and 4. The projected benefit payments include the Non-OPEB Supplemental Retiree Benefits Reserve (SRBR) benefits to the extent the current Non-OPEB SRBR supports those benefits. Benefit payments are assumed to occur halfway through the year, on average. In accordance with paragraph 31.b.(1)(e) of GASB Statement No. 67, the long-term expected rate of return on Plan investments of 7.00% per annum was applied to all periods of projected benefit payments to determine the discount rate.

In addition, the projected benefit payments in column (c) include an amount equal to 0.65% of the beginning-of-year market value to reflect the approximated outflow of future allocations to the SRBR. This outflow has an estimated present value of \$1.06 billion. This present value of outflow is expected to be sufficient to pay for the remaining present value of the non-OPEB SRBR benefits of \$0.11 billion as well as the remaining present value of the OPEB SRBR benefits of \$0.44 billion.
7. Column (d): Projected administrative expenses are calculated as approximately 0.15% of the beginning plan fiduciary net position amount. The 0.15% portion was based on the actual fiscal year 2022 administrative expenses as a percentage of the beginning plan fiduciary net position amount as of January 1, 2022. Administrative expenses are assumed to occur halfway through the year, on average.
8. Column (e): Projected investment earnings are based on the assumed investment rate of return of 7.00% per annum.
9. As illustrated in this Exhibit, the Plan's fiduciary net position was projected to be available to make all projected future benefit payments for current Plan members. In other words, there is no projected "cross-over date" when projected benefits are not covered by projected assets. Therefore, the long-term expected rate of return on Plan investments of 7.00% per annum was applied to all periods of projected benefit payments to determine the total pension liability as of December 31, 2022 shown earlier in this report, pursuant to paragraph 44 of GASB Statement No. 67.
10. This projection is based on a model developed by our Actuarial Technology and Systems unit, comprised of both actuaries and programmers. The model allows the client team, under the supervision of the responsible actuary, control over the entry of future expected contribution income, benefit payments and administrative expenses. The projection of fiduciary net position and the discounting of benefits is part of the model.

Section 3: Appendices

Appendix B: Definition of Terms

Definitions of certain terms as they are used in Statement 67. The terms may have different meanings in other contexts.

Actuarial Present Value of Projected Benefit Payments:	Projected benefit payments discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment.
Actuarial Valuation:	The determination, as of a point in time (the actuarial valuation date), of the service cost, Total Pension Liability, and related actuarial present value of projected benefit payments for pensions performed in conformity with Actuarial Standards of Practice unless otherwise specified by the GASB.
Actuarial Valuation Date:	The date as of which an actuarial valuation is performed.
Actuarially Determined Contribution:	A target or recommended contribution to a defined benefit pension plan for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.
Ad Hoc Cost-of-Living Adjustments (Ad Hoc COLAs):	Cost-of-living adjustments that require a decision to grant by the authority responsible for making such decisions.
Ad Hoc Postemployment Benefit Changes:	Postemployment benefit changes that require a decision to grant by the authority responsible for making such decisions.
Automatic Cost-of-Living Adjustments (Automatic COLAs):	Cost-of-living adjustments that occur without a requirement for a decision to grant by a responsible authority, including those for which the amounts are determined by reference to a specified experience factor (such as the earnings experience of the pension plan) or to another variable (such as an increase in the consumer price index).
Automatic Postemployment Benefit Changes:	Postemployment benefit changes that occur without a requirement for a decision to grant by a responsible authority, including those for which the amounts are determined by reference to a specified experience factor (such as the earnings experience of the pension plan) or to another variable (such as an increase in the consumer price index).
Cost-of-Living Adjustments:	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.
Cost-Sharing Multiple-Employer Defined Benefit Pension Plan (Cost-Sharing Pension Plan):	A multiple-employer defined benefit pension plan in which the pension obligations to the employees of more than one employer are pooled and pension plan assets can be used to pay the benefits of the employees of any employer that provides pensions through the pension plan.
Covered Payroll:	Payroll on which contributions to a pension plan are based.
Defined Benefit Pension Plans:	Pension plans that are used to provide defined benefit pensions.

Section 3: Appendices

Defined Benefit Pensions:	Pensions for which the income or other benefits that the employee will receive at or after separation from employment are defined by the benefit terms. The pensions may be stated as a specified dollar amount or as an amount that is calculated based on one or more factors such as age, years of service, and compensation. (A pension that does not meet the criteria of a defined contribution pension is classified as a defined benefit pension for purposes of Statement 67.)
Defined Contribution Pension Plans:	Pension plans that are used to provide defined contribution pensions.
Defined Contribution Pensions:	Pensions having terms that (1) provide an individual account for each employee; (2) define the contributions that an employer is required to make (or the credits that it is required to provide) to an active employee's account for periods in which that employee renders service; and (3) provide that the pensions an employee will receive will depend only on the contributions (or credits) to the employee's account, actual earnings on investments of those contributions (or credits), and the effects of forfeitures of contributions (or credits) made for other employees, as well as pension plan administrative costs, that are allocated to the employee's account.
Discount Rate:	<p>The single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the total of the following:</p> <ol style="list-style-type: none">1. The actuarial present value of benefit payments projected to be made in future periods in which (a) the amount of the pension Plan's Fiduciary Net Position is projected (under the requirements of Statement 67) to be greater than the benefit payments that are projected to be made in that period and (b) pension plan assets up to that point are expected to be invested using a strategy to achieve the long-term expected rate of return, calculated using the long-term expected rate of return on pension plan investments.2. The actuarial present value of projected benefit payments not included in (1), calculated using the municipal bond rate.
Entry Age Actuarial Cost Method:	A method under which the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age(s). The portion of this actuarial present value allocated to a valuation year is called the normal cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is called the actuarial accrued liability.
Inactive Employees:	Terminated individuals that have accumulated benefits but are not yet receiving them, and retirees or their beneficiaries currently receiving benefits.
Multiple-Employer Defined Benefit Pension Plan:	A defined benefit pension plan that is used to provide pensions to the employees of more than one employer.
Net Pension Liability (NPL):	The liability of employers and nonemployer contributing entities to employees for benefits provided through a defined benefit pension plan.

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Other Postemployment Benefits:	All postemployment benefits other than retirement income (such as death benefits, life insurance, disability, and long-term care) that are provided separately from a pension plan, as well as postemployment healthcare benefits, regardless of the manner in which they are provided. Other postemployment benefits do not include termination benefits.
Pension Plans:	Arrangements through which pensions are determined, assets dedicated for pensions are accumulated and managed and benefits are paid as they come due.
Pensions:	Retirement income and, if provided through a pension plan, postemployment benefits other than retirement income (such as death benefits, life insurance, and disability benefits). Pensions do not include postemployment healthcare benefits and termination benefits.
Plan Members:	Individuals that are covered under the terms of a pension plan. Plan members generally include (1) employees in active service (active plan members) and (2) terminated employees who have accumulated benefits but are not yet receiving them and retirees or their beneficiaries currently receiving benefits (inactive plan members).
Postemployment:	The period after employment.
Postemployment Benefit Changes:	Adjustments to the pension of an inactive employee.
Postemployment Healthcare Benefits:	Medical, dental, vision, and other health-related benefits paid subsequent to the termination of employment.
Projected Benefit Payments:	All benefits estimated to be payable through the pension plan to current active and inactive employees as a result of their past service and their expected future service.
Public Employee Retirement System:	A special-purpose government that administers one or more pension plans; also may administer other types of employee benefit plans, including postemployment healthcare plans and deferred compensation plans.
Real Rate of Return:	The rate of return on an investment after adjustment to eliminate inflation.
Service Costs:	The portions of the actuarial present value of projected benefit payments that are attributed to valuation years.
Single-Employer Defined Benefit Pension Plan (Single-Employer Pension Plan):	A defined benefit pension plan that is used to provide pensions to employees of only one employer.
Termination Benefits:	Inducements offered by employers to active employees to hasten the termination of services, or payments made in consequence of the early termination of services. Termination benefits include early-retirement incentives, severance benefits, and other termination-related benefits.
Total Pension Liability (TPL):	The portion of the actuarial present value of projected benefit payments that is attributed to past periods of employee service in conformity with the requirements of Statement 67.



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Via Email

April 11, 2023

Ms. Lisa Johnson
Assistant Chief Executive Officer
Alameda County Employees' Retirement Association
475 14th Street, Suite 1000
Oakland, CA 94612-1900

**Re: Alameda County Employees' Retirement Association (ACERA)
Addendum to the Governmental Accounting Standards Board (GASB) Statement 67
Actuarial Valuation as of December 31, 2022**

Dear Lisa:

In our draft Governmental Accounting Standards (GASB) Statement 67 actuarial valuation report dated April 10, 2023, we provided the Net Pension Liabilities (NPL) and other elements that are required for completing the Plan's financial reporting requirements under GASB Statement 67. In this letter, we have provided as an addendum to that report two additional schedules that the American Institute of Certified Public Accountants (AICPA) State and Local Government Expert Panel recommends be prepared by the Retirement Association's actuary (Segal) for use in allocating the NPL and pension expense by employer, before we issue the full companion report for the employer's financial reporting for ACERA under GASB Statement 68.

The attached schedules have been developed based on the assumptions, methods, and results shown in our report dated April 10, 2023. Exhibits A1 and A2 detail the method used for allocating the NPL and they provide the NPL amounts allocated to the seven employers at ACERA as of December 31, 2021 and December 31, 2022, respectively.

In preparing the addendum letter for the results as of December 31, 2021, we applied the breakdown of General and Safety employer and employee contributions provided by ACERA before reflecting manual adjustments that increased the County's General employer and General employee contributions by about \$58,000 but decreased the County's Safety employer and Safety employee contributions by the same amount, as agreed to by ACERA. Those adjustments that were not deemed material and therefore not used in preparing the December 31, 2021 addendum letter after consultation with ACERA are now reflected as part of the December 31, 2022 addendum letter.

Special Note Related to Allocation of NPL for the non-OPEB SRBR

The Alameda County Office of Education (ACOE) made a lump sum contribution of \$750,000 in 2019 to partially pay off their UAAL. That lump sum is greater than the amount that ACOE would have to make on an installment basis over 20 years. In order to have a more level allocation of the NPL to ACOE, ACERA approved an approach outlined in our March 2, 2020 letter to determine ACOE's proportionate share of the non-OPEB SRBR NPL by using ACOE's required contributions determined as if they had not made the additional lump sum contribution in 2019. We have continued to use that method in determining ACOE's proportionate share of the non-OPEB SRBR NPL in this letter.

The County made voluntary County Safety contributions of \$800 million on around June 29, 2021 to reduce their Safety UAAL and associated contribution rates. The Livermore Area Recreation and Park District (LARPDP) also made voluntary LARPDP General contributions of \$12.611 million on around June 29, 2021 to reduce their General UAAL and associated contribution rates. We amortized the voluntary County Safety UAAL contributions over 13 years effective FY 21-22 to provide a UAAL contribution rate credit for County Safety and the voluntary LARPDP General UAAL contributions over 16 years effective FY 21-22 to provide a UAAL contribution rate credit for LARPDP General. Similar to the approach approved by ACERA as described in the previous paragraph for determining ACOE's proportionate share of the non-OPEB SRBR NPL, we have determined the County Safety and LARPDP's proportionate share of the non-OPEB SRBR NPL by using the County Safety and LARPDP's required contributions, respectively, as if they had not made the voluntary UAAL contributions in 2021.

Exhibit B summarizes the allocated NPL, deferred outflows and inflows of resources, and pension expense by the seven employers. Additional information required under GASB Statement 68 that each of the employers will need to disclose will be provided later in a separate report.

These calculations were performed under the supervision of Eva Yum, FSA, MAAA, Enrolled Actuary. We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

Please let us know if you have any questions.

Sincerely,

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

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

ST/
Enclosures

Schedule of Employer Allocations as of December 31, 2021

Actual Employer Contributions by Employer and Membership Class January 1, 2021 to December 31, 2021

Employer	General Members, Excluding ACOE and LARP		General ACOE Members Only		General LARP Members Only		All General Members Combined	
	Contributions	Percentage ¹	Contributions	Percentage	Contributions	Percentage	Contributions	Percentage
Alameda County	\$139,147,479	65.206%	\$0	0.000%	\$0	0.000%	\$139,147,479	61.251%
Health System	59,357,100	27.815%	0	0.000%	0	0.000%	59,357,100	26.128%
Superior Court	12,018,963	5.632%	0	0.000%	0	0.000%	12,018,963	5.290%
First 5	1,477,674	0.692%	0	0.000%	0	0.000%	1,477,674	0.650%
Housing Authority	1,398,011	0.655%	0	0.000%	0	0.000%	1,398,011	0.615%
LARP	0	0.000%	0	0.000%	13,692,329	100.000%	13,692,329	6.027%
ACOE	0	0.000%	89,000	100.000%	0	0.000%	89,000	0.039%
Total for all Employers	\$213,399,227	100.000%	\$89,000	100.000%	\$13,692,329	100.000%	\$227,180,556	100.000%

¹ The unrounded percentages are used in the allocation of the NPL amongst the employers.

Schedule of Employer Allocations as of December 31, 2021

Actual Employer Contributions by Employer and Membership Class January 1, 2021 to December 31, 2021

Employer	Safety Members		Total		Adjusted Total ^{1,2,3}	
	Contributions	Percentage	Contributions	Percentage	Contributions	Percentage ⁴
Alameda County	\$889,395,284	100.000%	\$1,028,542,763	92.117%	\$256,292,148 ¹	77.170%
Health System	0	0.000%	59,357,100	5.316%	59,357,100	17.872%
Superior Court	0	0.000%	12,018,963	1.076%	12,018,963	3.619%
First 5	0	0.000%	1,477,674	0.132%	1,477,674	0.445%
Housing Authority	0	0.000%	1,398,011	0.125%	1,398,011	0.421%
LARPD	0	0.000%	13,692,329	1.226%	1,422,470 ²	0.428%
ACOE	0	0.000%	89,000	0.008%	148,854 ³	0.045%
Total for all Employers	\$889,395,284	100.000%	\$1,116,575,840	100.000%	\$332,115,220	100.000%

¹ This includes \$139,147,479 of County General actual employer contributions and \$117,144,669 of County Safety adjusted employer contributions used for purposes of determining the proportionate share of the non-OPEB SRBR NPL for the County. The County made voluntary County Safety contributions of \$800,000,000 on around June 29, 2021 to reduce their Safety UAAL and associated contribution rates. We have amortized the voluntary County Safety UAAL contributions to provide a UAAL contribution rate credit for County Safety over 13 years effective FY 21-22. Similar to the approach approved by ACERA for ACOE to determine ACOE's proportionate share of the non-OPEB SRBR NPL, we determined the County Safety's proportionate share of the non-OPEB SRBR NPL by using the County Safety's actual contributions (but excluding \$800 million of voluntary UAAL contributions) made in 2021 in the amount of \$89,395,284 plus the contribution credit applied in 2021 in the amount of \$27,749,385 for a total adjusted County Safety contribution of \$117,144,669.

² LARPD made voluntary LARPD General contributions of \$12,611,250 on around June 29, 2021 to reduce their General UAAL and associated contribution rates. We have amortized the voluntary LARPD General UAAL contributions to provide a UAAL contribution rate credit for LARPD General over 16 years effective FY 21-22. Similar to the approach approved by ACERA for ACOE to determine ACOE's proportionate share of the non-OPEB SRBR NPL, we determined LARPD's proportionate share of the non-OPEB SRBR NPL by using LARPD's actual contributions (but excluding \$12,611,250 of voluntary UAAL contributions) made in 2021 in the amount of \$1,081,079 plus the contribution credit applied in 2021 in the amount of \$341,391 for a total adjusted LARPD contribution of \$1,422,470.

³ ACOE made a lump sum contribution of \$750,000 in 2019 to partially pay off their UAAL. That lump sum is greater than the amount that ACOE would have to make on an installment basis over 20 years. In order to have a more level allocation of the NPL to ACOE, ACERA approved an approach outlined in our March 2, 2020 letter to determine ACOE's proportionate share of the non-OPEB SRBR NPL by using ACOE's required contributions determined in our December 31, 2019 valuation in the amount of \$89,000 based on an April 1, 2021 payment date plus the amortization of the remaining balance of the original \$750,000 lump sum amount (an amount of \$59,854 which represents the additional UAAL contribution ACOE would have been required to pay had they not made the additional lump sum contribution in 2019).

⁴ The unrounded percentages are used in the allocation of the NPL amongst the employers.

Schedule of Employer Allocations as of December 31, 2021

Allocation of December 31, 2021 Net Pension Liability

Employer	General NPL, Excluding ACOE and LARPD (Excl. non-OPEB SRBR NPL)		General ACOE NPL Only (Excl. non-OPEB SRBR NPL)		General LARPD NPL Only (Excl. non-OPEB SRBR NPL)		Total General NPL (Excl. non-OPEB SRBR NPL)	
	NPL	Percentage ¹	NPL	Percentage ¹	NPL	Percentage ¹	NPL	Percentage
Alameda County	\$574,956,681	65.206%	\$0	0.000%	\$0	0.000%	\$574,956,681	65.532%
Health System	245,263,238	27.815%	0	0.000%	0	0.000%	245,263,238	27.954%
Superior Court	49,662,295	5.632%	0	0.000%	0	0.000%	49,662,295	5.660%
First 5	6,105,742	0.692%	0	0.000%	0	0.000%	6,105,742	0.696%
Housing Authority	5,776,574	0.655%	0	0.000%	0	0.000%	5,776,574	0.658%
LARPD	0	0.000%	0	0.000%	(5,048,710)	100.000%	(5,048,710)	(0.575)%
ACOE	0	0.000%	657,384	100.000%	0	0.000%	657,384	0.075%
Total for all Employers	\$881,764,530	100.000%	\$657,384	100.000%	\$(5,048,710)	100.000%	\$877,373,204	100.000%

Allocation of December 31, 2021 Net Pension Liability

Employer	Safety NPL (Excl. non-OPEB SRBR NPL)		General & Safety Total (Excl. non-OPEB SRBR NPL)		General & Safety Non-OPEB SRBR NPL		Total	
	NPL	Percentage ¹	NPL	Percentage	NPL	Percentage ²	NPL	Percentage
Alameda County	\$(123,928,424)	100.000%	\$451,028,257	59.863%	\$29,974,467	77.170%	\$481,002,724	60.710%
Health System	0	0.000%	245,263,238	32.552%	6,942,068	17.872%	252,205,306	31.833%
Superior Court	0	0.000%	49,662,295	6.591%	1,405,669	3.619%	51,067,964	6.446%
First 5	0	0.000%	6,105,742	0.810%	172,820	0.445%	6,278,562	0.792%
Housing Authority	0	0.000%	5,776,574	0.767%	163,503	0.421%	5,940,077	0.750%
LARPD	0	0.000%	(5,048,710)	(0.670)%	166,364	0.428%	(4,882,346)	(0.616)%
ACOE	0	0.000%	657,384	0.087%	17,409	0.045%	674,793	0.085%
Total for all Employers	\$(123,928,424)	100.000%	\$753,444,780	100.000%	\$38,842,300	100.000%	\$792,287,080	100.000%

¹ Allocated based on the actual employer contributions within each membership class.

² Allocated based on the actual employer contributions in total, with an adjustment to reflect the total annual UAAL contribution ACOE would have been required to make of \$148,854 in 2021 had they not made the additional contribution in 2019 to partially pay off their UAAL. This approach is outlined in our March 2, 2020 letter and is approved by ACERA. Following this approach, there is an adjustment to reflect the total annual contribution County Safety would have been required to make of \$117,144,669 in 2021 had they not made the voluntary County Safety UAAL contribution in 2021. There is also an adjustment to reflect the total annual contribution LARPD would have been required to make of \$1,422,470 in 2021 had they not made the voluntary LARPD General UAAL contribution in 2021.

Notes:

Based on the January 1, 2021 through December 31, 2021 employer contributions as provided by ACERA.

Pension (excluding non-OPEB SRBR)

The Net Pension Liability (NPL) for each membership class is the Total Pension Liability (TPL) minus the Plan's Fiduciary Net Position (plan assets). The Total Pension Liability for each membership class is obtained from internal valuation results.

As of December 31, 2021, the total Plan's Fiduciary Net Position for Pension (excluding non-OPEB SRBR) is \$686.1 million **higher** than the valuation value of assets as of the same date. Out of the \$686.1 million, \$565.9 million is due to the inclusion of deferred market **gains** and \$120.2 million is due to inclusion of the Contingency Reserve in the total Plan's Fiduciary Net Position. The Plan's Fiduciary Net Position for Pension for each membership class is obtained as follows:

- The deferred market gains and losses accumulated up to June 30, 2021 are allocated to each membership class proportionately based on the valuation value of assets for each membership class relative to the total valuation value of assets for all membership classes, both excluding the valuation value of assets for the County Safety UAAL Advance Reserve and the LARPD General UAAL Advance Reserve.¹
- The deferred market gains and losses accumulated after June 30, 2021 are allocated to each membership class proportionately based on the valuation value of asset for each membership class relative to the total valuation value of assets for all membership classes, both including the valuation value of assets for the County Safety UAAL Advance Reserve and the LARPD General UAAL Advance Reserve.
- The Contingency Reserve is allocated to each membership class proportionately based on the valuation value of asset for each membership class relative to the total valuation value of assets for all membership classes, both including the valuation value of assets for the County Safety UAAL Advance Reserve and the LARPD General UAAL Advance Reserve.

The total Plan's Fiduciary Net Position for pension as of December 31, 2021 includes the net fair value of assets less SRBR assets. The SRBR assets include the SRBR-OPEB reserve (after reducing the reserve by the SRBR implicit subsidy transfer), the 401(h) reserve, and the Non-OPEB SRBR reserve, plus a proportionate share of one half of the deferred market gains (after adjustment to replenish the balance in the Contingency Reserve, if applicable) commensurate with the size of those SRBR reserves and 401(h) reserve to valuation and 401(h) reserves.

The General ACOE membership class has only one employer (ACOE), so all of the NPL for General ACOE is allocated to the ACOE. The General LARPD membership class has only one employer (LARPD), so all of the NPL for General LARPD is allocated to LARPD. The Safety membership class also has only one employer (County), so all of the NPL for Safety is allocated to the County.

For General excluding ACOE and LARPD, the NPL is allocated based on the actual employer contributions within the General membership class excluding any contributions made by ACOE and LARPD. The steps used for the allocation are as follows:

- First calculate the ratio of the employer's contributions to the total contributions for the membership class.
- This ratio is multiplied by the NPL for the membership class to determine the employer's proportionate share of the NPL for the membership class.

Non-OPEB SRBR

The non-OPEB SRBR assets include the Non-OPEB SRBR reserve, plus a proportionate share of one half of the deferred market gains (after adjustment to replenish the balance in the Contingency Reserve, if applicable) commensurate with the size of the non-OPEB to total SRBR reserves.

¹ Based on the Board's funding policy and interest crediting policy, the County Safety UAAL Advance Reserve and LARPD General Advance Reserve are subject to a separate 5-year asset smoothing schedule that excludes the allocation of any deferred investment gains or losses accumulated up to June 30, 2021 for interest crediting purposes.

For non-OPEB SRBR, the NPL is allocated based on the actual employer contributions in total.¹ The steps used for the allocation are as follows:

- First calculate the ratio of the employer's total contributions to the total contributions for all employers.
- This ratio is multiplied by the NPL for the non-OPEB SRBR to determine the employer's proportionate share of the NPL for the non-OPEB SRBR.

Total

The employer's total allocated NPL is the sum of its allocated pension NPL from each membership class and the non-OPEB SRBR. The proportionate share of the total plan NPL is then the ratio of the employer's total allocated NPL to the total NPL of all employers.

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¹ Includes an adjustment to reflect the total annual UAAL contribution ACOE would have been required to make of \$148,854 in 2021 had they not made the additional contribution to partially pay off their UAAL. This approach is outlined in our March 2, 2020 letter and is approved by ACERA. Following this approach, there is an adjustment to reflect the total annual contribution County Safety would have been required to make of \$117,144,669 in 2021 had they not made the voluntary County Safety UAAL contribution in 2021. There is also an adjustment to reflect the total annual contribution LARPD would have been required to make of \$1,422,470 in 2021 had they not made the voluntary LARPD General UAAL contribution in 2021.

Schedule of Employer Allocations as of December 31, 2022

Actual Employer Contributions by Employer and Membership Class January 1, 2022 to December 31, 2022

Employer	General Members, Excluding ACOE and LARP		General ACOE Members Only		General LARP Members Only		All General Members Combined	
	Contributions	Percentage ¹	Contributions	Percentage	Contributions	Percentage	Contributions	Percentage
Alameda County	\$151,823,933	65.256%	\$0	0.000%	\$0	0.000%	\$151,823,933	65.082%
Health System	64,478,768	27.714%	0	0.000%	0	0.000%	64,478,768	27.640%
Superior Court	13,151,755	5.653%	0	0.000%	0	0.000%	13,151,755	5.638%
First 5	1,695,921	0.729%	0	0.000%	0	0.000%	1,695,921	0.727%
Housing Authority	1,508,274	0.648%	0	0.000%	0	0.000%	1,508,274	0.647%
LARP	0	0.000%	0	0.000%	519,392	100.000%	519,392	0.223%
ACOE	0	0.000%	100,000	100.000%	0	0.000%	100,000	0.043%
Total for all Employers	\$232,658,651	100.000%	\$100,000	100.000%	\$519,392	100.000%	\$233,278,043	100.000%

¹ The unrounded percentages are used in the allocation of the NPL amongst the employers.

Schedule of Employer Allocations as of December 31, 2022

Actual Employer Contributions by Employer and Membership Class January 1, 2022 to December 31, 2022

Employer	Safety Members		Total		Adjusted Total ^{1,2,3}	
	Contributions	Percentage	Contributions	Percentage	Contributions	Percentage ⁴
Alameda County	\$48,368,659	100.000%	\$200,192,592	71.079%	\$283,811,533 ¹	77.476%
Health System	0	0.000%	64,478,768	22.893%	64,478,768	17.602%
Superior Court	0	0.000%	13,151,755	4.670%	13,151,755	3.590%
First 5	0	0.000%	1,695,921	0.602%	1,695,921	0.463%
Housing Authority	0	0.000%	1,508,274	0.536%	1,508,274	0.412%
LARPD	0	0.000%	519,392	0.184%	1,514,139 ²	0.413%
ACOE	0	0.000%	100,000	0.036%	159,854 ³	0.044%
Total for all Employers	\$48,368,659	100.000%	\$281,646,702	100.000%	\$366,320,244	100.000%

¹ This includes \$151,823,933 of County General actual employer contributions and \$131,987,600 of County Safety adjusted employer contributions used for purposes of determining the proportionate share of the non-OPEB SRBR NPL for the County. The County made voluntary County Safety contributions of \$800,000,000 on around June 29, 2021 to reduce their Safety UAAL and associated contribution rates. We have amortized the voluntary County Safety UAAL contributions to provide a UAAL contribution rate credit for County Safety over 13 years effective FY 21-22. Similar to the approach approved by ACERA for ACOE to determine ACOE's proportionate share of the non-OPEB SRBR NPL, we determined the County Safety's proportionate share of the non-OPEB SRBR NPL by using the County Safety's actual contributions made in 2022 in the amount of \$48,368,659 plus the contribution credit applied in 2022 in the amount of \$83,618,941 for a total adjusted County Safety contribution of \$131,987,600.

² LARPD made voluntary LARPD General contributions of \$12,611,250 on around June 29, 2021 to reduce their General UAAL and associated contribution rates. We have amortized the voluntary LARPD General UAAL contributions to provide a UAAL contribution rate credit for LARPD General over 16 years effective FY 21-22. Similar to the approach approved by ACERA for ACOE to determine ACOE's proportionate share of the non-OPEB SRBR NPL, we determined LARPD's proportionate share of the non-OPEB SRBR NPL by using LARPD's actual contributions made in 2022 in the amount of \$519,392 plus the contribution credit applied in 2022 in the amount of \$994,747 for a total adjusted LARPD contribution of \$1,514,139.

³ ACOE made a lump sum contribution of \$750,000 in 2019 to partially pay off their UAAL. That lump sum is greater than the amount that ACOE would have to make on an installment basis over 20 years. In order to have a more level allocation of the NPL to ACOE, ACERA approved an approach outlined in our March 2, 2020 letter to determine ACOE's proportionate share of the non-OPEB SRBR NPL by using ACOE's required contributions determined in our December 31, 2020 valuation in the amount of \$100,000 based on an April 1, 2022 payment date plus the amortization of the remaining balance of the original \$750,000 lump sum amount (an amount of \$59,854 which represents the additional UAAL contribution ACOE would have been required to pay had they not made the additional lump sum contribution in 2019).

⁴ The unrounded percentages are used in the allocation of the NPL amongst the employers.

Schedule of Employer Allocations as of December 31, 2022

Allocation of December 31, 2022 Net Pension Liability

Employer	General NPL, Excluding ACOE and LARPD (Excl. non-OPEB SRBR NPL)		General ACOE NPL Only (Excl. non-OPEB SRBR NPL)		General LARPD NPL Only (Excl. non-OPEB SRBR NPL)		Total General NPL (Excl. non-OPEB SRBR NPL)	
	NPL	Percentage ¹	NPL	Percentage ¹	NPL	Percentage ¹	NPL	Percentage
Alameda County	\$1,168,107,079	65.256%	\$0	0.000%	\$0	0.000%	\$1,168,107,079	65.022%
Health System	496,088,488	27.714%	0	0.000%	0	0.000%	496,088,488	27.614%
Superior Court	101,187,328	5.653%	0	0.000%	0	0.000%	101,187,328	5.632%
First 5	13,048,123	0.729%	0	0.000%	0	0.000%	13,048,123	0.726%
Housing Authority	11,604,399	0.648%	0	0.000%	0	0.000%	11,604,399	0.646%
LARPD	0	0.000%	0	0.000%	5,231,149	100.000%	5,231,149	0.291%
ACOE	0	0.000%	1,241,602	100.000%	0	0.000%	1,241,602	0.069%
Total for all Employers	\$1,790,035,417	100.000%	\$1,241,602	100.000%	\$5,231,149	100.000%	\$1,796,508,168	100.000%

Allocation of December 31, 2022 Net Pension Liability

Employer	Safety NPL (Excl. non-OPEB SRBR NPL)		General & Safety Total (Excl. non-OPEB SRBR NPL)		General & Safety Non-OPEB SRBR NPL		Total	
	NPL	Percentage ¹	NPL	Percentage	NPL	Percentage ²	NPL	Percentage
Alameda County	\$341,190,621	100.000%	\$1,509,297,700	70.604%	\$72,487,690	77.476%	\$1,581,785,390	70.892%
Health System	0	0.000%	496,088,488	23.207%	16,468,383	17.602%	512,556,871	22.972%
Superior Court	0	0.000%	101,187,328	4.733%	3,359,061	3.590%	104,546,389	4.686%
First 5	0	0.000%	13,048,123	0.610%	433,152	0.463%	13,481,275	0.604%
Housing Authority	0	0.000%	11,604,399	0.543%	385,225	0.412%	11,989,624	0.537%
LARPD	0	0.000%	5,231,149	0.245%	386,723	0.413%	5,617,872	0.252%
ACOE	0	0.000%	1,241,602	0.058%	40,828	0.044%	1,282,430	0.057%
Total for all Employers	\$341,190,621	100.000%	\$2,137,698,789	100.000%	\$93,561,062	100.000%	\$2,231,259,851	100.000%

¹ Allocated based on the actual employer contributions within each membership class.

² Allocated based on the actual employer contributions in total, with an adjustment to reflect the total annual UAAL contribution ACOE would have been required to make of \$159,854 in 2022 had they not made the additional contribution in 2019 to partially pay off their UAAL. This approach is outlined in our March 2, 2020 letter and is approved by ACERA. Following this approach, there is an adjustment to reflect the total annual contribution County Safety would have been required to make of \$131,987,600 in 2022 had they not made the voluntary County Safety UAAL contribution in 2021. There is also an adjustment to reflect the total annual contribution LARPD would have been required to make of \$1,514,139 in 2022 had they not made the voluntary LARPD General UAAL contribution in 2021.

Notes:

Based on the January 1, 2022 through December 31, 2022 employer contributions as provided by ACERA.

Pension (excluding non-OPEB SRBR)

The Net Pension Liability (NPL) for each membership class is the Total Pension Liability (TPL) minus the Plan's Fiduciary Net Position (plan assets). The Total Pension Liability for each membership class is obtained from internal valuation results.

As of December 31, 2022, the total Plan's Fiduciary Net Position for Pension (excluding non-OPEB SRBR) is \$716.5 million **lower** than the valuation value of assets as of the same date, due to the inclusion of deferred market **losses**. The Plan's Fiduciary Net Position for Pension for each membership class is obtained as follows:

- The deferred market gains and losses accumulated up to June 30, 2021 are allocated to each membership class proportionately based on the valuation value of assets for each membership class relative to the total valuation value of assets for all membership classes, both excluding the valuation value of assets for the County Safety UAAL Advance Reserve and the LARPD General UAAL Advance Reserve.¹
- The deferred market gains and losses accumulated after June 30, 2021 are allocated to each membership class proportionately based on the valuation value of asset for each membership class relative to the total valuation value of assets for all membership classes, both including the valuation value of assets for the County Safety UAAL Advance Reserve and the LARPD General UAAL Advance Reserve.
- The Contingency Reserve, if any, is allocated to each membership class proportionately based on the valuation value of asset for each membership class relative to the total valuation value of assets for all membership classes, both including the valuation value of assets for the County Safety UAAL Advance Reserve and the LARPD General UAAL Advance Reserve.

The total Plan's Fiduciary Net Position for pension as of December 31, 2022 includes the net fair value of assets less SRBR assets. The SRBR assets include the SRBR-OPEB reserve (after reducing the reserve by the SRBR implicit subsidy transfer), the 401(h) reserve, and the Non-OPEB SRBR reserve, minus a proportionate share of the deferred market losses commensurate with the size of those SRBR reserves and 401(h) reserve to valuation and 401(h) reserves.

The General ACOE membership class has only one employer (ACOE), so all of the NPL for General ACOE is allocated to the ACOE. The General LARPD membership class has only one employer (LARPD), so all of the NPL for General LARPD is allocated to LARPD. The Safety membership class also has only one employer (County), so all of the NPL for Safety is allocated to the County.

For General excluding ACOE and LARPD, the NPL is allocated based on the actual employer contributions within the General membership class excluding any contributions made by ACOE and LARPD. The steps used for the allocation are as follows:

- First calculate the ratio of the employer's contributions to the total contributions for the membership class.
- This ratio is multiplied by the NPL for the membership class to determine the employer's proportionate share of the NPL for the membership class.

Non-OPEB SRBR

The non-OPEB SRBR assets include the non-OPEB SRBR reserve, minus a proportionate share of the deferred market losses commensurate with the size of the non-OPEB to total SRBR reserves.

¹ Based on the Board's funding policy and interest crediting policy, the County Safety UAAL Advance Reserve and LARPD General Advance Reserve are subject to a separate 5-year asset smoothing schedule that excludes the allocation of any deferred investment gains or losses accumulated up to June 30, 2021 for interest crediting purposes.

For non-OPEB SRBR, the NPL is allocated based on the actual employer contributions in total.¹ The steps used for the allocation are as follows:

- First calculate the ratio of the employer's total contributions to the total contributions for all employers.
- This ratio is multiplied by the NPL for the non-OPEB SRBR to determine the employer's proportionate share of the NPL for the non-OPEB SRBR.

Total

The employer's total allocated NPL is the sum of its allocated pension NPL from each membership class and the non-OPEB SRBR. The proportionate share of the total plan NPL is then the ratio of the employer's total allocated NPL to the total NPL of all employers.

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¹ Includes an adjustment to reflect the total annual UAAL contribution ACOE would have been required to make of \$159,854 in 2022 had they not made the additional contribution to partially pay off their UAAL. This approach is outlined in our March 2, 2020 letter and is approved by ACERA. Following this approach, there is an adjustment to reflect the total annual contribution County Safety would have been required to make of \$131,987,600 in 2022 had they not made the voluntary County Safety UAAL contribution in 2021. There is also an adjustment to reflect the total annual contribution LARPD would have been required to make of \$1,514,139 in 2022 had they not made the voluntary LARPD General UAAL contribution in 2021.

Schedule of Pension Amounts by Employer as of December 31, 2022

Employer	Net Pension Liability	Deferred Outflows of Resources				Total Deferred Outflows of Resources
		Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	
Alameda County	\$1,581,785,390	\$51,616,393	\$510,684,110	\$107,621,239	\$6,331,747	\$676,253,489
Health System	512,556,871	13,081,204	111,944,639	27,976,705	4,569,214	157,571,762
Superior Court	104,546,389	2,668,177	22,833,384	5,706,418	2,925,105	34,133,084
First 5	13,481,275	344,062	2,944,369	735,843	974,936	4,999,210
Housing Authority	11,989,624	305,993	2,618,586	654,425	226,256	3,805,260
LARPD	5,617,872	1,363,341	4,965,270	683,344	29,656	7,041,611
ACOE	<u>1,282,430</u>	<u>282,902</u>	<u>214,759</u>	<u>21,721</u>	<u>10,345</u>	<u>529,727</u>
Total for all Employers	\$2,231,259,851	\$69,662,072	\$656,205,117	\$143,399,695	\$15,067,259	\$884,334,143

Schedule of Pension Amounts by Employer as of December 31, 2022

Employer	Deferred Inflows of Resources				Pension Expense			
	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Proportionate Share of Plan Pension Expense	Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Employer Pension Expense
Alameda County	\$24,013,009	\$0	\$32,369,540	\$0	\$56,382,549	\$334,489,559	\$2,532,862	\$337,022,421
Health System	4,773,932	0	7,353,993	9,546,476	21,674,401	90,887,830	(2,069,217)	88,818,613
Superior Court	973,740	0	1,499,996	5,072,327	7,546,063	18,538,420	(689,406)	17,849,014
First 5	125,564	0	193,425	0	318,989	2,390,533	400,060	2,790,593
Housing Authority	111,670	0	172,023	387,041	670,734	2,126,030	(155,426)	1,970,604
LARPD	1,984,200	0	172,692	60,215	2,217,107	2,422,441	(13,496)	2,408,945
ACOE	<u>2,948</u>	<u>0</u>	<u>18,232</u>	<u>1,200</u>	<u>22,380</u>	<u>415,853</u>	<u>(5,377)</u>	<u>410,476</u>
Total for all Employers	\$31,985,063	\$0	\$41,779,901	\$15,067,259	\$88,832,223	\$451,270,666	\$0	\$451,270,666

Schedule of Pension Amounts by Employer as of December 31, 2022

Notes:

Amounts shown in this exhibit were allocated first by employer within each of the four pension plan membership classes (excl. non-OPEB SRBR) and within the non-OPEB SRBR based on the Employer Allocation Percentage calculated in Exhibit A2, and added together to produce the results by employer in total.

In determining the pension expense:

- Any differences between projected and actual investment earnings on pension plan investments are recognized over a period of five years beginning with the year in which they occur.
- Current-period (i.e., 2022) differences between expected and actual experience and changes of assumptions are recognized over the average of the expected remaining service lives of all employees that are provided with pensions through ACERA determined as of December 31, 2021 (the beginning of the measurement period ending December 31, 2022) and is 4.98 years.
- Prior-period differences between expected and actual experience and changes of assumptions are continued to be recognized based on the expected remaining service lives of all employees calculated as of those prior measurement dates.

The average of the expected remaining service lives of all employees was determined by:

- Calculating each active employee's expected remaining service life as the present value of \$1 per year of future service at zero percent interest.
- Setting the remaining service life to zero for each nonactive or retired member.
- Dividing the sum of the above amounts by the total number of active employees and nonactive and retired members.

There was an increase in the total employer pension expense from \$135.2 million calculated last year to \$451.3 million calculated this year. The primary cause of the increase is the recognition of an expense of \$292.6 million in this year's pension expense that is associated with investment income on the Plan's Fiduciary Net Position that is below the assumed earnings (at 7.00%) for the year ending December 31, 2022 for a loss of \$1,463 million.



MEMORANDUM TO THE AUDIT COMMITTEE

DATE: May 18, 2023

TO: Members of the Audit Committee

FROM: Erica Haywood, Fiscal Services Officer *EH*

SUBJECT: Governmental Accounting Standards Board (GASB) Statement No. 67 and Statement No. 74 Actuarial Valuations and Addendums as of December 31, 2022

Executive Summary

Staff has completed its review and evaluation of the GASB Statement No. 67 and Statement No. 74 Actuarial Valuations and Addendums¹ as of December 31, 2022. Staff and ACERA's actuary, Segal Consulting, conducted presentations of this information at the following meetings:

- April 20, 2023, Audit Committee meeting; and
- April 26, 2023, Participating Employers' Meeting

Having no need for further review, staff recommends the Board of Retirement consider a motion to adopt the GASB Statement No. 67 and Statement No. 74 Actuarial Valuations and Addendums as of December 31, 2022.

Recommendation

Staff recommends that the Audit Committee recommend that the Board of Retirement adopt the GASB Statement No. 67 and Statement No. 74 Actuarial Valuations and Addendums as of December 31, 2022.

Attachments:

Governmental Accounting Standards Board (GASB) Statement No. 67 and Statement No. 74 Actuarial Valuations and Addendums as of December 31, 2022

¹The addendums contain additional schedules recommended by the American Institute of Certified Public Accountants (AICPA) for use in allocating the Net Pension Liability (NPL) and the Net OPEB Liability (NOL) by employer, before issuing the full companion reports for the employers' financial reporting under GASB Statement No. 68 and Statement No. 75.



Alameda County Employees'
Retirement Association (ACERA)

**Governmental Accounting Standards Board
(GASB) Statement 74 Actuarial Valuation of
the Benefits Provided by the Supplemental
Retiree Benefits Reserve
Other Postemployment Benefits (OPEB)**

As of December 31, 2022

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This report has been prepared at the request of the Board of Retirement to assist in administering the Fund. This valuation report may not otherwise be copied or reproduced in any form without the consent of the Board of Retirement and may only be provided to other parties in its entirety, unless expressly authorized by Segal. The measurements shown in this actuarial valuation may not be applicable for other purposes.

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Segal



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April 10, 2023

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

Dear Board Members:

We are pleased to submit this Governmental Accounting Standards Board (GASB) Statement 74 Actuarial Valuation as of December 31, 2022. It contains various information that will need to be disclosed in order to comply with GASB 74.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist in administering the Association. The census and financial information on which our calculations were based was prepared by ACERA. That assistance is gratefully acknowledged.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the health care cost, economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); changes in health care trend, and changes in retiree group benefits program provisions or applicable law. Retiree group benefits models necessarily rely on the use of approximations and estimates, and are sensitive to changes in these approximations and estimates. Small variations in these approximations and estimates may lead to significant changes in actuarial measurements. The scope of the assignment did not include performing an analysis of the potential change of such future measurements except where noted.

The actuarial calculations were completed under the supervision of Mary Kirby, FSA, FCA, MAAA, and Andy Yeung ASA, MAAA, FCA, Enrolled Actuary. We are members of the American Academy of Actuaries and we collectively meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in the actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and expectations for the Association.

Board of Retirement
April 10, 2023

We look forward to reviewing this report with you and to answering any questions.

Sincerely,

Segal

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

Mary Kirby, FSA, FCA, MAAA
Senior Vice President and Consulting Actuary

VZP/jl

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Section 1: Actuarial Valuation Summary

Purpose and basis

This report has been prepared by Segal to present certain disclosure information required for “Other Postemployment Benefits (OPEB)” plans by Statement No. 74 of the Governmental Accounting Standards Board as of December 31, 2022. This valuation is based on:

- The benefit provisions of the OPEB Plan, as administered by the Board of Retirement;
- The characteristics of covered active members, inactive vested members, and retired members and beneficiaries as of November 30, 2021, provided by ACERA;
- The assets of the Plan as of December 31, 2022, provided by ACERA;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board for the December 31, 2022 valuation; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, and health care trends etc. adopted by the Board for the December 31, 2022 valuation.

General observations on GASB 74 actuarial valuation

1. The Governmental Accounting Standards Board (GASB) rules only define OPEB liability and expense for financial reporting purposes, and do not apply to contribution amounts for OPEB funding purposes. Employers and plans still develop and adopt funding policies, if applicable, under current practices.
2. 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 expected return on Plan assets as used for funding.¹ This means that the Total OPEB Liability (TOL) measure for financial reporting shown in this report is determined on the same basis as the Actuarial Accrued Liability (AAL) measure for funding.
3. The Net OPEB Liability (NOL) is equal to the difference between the TOL and the Plan’s Fiduciary Net Position. The Plan’s Fiduciary Net Position is equal to the fair value of assets. The NOL reflects all investment gains and losses as of the measurement date.

¹ See discussions on next page regarding source of funding for payment of OPEB SRBR benefits not covered by current OPEB Plan’s Fiduciary Net Position in the SRBR.

Section 1: Actuarial Valuation Summary

Highlights of the valuation

1. The NOL increased from (\$420.6) million (a surplus) as of December 31, 2021 to \$191.3 million (a liability) as of December 31, 2022 primarily as a result of unfavorable investment experience during calendar year 2022 of about \$646.5 million (for an actual market return of -33.4%² versus 7.00% assumed in the valuation). Changes in these values during the last two fiscal years ending December 31, 2022 and 2021 can be found in *Section 2, Schedule of Changes in Net OPEB Liability* on page 16.
2. As we disclosed in our December 31, 2022 pension 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 has continued to be 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 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 determination of the Total Pension Liability) that would average approximately 0.65% of assets over time. This approximated outflow was incorporated into our GASB crossover test for the pension benefits (reference: *Section 3, Projection of Pension Plan’s Fiduciary Net Position* of our GASB 67 report as of December 31, 2022), 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.

Furthermore, note (6) provided in *Section 3, Appendix A* of the GASB 67 report indicates that the present value of outflows from the 0.65% of assets over time is expected to be higher than the present values of the remaining OPEB and non-OPEB SRBR benefits that could be paid after the exhaustion of assets currently available in the SRBR.

Therefore, in developing the crossover test for the OPEB SRBR in *Section 3, Appendix A* of this report, we have only included the projected benefits to the extent that on a present value basis they are less than or equal to the OPEB assets currently available in the SRBR as any remaining OPEB SRBR benefits would be paid from future excess earnings.

² Note that the -33.4% market value investment return mentioned above for the SRBR is lower than the -11.15% investment return included in the December 31, 2022 Pension Funding Valuation for Association’s entire portfolio. The lower return for the SRBR is primarily a result of the reversal of the 50% of future excess earnings that might be allocated to the SRBR for the deferred investment gains as of December 31, 2021 to reflect future returns below 7.00% that might be allocated to the SRBR for the deferred investment losses as of December 31, 2022.

Section 1: Actuarial Valuation Summary

3. The TOL as of December 31, 2022 was determined by rolling forward the liability results used in determining the sufficiency of the SRBR to provide medical and dental subsidy benefits as of December 31, 2021. That TOL has been adjusted to reflect the health care trend assumptions recommended for the upcoming sufficiency study for the SRBR as of December 31, 2022 (reference: our draft trend letter dated March 28, 2023).
4. We have also continued the practice of adjusting the Plan's Fiduciary Net Position as of December 31, 2022 to include the \$1.115 billion set aside by the Retirement Board in the SRBR reserve to pay OPEB benefits as of December 31, 2022. This includes \$1.106 billion in the OPEB-related SRBR reserve (after reducing the reserve by the \$8.0 million SRBR implicit subsidy transfer), and \$9.0 million in the 401(h) reserve. It should be noted that as of December 31, 2022, the deferred investment loss for the entire Plan was \$794 million. Consequently, 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 \$74.0 million (which will cause the future interest crediting rate to the SRBR reserve to drop below 7.00% per year).

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Section 1: Actuarial Valuation Summary

Summary of key valuation results

Measurement Date		December 31, 2022	December 31, 2021
Disclosure elements for fiscal year ending December 31:	• Service cost ⁽¹⁾	\$33,755,489	\$33,439,903
	• Total OPEB Liability	1,232,016,820	1,203,078,101
	• Plan's Fiduciary Net Position ⁽²⁾	1,040,720,573	1,623,641,492
	• Net OPEB Liability	\$191,296,247	(\$420,563,391)
Schedule of contributions for fiscal year ending December 31:	• Actuarially determined contributions	N/A	N/A
	• Actual contributions ⁽³⁾	N/A	N/A
	• Contribution deficiency / (excess)	0	0
Demographic data for plan year ending December 31:⁽⁴⁾	• Number of retired members receiving medical benefits ⁽⁵⁾	TBD	6,763
	• Number of retired members receiving dental and vision benefits	TBD	8,058
	• Number of vested terminated members	TBD	478
	• Number of active members	TBD	11,326
Key assumptions as of December 31:	• Discount rate	7.00%	7.00%
	• Health care premium trend rates		
	Non-Medicare medical plan	Graded from 7.50% to ultimate 4.50% over 12 years	Graded from 7.50% to ultimate 4.50% over 12 years
	Medicare medical plan	Graded from 6.25% to ultimate 4.50% over 7 years	Graded from 6.50% to ultimate 4.50% over 8 years
	Dental/Vision	4.00% ⁽⁷⁾	4.00% ⁽⁶⁾
Medicare Part B	4.50%	4.50%	

⁽¹⁾ The Service Cost is based on the previous year's valuation, meaning the December 31, 2022 and December 31, 2021 measurement date values are based on the valuations as of December 31, 2021 and December 31, 2020, respectively. The December 31, 2022 service cost has been calculated using the assumptions shown in the December 31, 2021 column, and the December 31, 2021 service cost has been calculated using the following assumptions:

Key assumptions as of December 31, 2020:

Discount rate	7.00%
Health care premium trend rates	
Non-Medicare medical plan	Graded from 6.75% to ultimate 4.50% over 9 years
Medicare medical plan	Graded from 6.25% to ultimate 4.50% over 7 years
Dental/Vision	4.00%
Medicare Part B	4.50%

The first two years of trend for dental were updated to reflect the three-year rate guarantee (premiums would be fixed at the 2021 levels for 2022 and 2023). The first four years of trend for vision were updated to reflect the five-year rate guarantee (premiums would be fixed at 2021 levels for 2022, 2023, 2024 and 2025).

Section 1: Actuarial Valuation Summary

- (2) For 2022, the Plan's Fiduciary Net Position shown (\$1,040,720,573) includes the OPEB-related SRBR reserve of \$1,105,725,871 (after reducing the reserve by the SRBR implicit subsidy transfer of \$7,981,476) and 401(h) reserve (\$8,979,234), less the proportionate share of the net deferred investment loss that is commensurate with the size of the OPEB SRBR reserve (\$73,984,533). For 2021, the Plan's Fiduciary Net Position shown (\$1,623,641,492) includes the OPEB-related SRBR reserve of \$1,073,475,020 (after reducing the reserve by the SRBR implicit subsidy transfer of \$5,652,613) and 401(h) reserve (\$9,229,285), plus the proportionate share of one-half of the net deferred investment gain that is commensurate with the size of the OPEB SRBR reserve to total SRBR and 401(h) reserve to valuation and 401(h) reserve (\$540,937,187). Note that amounts may not total exactly due to rounding.
- (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) The December 31, 2021 data is used in the measurement of the TOL as of December 31, 2022. The following data as of December 31, 2020 was used in the measurement of the TOL as of December 31, 2021:

Number of retired members receiving medical benefits	6,664
Number of retired members receiving dental and vision benefits	7,906
Number of vested terminated members	451
Number of active members	11,322

The demographic data as of December 31, 2022 will be used in the sufficiency study for the SRBR as of December 31, 2022 as well as in the next year's GASB 74 valuation when we roll forward the liability from December 31, 2022 to December 31, 2023. The December 31, 2022 demographic data will be included in the final version of this report.

- (5) The retiree count excludes beneficiaries under 65 receiving an implicit subsidy.
- (6) The first year of trend for dental was updated to reflect the three-year rate guarantee (premiums would be fixed at the 2021 levels for 2022 and 2023). The first three years of trend for vision were updated to reflect the five-year rate guarantee (premiums would be fixed at 2021 levels for 2022, 2023, 2024 and 2025).
- (7) The 2023 and 2024 trend for vision reflect the five-year rate guarantee.

Section 1: Actuarial Valuation Summary

Important information about actuarial valuations

An actuarial valuation is a budgeting tool with respect to the financing of future projected obligations of a postretirement health plan. As such, it will never forecast the precise future stream of benefit payments. It is an estimated forecast – the actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan, not by the actuarial valuation.

In order to prepare a valuation, Segal relies on a number of input items. These include:

Plan of benefits	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. For example, a plan may provide health benefits to post-65 retirees that coordinates with Medicare. If so, changes in the Medicare law or administration may change the plan's costs without any change in the terms of the plan itself. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan description in this report (as well as the plan summary included in our funding valuation report) to confirm that Segal has correctly interpreted the plan of benefits.
Participant data	An actuarial valuation for a plan is based on data provided to the actuary by ACERA. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is not necessary to have perfect data for an actuarial valuation: the valuation is an estimated forecast, not a prediction. The uncertainties in other factors are such that even perfect data does not produce a "perfect" result. Notwithstanding the above, it is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
Assets	This valuation is based on the fair value of assets as of the valuation date, as provided by ACERA. The Association uses an actuarial value of assets that differs from fair value of assets to gradually reflect six-month changes in the fair value of assets in the SRBR sufficiency valuation.
Actuarial assumptions	In preparing an actuarial valuation, Segal projects the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. To determine the future costs of benefits, Segal collects premiums and enrollment data in order to establish a baseline cost for the valuation measurement, and then develops short- and long-term health care cost trend rates to project increases in costs in future years. This forecast also requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year, as well as forecasts of the plan's benefits for each of those events. The forecasted benefits are then discounted to a present value, based on an estimate of the rate of return that will be achieved on the plan's assets. All of these factors are uncertain and unknowable. Thus, there will be a range of reasonable assumptions, and the results may vary materially based on which assumptions the actuary selects within that range. That is, there is no right answer (except with hindsight). It is important for any user of an actuarial valuation to understand and accept this constraint. The actuarial model necessarily uses approximations and estimates that may lead to significant changes in our results but will have no impact on the actual cost of the plan. In addition, the actuarial assumptions may change over time, and while this can have a significant impact on the reported results, it does not mean that the previous assumptions or results were unreasonable or wrong.

Section 1: Actuarial Valuation Summary

Models

Segal accounting results are based on proprietary actuarial modeling software. The accounting valuation models generate a comprehensive set of liability and cost calculations that are presented to meet accounting standards and client requirements. Our Actuarial Technology and Systems unit, comprising both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuary.

Our per capita costs assumptions are based on proprietary modeling software as well as models that were developed by others. These models generate per capita claims cost calculations that are used in our valuation software. Our Health Technical Services Unit, comprised of actuaries and programmers, is responsible for the initial development and maintenance of our health models. They are also responsible for testing models that we purchase from other vendors for reasonableness. The client team inputs the premiums, enrollments, and assumptions into these models and reviews the results for reasonableness, under the supervision of the responsible actuary.

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

The valuation is prepared at the request of the Board to assist ACERA in preparing items related to the OPEB SRBR plan in their financial reports. Segal is not responsible for the use or misuse of its report, particularly by any other party.

An actuarial valuation is a measurement of the plan's assets and liabilities at a specific date. Accordingly, except where otherwise noted, Segal did not perform an analysis of the potential range of future financial measures. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

If ACERA is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.

Sections of this report include actuarial results that are not rounded, but that does not imply precision.

Critical events for a plan include, but are not limited to, decisions about changes in benefits and contributions. The basis for such decisions needs to consider many factors such as the risk of changes in plan enrollment, emerging claims experience, health care trend, and investment losses, not just the current valuation results.

Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. The Board should look to their other advisors for expertise in these areas.

While Segal maintains extensive quality assurance procedures, an actuarial valuation involves complex computer models and numerous inputs. In the event that an inaccuracy is discovered after presentation of Segal's valuation, Segal may revise that valuation or make an appropriate adjustment in the next valuation.

As Segal has no discretionary authority with respect to the management or assets of ACERA, it is not a fiduciary in its capacity as actuaries and consultants with respect to ACERA.

Section 2: GASB 74 Information

General information about the OPEB plan

Plan Description

Plan administration. The Alameda County Employees' Retirement Association (ACERA) was established by the Alameda County Board of Supervisors in 1947. ACERA is administered by the Board of Retirement and governed by the County Employees' Retirement Law of 1937 (California Government Code Section 31450 et. seq.). ACERA is a cost-sharing, multiple employer, defined benefit, public employee retirement system whose main function is to provide service retirement, disability, death, and survivor benefits to the General and Safety members employed by the County of Alameda. ACERA also provides retirement benefits to the employee members of First 5 Alameda County, Housing Authority of the County of Alameda, Alameda Health System, Livermore Area Recreation and Park District (LARPD), Superior Court of California—County of Alameda, and Alameda County Office of Education (ACOE).

The management of ACERA is vested with the ACERA Board of Retirement. The Board consists of nine members and two alternates. The County Treasurer is a member of the Board of Retirement by law and is elected by the general public. Four members are appointed by the Board of Supervisors, one of whom may be a County Supervisor. Two active members are elected by the General members; one active member and one alternate are elected by the Safety members; one retired member and one alternate are elected by the retired members. All members of the Board of Retirement serve terms of three years except for the County Treasurer whose term runs concurrent with his term as County Treasurer.

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

Retired members currently receiving medical benefits	TBD
Retired members currently receiving dental and vision benefits	TBD
Vested terminated members entitled to, but not yet receiving benefits	TBD
Active members	TBD

Note: Data as of December 31, 2022 is not used in the measurement of the TOL as of December 31, 2022. It will be used for the sufficiency study for the SRBR as of December 31, 2022 as well as in next year's GASB 74 valuation. The December 31, 2022 demographic data will be included in the final version of this report.

The retiree count excludes beneficiaries under 65 receiving an implicit subsidy.

Section 2: GASB 74 Information

Benefits provided. ACERA provides benefits to eligible employees under the following terms and conditions.

Eligibility:

Service Retirees: Retired with at least 10 years of service (including deferred vested members who terminate employment and receive a retirement benefit from ACERA)

Disabled Retirees: A minimum of 10³ years of service is required for non-duty disability. There is no minimum service requirement for duty disability.

Other Postemployment Benefits (OPEB):

Monthly Medical Allowance

Service Retirees: For retirees not purchasing individual insurance through the Medicare Insurance Exchange, a Maximum Monthly Medical Allowance of \$596.73 per month is provided, effective January 1, 2022. For the period January 1, 2023 through December 31, 2023, the maximum allowance will increase to \$616.12 per month.

For those purchasing individual insurance through the Individual Medicare Insurance Exchange, the Maximum Monthly Medical Allowance is \$457.13 per month for 2022 and will increase to \$471.99 per month in 2023.

These Allowances are subject to the following subsidy schedule:

Completed Years of Service	Percentage Subsidized
10-14	50%
15-19	75%
20+	100%

Disabled Retirees: Non-duty disabled retirees receive the same Monthly Medical Allowance as service retirees. Duty disabled retirees receive the same Monthly Medical Allowance as those service retirees with 20 or more years of service.

³ The 10 years of service requirement is only used for determining eligibility for health benefits. For pension benefits, the eligibility requirements is 5 years of service.

Section 2: GASB 74 Information

<i>Medicare Benefit Reimbursement Plan:</i>	<p>The SRBR reimburses the full Medicare Part B premium to qualified retired members. To qualify for reimbursement, a retiree must:</p> <ul style="list-style-type: none"> • Have at least 10 years of ACERA service, • Be eligible for Monthly Medical Allowance, • Provide proof of enrollment in Medicare Part B.
<i>Dental and Vision Plans:</i>	<p>The SRBR provides dental and vision benefits for retirees only. The maximum combined monthly dental and vision premium are \$48.12 in 2022 and \$55.87 in 2023. The eligibility for these premiums is as follows.</p>
Service Retirees:	Retired with at least 10 years of service.
Disabled Retirees:	<p>For non-duty disabled retirees, 10 years of service is required. For grandfathered non-duty disabled retirees (with effective retirement dates on or before January 31, 2014), there is no minimum service requirement.</p> <p>For duty disabled retirees, there is no minimum service requirement.</p>
<i>Note about Monthly Medical Allowance:</i>	<p>The maximum levels of subsidy are reviewed by the Board annually and are not indexed to increase automatically.</p> <p>In addition, the Monthly Medical Allowance can only be used to pay for retiree medical benefits. There is no benefit payable to beneficiaries, current spouses, former spouses or dependents.</p> <p>If the actual cost of coverage is less than the Monthly Medical Allowance, the difference is not paid in cash or applied towards the coverage for beneficiaries, current spouses, former spouses or dependents.</p>
Deferred Benefit:	<p>Members who terminate employment with 10 or more years of service before reaching pension eligibility commencement age may elect deferred MMA and/or dental/vision benefits.</p>
Death Benefit:	<p>Surviving spouses/domestic partners of members who die before the member commences retiree health benefits may enroll in an ACERA group medical plan on the date that the member would have been eligible to commence benefits. The surviving spouse/domestic partner must pay 100% of the premium. Because premiums for surviving spouses/domestic partners under age 65 include active participants for purposes of underwriting, the surviving spouses/domestic partners receive an implicit subsidy, which creates a liability for the SRBR.</p>

Section 2: GASB 74 Information

Net OPEB Liability

Measurement Date	December 31, 2022	December 31, 2021
Components of the Net OPEB Liability		
Total OPEB Liability	\$1,232,016,820	\$1,203,078,101
Plan's Fiduciary Net Position	<u>1,040,720,573</u>	<u>1,623,641,492</u>
Net OPEB Liability	\$191,296,247	(\$420,563,391)
Plan's Fiduciary Net Position as a percentage of the Total OPEB Liability	84.47%	134.96%

The Net OPEB Liability (NOL) was measured as of December 31, 2022 and 2021. The Plan's Fiduciary Net Position (plan assets) was valued as of the measurement date, while the Total OPEB Liability (TOL) as of December 31, 2022 and 2021 was determined by rolling forward the TOL as of December 31, 2021 and 2020, respectively.

Plan provisions. The plan provisions used in the measurement of the NOL as of December 31, 2022 and 2021 are the same as those used in ACERA's SRBR sufficiency valuation as of December 31, 2021 and 2020, respectively.

Actuarial assumptions. 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 the health care trend assumptions recommended for the upcoming sufficiency study for the SRBR as of December 31, 2022 (reference: our draft letter dated March 28, 2023). The assumptions used in the December 31, 2022 SRBR OPEB actuarial valuation for ACERA were applied to all periods included in the measurement:

Investment rate of return	7.00%, net of OPEB plan investment expense, including inflation
Inflation	2.75%
Health care premium trend rates (used to project health care costs after calendar year 2023):	
Non-Medicare medical plan	Graded from 7.50% in 2023 to ultimate 4.50% over 12 years
Medicare medical plan	Graded from 6.25% in 2023 to ultimate 4.50% over 7 years
Dental	4.00%
Vision	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 ⁴	4.50%
Other assumptions:	Same as those proposed in the experience study for the period December 1, 2016 through November 30, 2019.

⁴ The actual calendar year 2022 premium decrease of 3.06% reflecting the standard 2023 calendar year premium of \$164.90 per month, consistent with Segal's Medicare Part B memo dated October 27, 2022 was reflected in the current year GASB 74 valuation with December 31, 2022 measurement date.

Section 2: GASB 74 Information

The actuarial assumptions used for the December 31, 2021 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 the health care trend assumptions recommended for the sufficiency study for the SRBR as of December 31, 2021 (reference: our letter dated May 13, 2022). The assumptions used in the December 31, 2021 SRBR OPEB actuarial valuation for ACERA were applied to all periods included in the measurement:

Investment rate of return	7.00%, net of OPEB plan investment expense, including inflation
Inflation	2.75%
Health care premium trend rates (used to project health care costs after calendar year 2022):	
Non-Medicare medical plan	Graded from 7.50% in 2022 to ultimate 4.50% over 12 years
Medicare medical plan	Graded from 6.50% in 2022 to ultimate 4.50% over 8 years
Dental	0.00% for the first year to reflect a three-year rate guarantee (premiums fixed at 2021 level for 2022 and 2023) and 4.00% thereafter.
Vision	0.00% for the first three 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 ⁵	4.50%
Other assumptions:	Same as those proposed in the experience study for the period December 1, 2016 through November 30, 2019.

⁵ The actual calendar year 2021 premium increase of 14.55% reflecting the standard 2022 calendar year premium of \$170.10 per month, consistent with Segal's Medicare Part B memo dated November 19, 2021 was reflected in the current year GASB 74 valuation with December 31, 2021 measurement date.

Section 2: GASB 74 Information

Determination of discount rate and investment rates of return

The long-term expected rate of return on OPEB plan investments⁶ was determined in 2020 using a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage, adding expected inflation and subtracting expected investment expenses and a risk margin. The target allocation (approved by the Board) and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before investment expenses are shown in the following table. This information was used in the derivation of the long-term expected investment rate of return assumption for the December 31, 2022 actuarial valuation. This information will be subject to change every three years based on the results of an actuarial experience study.

Asset Class	Target Allocation	Long-Term Expected Arithmetic Real Rate of Return
US large Cap Equity	22.40%	5.43%
US Small Cap Equity	2.50%	6.21%
International Developed Equity	17.00%	6.67%
International Small Cap Equity	3.00%	7.36%
Emerging Markets Equity	5.00%	8.58%
Core Plus Fixed Income	11.50%	1.10%
High Yield Bonds	1.60%	2.91%
Global Fixed Income	3.00%	-0.63%
Private Equity	10.50%	10.00%
Core Real Estate	8.00%	4.58%
Commodities	0.75%	3.46%
Infrastructure	1.75%	7.80%
Private Credit	4.00%	8.50%
Absolute Return	9.00%	3.70%
Total	100.00%	5.56%

⁶ Note that the investment return assumption for SRBR sufficiency (and pension 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.)

Section 2: GASB 74 Information

Discount rate. The discount rate used to measure the Total OPEB Liability was 7.00% as of December 31, 2022 and December 31, 2021. The projection of cash flows used to determine the discount rate assumed benefits are paid out of 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 benefits payments for current plan members.⁷ Therefore the long-term expected rate of return on OPEB plan investments was applied to all periods of projected benefit payments to determine the Total OPEB Liability as of December 31, 2022 and December 31, 2021.

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⁷ See discussions in Section 1 regarding source of funding for payment of OPEB SRBR benefits not covered by current OPEB SRBR Plan's Fiduciary Net Position.

Section 2: GASB 74 Information

Discount rate and trend sensitivity

Sensitivity of the Net OPEB Liability to changes in the discount rate. The following presents the Net OPEB Liability of ACERA as of December 31, 2022, calculated using the discount rate of 7.00%, as well as what ACERA's NOL 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.

	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
Net OPEB Liability as of December 31, 2022	\$355,666,658	\$191,296,247	\$55,442,741

Sensitivity of the Net OPEB Liability to changes in the healthcare cost trend rate. The following presents the Net OPEB Liability of ACERA as of December 31, 2022, calculated using the current trend rate as well as what ACERA's 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:

	1% Decrease	Current Trend Rates ⁸	1% Increase
Net OPEB Liability as of December 31, 2022	\$29,595,345	\$191,296,247	\$392,245,496

⁸ Refer to health care trend assumptions on page 11.

Section 2: GASB 74 Information

Schedule of changes in Net OPEB Liability – Last two fiscal years

Measurement Date	December 31, 2022	December 31, 2021
Total OPEB Liability		
• Service cost ⁽¹⁾	\$33,755,489	\$33,439,903
• Interest	84,971,113	84,143,669
• Change of benefit terms	0	0
• Differences between expected and actual experience	(27,433,715)	(24,112,098)
• Changes of assumptions	(15,643,051)	(36,047,500)
• Benefit payments	(46,711,117)	(45,916,769)
Net change in Total OPEB Liability	\$28,938,719	\$11,507,205
Total OPEB Liability – beginning	<u>1,203,078,101</u>	<u>1,191,570,896</u>
Total OPEB Liability – ending	<u>\$1,232,016,820</u>	<u>\$1,203,078,101</u>
Plan's Fiduciary Net Position		
• Contributions – employer ⁽²⁾	N/A	N/A
• Contributions – member	N/A	N/A
• Net investment income	(\$534,552,802)	\$486,212,907
• Benefit payments	(46,711,117)	(45,916,769)
• Administrative expense	(1,657,000)	(1,537,500)
• Other	0	0
Net change in Plan's Fiduciary Net Position	(\$582,920,919)	\$438,758,638
Plan's Fiduciary Net Position⁽³⁾ – beginning	<u>1,623,641,492</u>	<u>1,184,882,854</u>
Plan's Fiduciary Net Position⁽³⁾ – ending	<u>\$1,040,720,573</u>	<u>\$1,623,641,492</u>
Net OPEB Liability – ending	<u>\$191,296,247</u>	<u>(\$420,563,391)</u>
Plan's Fiduciary Net Position as a percentage of the Total OPEB Liability	84.47%	134.96%
Covered employee payroll⁽⁴⁾	N/A	N/A
Plan Net OPEB Liability as percentage of covered employee payroll	N/A	N/A

(1) The Service Cost is based on the previous year's valuation, meaning the December 31, 2022 and December 31, 2021 measurement date values are based on the valuations as of December 31, 2021 and December 31, 2020, respectively.

(2) 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.

(3) See footnote (2) on page 5 for a discussion on the development of the 2022 "Plan's Fiduciary Net Position – beginning" amount of \$1,623,641,492 and the 2022 "Plan's Fiduciary Net Position – ending" amount of \$1,040,720,573.

(4) 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.

Section 2: GASB 74 Information

Schedule of Employer contributions – Last ten fiscal years

Year Ended December 31	Actuarially Determined Contributions ⁽¹⁾	Contributions in Relation to the Actuarially Determined Contributions ⁽¹⁾	Contribution Deficiency / (Excess)	Covered Employee Payroll ⁽²⁾	Contributions as a Percentage of Covered Employee Payroll
2013	N/A	N/A	0	N/A	N/A
2014	N/A	N/A	0	N/A	N/A
2015	N/A	N/A	0	N/A	N/A
2016	N/A	N/A	0	N/A	N/A
2017	N/A	N/A	0	N/A	N/A
2018	N/A	N/A	0	N/A	N/A
2019	N/A	N/A	0	N/A	N/A
2020	N/A	N/A	0	N/A	N/A
2021	N/A	N/A	0	N/A	N/A
2022	N/A	N/A	0	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.

Section 3: Appendices

Appendix A: Projection of OPEB Plan's Fiduciary Net Position for use in the Calculation of Discount Rate as of December 31, 2022

Year Beginning January 1,	Projected Beginning OPEB Plan's Fiduciary Net Position (a)	Projected Total Contributions (b)	Projected Benefit Payments (c)	Projected Administrative Expenses (d)	Projected Investment Earnings (e)	Projected ending OPEB Plan's Fiduciary Net Positions (f) = (a)+(b)-(c)-(d)+(e)
2022	\$1,624	\$0	\$47	\$2	(\$535)	\$1,041
2023	1,041	0	59	1	71	1,051
2024	1,051	0	63	1	71	1,058
2025	1,058	0	67	1	72	1,061
2026	1,061	0	72	1	72	1,060
2027	1,060	0	77	1	71	1,054
2028	1,054	0	81	1	71	1,043
2029	1,043	0	85	1	70	1,027
2030	1,027	0	90	1	69	1,005
2031	1,005	0	94	1	67	976
2032	976	0	99	1	65	941
2033	941	0	104	1	62	899
2034	899	0	108	1	59	849
2035	849	0	112	1	55	792
2036	792	0	116	1	51	726
2037	726	0	120	1	47	652
2038	652	0	124	1	41	569
2039	569	0	128	1	35	476
2040	476	0	131	0*	29	373
2041	373	0	135	0*	21	259
2042	259	0	138	0*	13	134
2043	134	0	142	0*	4	0
2044	0	0	145	0*	0	0
2121	0	0	0	0	0	0
2122	0					
2122	Discounted 0					

* Less than \$1 million when rounded.

Section 3: Appendices

Notes

1. Amounts may not total exactly due to rounding.
2. Amounts shown in the year beginning January 1, 2022 row are actual amounts, based on the financial statements provided by ACERA.
3. Years 2045-2120 have been omitted from this table.
4. Column (a): Except for the "discounted value" shown for 2122, all of the projected beginning Plan's Fiduciary Net Position amounts shown have not been adjusted for the time value of money.
5. Column (b): \$0. 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.
6. Column (c): Projected benefit payments have been determined in accordance with paragraph 43-47 of GASB Statement No. 74, and are based on the closed group of active, inactive vested, retired members, and beneficiaries as of November 30, 2021. The projected benefit payments reflect future health care trends. The projected benefit payments include the OPEB SRBR benefits to the extent the current OPEB SRBR (including the portion of deferred investment loss as of December 31, 2022 that is expected to be allocated to the SRBR) supports those benefits*. Benefit payments are assumed to occur halfway through the year, on average. In accordance with paragraph 35 b.(2)(e) of GASB Statement No. 74, the long-term expected rate of return on Plan investments of 7.00% per annum was applied to all periods of projected benefit payments to determine the discount rate.
7. Column (d): Projected administrative expenses are calculated as approximately 0.10% of the beginning OPEB SRBR Plan's Fiduciary Net Position amount. The 0.10% portion was based on the actual fiscal year 2022 administrative expenses as a percentage of the beginning OPEB SRBR Plan's Fiduciary Net Position amount as of January 1, 2022. Administrative expenses are assumed to occur halfway through the year, on average.
8. Column (e): Projected investment earnings are based on the assumed investment rate of return of 7.00% per annum.
9. As illustrated in this Exhibit, the OPEB SRBR Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments for current Plan members. In other words, there is no projected "cross-over date" when projected benefits are not covered by projected assets. Therefore, the long-term expected rate of return on Plan investments of 7.00% per annum was applied to all periods of projected benefit payments to determine the total OPEB liability as of December 31, 2022 shown earlier in this report, pursuant to paragraph 48 of GASB Statement No. 74.

* See discussion on page 2 regarding source of funding for payment of OPEB SRBR benefits not covered by current OPEB Plan's Fiduciary Net Position in the SRBR.

Section 3: Appendices

Appendix B: Definition of Terms

Definitions of certain terms as they are used in Statement 74. The terms may have different meanings in other contexts.

Actuarially Determined Contribution:	A target or recommended contribution to an OPEB plan for the reporting period based on the most recent measurement available.
Assumptions or Actuarial Assumptions:	The estimates on which the cost of the Plan is calculated including: <ol style="list-style-type: none">Investment return — the rate of investment yield that the Plan will earn over the long-term future;Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates;Retirement rates — the rate or probability of retirement at a given age;Turnover rates — the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.
Covered Employee Payroll:	The payroll of the employees that are provided OPEB benefits
Discount Rate:	The single rate of return, that when applied to all projected benefit payments results in an actuarial present value that is the sum of the following: <ol style="list-style-type: none">the actuarial present value of projected benefit payments projected to be funded by plan assets using a long term rate of return, andthe actuarial present value of projected benefit payments that are not included in (1) using a yield or index rate for 20 year tax exempt general obligation municipal bonds with an average rating of AA/Aa or higher.
Entry Age Actuarial Cost Method:	An actuarial cost method where the present value of the projected benefits for an individual is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age.
Healthcare Cost Trend Rates:	The rate of change in per capita health costs over time.
Net OPEB Liability:	The Total OPEB Liability less the Plan Fiduciary Net Position.
Plan Fiduciary Net Position:	Market Value of Assets
Real Rate of Return:	The rate of return on an investment after removing inflation.
Service Cost:	The amount of contributions required to fund the benefit allocated to the current year of service.
Total OPEB Liability:	The portion of the actuarial present value of projected benefit payments that is attributed to past periods of employee service in conformity with the requirements of Statement 74.
Valuation Date:	The date at which the actuarial valuation is performed

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Via Email

April 11, 2023

Ms. Lisa Johnson
Assistant Chief Executive Officer
Alameda County Employees' Retirement Association
475 14th Street, Suite 1000
Oakland, CA 94612

**Re: Alameda County Employees' Retirement Association (ACERA)
Addendum to the Governmental Accounting Standards Board (GASB) Statement 74
Actuarial Valuation as of December 31, 2022**

Dear Lisa:

In our draft Governmental Accounting Standards Board (GASB) Statement 74 actuarial valuation report dated April 10, 2023, we provided the Net OPEB Liability (NOL) and other elements that are required for completing the Plan's financial reporting requirements under GASB Statement 74. In this letter, we have provided as an Addendum to that report two additional schedules for use in allocating the NOL and OPEB expense by employer, before we issue the full companion report for the employer's financial reporting for ACERA under GASB Statement 75. This is similar to a recommendation made by the American Institute of Certified Public Accountants (AICPA) State and Local Government Expert Panel to have comparable schedules prepared for the Pension Plan when we implemented GASB Statements 67 and 68.

The attached schedules have been developed based on the assumptions, methods, and results shown in our report dated April 10, 2023. Exhibits A1 and A2 detail the method used for allocating the NOL and the NOL amounts allocated to the seven employers at ACERA as of December 31, 2021 and December 31, 2022, respectively.¹

Special Note Related to Allocation of NOL for the OPEB SRBR

The Alameda County Office of Education (ACOE) made a lump sum contribution of \$750,000 in 2019 to partially pay off their UAAL to the pension plan. That lump sum is greater than the amount that ACOE would have to make on an installment basis over 20 years. In order to have a more level allocation of the NPL and NOL to ACOE, ACERA approved an approach outlined in our March 2, 2020 letter to determine ACOE's proportionate share of the non-OPEB SRBR

¹ The December 31, 2021 and December 31, 2022 NOL has been allocated to the different employers in proportion to the total employer contributions made by those employers to the Pension Plan during calendar years 2021 and 2022, respectively, based on prior discussions and approval provided by the Board.

NOL by using ACOE's required contributions determined as if they had not made the additional lump sum contribution in 2019. We have continued to use that method in determining ACOE's proportionate share of the OPEB SRBR NOL in this letter.

The County made voluntary County Safety contributions of \$800 million on around June 29, 2021 to reduce their Safety UAAL for the pension plan and associated contribution rates. The Livermore Area Recreation and Park District (LARPD) also made voluntary LARPD General contributions of \$12.611 million on around June 29, 2021 to reduce their General UAAL for the pension plan and associated contribution rates. We have amortized the voluntary County Safety UAAL contributions over 13 years effective FY 21-22 to provide a UAAL contribution rate credit for County Safety and the voluntary LARPD General UAAL contributions over 16 years effective FY 21-22 to provide a UAAL contribution rate credit for LARPD General. Similar to the approach approved by ACERA as described in the previous paragraph for determining ACOE's proportionate share of the OPEB SRBR NOL, we have determined the County Safety and LARPD's proportionate share of the OPEB SRBR NOL by using the County Safety and LARPD's required contributions, respectively, as if they had not made the voluntary UAAL contributions in 2021.

Exhibit B summarizes the allocated NOL, deferred outflows and inflows of resources, and OPEB expense by the seven employers. Additional information required under GASB Statement 75 that each of the employers will need to disclose will be provided in a separate report.

The actuarial calculations were completed under the supervision of Mary Kirby, FSA, FCA, MAAA and Andy Yeung, ASA, MAAA, FCA, Enrolled Actuary. We are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

Please give us a call if you have any questions.

Sincerely,

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

Mary Kirby, FSA, FCA, MAAA
Senior Vice President and Consulting Actuary

VZP/jl

Schedule of Employer Allocations as of December 31, 2021

Actual Employer Contributions by Employer January 1, 2021 to December 31, 2021		
Employer	Contributions	Percentage¹
Alameda County ²	\$256,292,148	77.170%
Health System	59,357,100	17.872%
Superior Court	12,018,963	3.619%
First 5	1,477,674	0.445%
Housing Authority	1,398,011	0.421%
LARPD ³	1,422,470	0.428%
ACOE ⁴	<u>148,854</u>	<u>0.045%</u>
Total for all Employers	\$332,115,220	100.000%

¹ The unrounded percentages are used in the allocation of the NOL amongst employers.

² This includes \$139,147,479 of County General actual employer contributions and \$117,144,669 of County Safety adjusted employer contributions used for purposes of determining the proportionate share of the OPEB SRBR NOL for the County. The County made voluntary County Safety contributions of \$800,000,000 on around June 29, 2021 to reduce their Safety UAAL for the pension plan and associated contribution rates. We have amortized the voluntary County Safety UAAL contributions to provide a UAAL contribution rate credit for County Safety over 13 years effective FY 21-22. Similar to the approach approved by ACERA for ACOE to determine ACOE's proportionate share of the OPEB SRBR NOL, we determined County Safety's proportionate share of the OPEB SRBR NOL by using the County Safety's actual contributions (but excluding \$800 million of voluntary UAAL contributions) made in 2021 in the amount of \$89,395,284 plus the contribution credit applied in 2021 in the amount of \$27,749,385 for a total adjusted County Safety contribution of \$117,144,669.

³ LARPD made voluntary LARPD General contributions of \$12,611,250 on around June 29, 2021 to reduce their General UAAL for the pension plan and associated contribution rates. We have amortized the voluntary LARPD General UAAL contributions to provide a UAAL contribution rate credit for LARPD General over 16 years effective FY 21-22. Similar to the approach approved by ACERA for ACOE to determine ACOE's proportionate share of the OPEB SRBR NOL, we determined LARPD's proportionate share of the OPEB SRBR NOL by using LARPD's actual contributions (but excluding \$12,611,250 of voluntary UAAL contributions) made in 2021 in the amount of \$1,081,079 plus the contribution credit applied in 2021 in the amount of \$341,391 for a total adjusted LARPD contribution of \$1,422,470.

⁴ ACOE made a lump sum contribution of \$750,000 in 2019 to partially pay off their UAAL to the pension plan. That lump sum is greater than the amount that ACOE would have to make on an installment basis over 20 years. In order to have a more level allocation of the NPL and NOL to ACOE, ACERA approved an approach outlined in our March 2, 2020 letter to determine ACOE's proportionate share of the OPEB SRBR NOL by using ACOE's required contributions determined in our December 31, 2019 valuation in the amount of \$89,000 based on an April 1, 2021 payment date plus the amortization of the remaining balance of the original \$750,000 lump sum amount (an amount of \$59,854 which represents the additional UAAL contribution ACOE would have been required to pay if they did not make the additional lump sum contribution in 2019).

Schedule of Employer Allocations as of December 31, 2021

Employer	Allocation of December 31, 2021 Net OPEB Liability	
	NOL	Percentage ¹
Alameda County	(\$324,547,291)	77.170%
Health System	(75,164,948)	17.872%
Superior Court	(15,219,826)	3.619%
First 5	(1,871,205)	0.445%
Housing Authority	(1,770,326)	0.421%
LARPD	(1,801,299)	0.428%
ACOE	(188,496)	0.045%
Total for all Employers	(\$420,563,391)	100.000%

Notes:

1. Allocated based on the actual January 1, 2021 through December 31, 2021 employer contributions in total as provided by ACERA, with an adjustment to reflect the total annual UAAL contribution ACOE would have been required to make of \$148,854 in 2021 had they not made the additional contribution in 2019 to partially pay off their UAAL for the pension plan. This approach is outlined in our March 2, 2020 letter and is approved by ACERA. Following this approach, there is an adjustment to reflect the total annual contribution County Safety would have been required to make of \$117,144,669 in 2021 had they not made the voluntary County Safety UAAL contribution in 2021 to the pension plan. There is also an adjustment to reflect the total annual contribution LARPD would have been required to make of \$1,422,470 in 2021 had they not made the voluntary LARPD General UAAL contribution in 2021 to the pension plan.
2. The Net OPEB Liability (NOL) is the Total OPEB Liability (TOL) minus the OPEB SRBR Plan's Fiduciary Net Position (plan assets).
3. The employer's share of the total plan NOL is the ratio of the employer's total contributions to the total contributions for all employers.

¹ The unrounded percentages are used in the allocation of the NOL amongst employers.

Schedule of Employer Allocations as of December 31, 2022

Actual Employer Contributions by Employer January 1, 2022 to December 31, 2022		
Employer	Contributions	Percentage¹
Alameda County ²	\$283,811,533	77.476%
Health System	64,478,768	17.602%
Superior Court	13,151,755	3.590%
First 5	1,695,921	0.463%
Housing Authority	1,508,274	0.412%
LARPD ³	1,514,139	0.413%
ACOE ⁴	<u>159,854</u>	<u>0.044%</u>
Total for all Employers	\$366,320,244	100.000%

¹ The unrounded percentages are used in the allocation of the NOL amongst employers.

² This includes \$151,823,933 of County General actual employer contributions and \$131,987,600 of County Safety adjusted employer contributions used for purposes of determining the proportionate share of the OPEB SRBR NOL for the County. The County made voluntary County Safety contributions of \$800,000,000 on around June 29, 2021 to reduce their Safety UAAL for the pension plan and associated contribution rates. We have amortized the voluntary County Safety UAAL contributions to provide a UAAL contribution rate credit for County Safety over 13 years effective FY 21-22. Similar to the approach approved by ACERA for ACOE to determine ACOE's proportionate share of the OPEB SRBR NOL, we determined County Safety's proportionate share of the OPEB SRBR NOL by using the County Safety's actual contributions made in 2022 in the amount of \$48,368,659 plus the contribution credit applied in 2022 in the amount of \$83,618,941 for a total adjusted County Safety contribution of \$131,987,600.

³ LARPD made voluntary LARPD General contributions of \$12,611,250 on around June 29, 2021 to reduce their General UAAL for the pension plan and associated contribution rates. We have amortized the voluntary LARPD General UAAL contributions to provide a UAAL contribution rate credit for LARPD General over 16 years effective FY 21-22. Similar to the approach approved by ACERA for ACOE to determine ACOE's proportionate share of the OPEB SRBR NOL, we determined LARPD's proportionate share of the OPEB SRBR NOL by using LARPD's actual contributions made in 2022 in the amount of \$519,392 plus the contribution credit applied in 2022 in the amount of \$994,747 for a total adjusted LARPD contribution of \$1,514,139.

⁴ ACOE made a lump sum contribution of \$750,000 in 2019 to partially pay off their UAAL to the pension plan. That lump sum is greater than the amount that ACOE would have to make on an installment basis over 20 years. In order to have a more level allocation of the NPL and NOL to ACOE, ACERA approved an approach outlined in our March 2, 2020 letter to determine ACOE's proportionate share of the OPEB SRBR NOL by using ACOE's required contributions determined in our December 31, 2020 valuation in the amount of \$100,000 based on an April 1, 2022 payment date plus the amortization of the remaining balance of the original \$750,000 lump sum amount (an amount of \$59,854 which represents the additional UAAL contribution ACOE would have been required to pay if they did not make the additional lump sum contribution in 2019).

Schedule of Employer Allocations as of December 31, 2022

Employer	Allocation of December 31, 2022 Net OPEB Liability	
	NOL	Percentage ¹
Alameda County	\$148,209,340	77.476%
Health System	33,671,484	17.602%
Superior Court	6,867,983	3.590%
First 5	885,628	0.463%
Housing Authority	787,636	0.412%
LARPD	790,699	0.413%
ACOE	83,477	0.044%
Total for all Employers	\$191,296,247	100.000%

Notes:

1. Allocated based on the actual January 1, 2022 through December 31, 2022 employer contributions in total as provided by ACERA, with an adjustment to reflect the total annual UAAL contribution ACOE would have been required to make of \$159,854 in 2022 had they not made the additional contribution in 2019 to partially pay off their UAAL for the pension plan. This approach is outlined in our March 2, 2020 letter and is approved by ACERA. Following this approach, there is an adjustment to reflect the total annual contribution County Safety would have been required to make of \$131,987,600 in 2022 had they not made the voluntary County Safety UAAL contribution in 2021 to the pension plan. There is also an adjustment to reflect the total annual contribution LARPD would have been required to make of \$1,514,139 in 2022 had they not made the voluntary LARPD General UAAL contribution in 2021 to the pension plan.
2. The Net OPEB Liability (NOL) is the Total OPEB Liability (TOL) minus the OPEB SRBR Plan's Fiduciary Net Position (plan assets).
3. The employer's share of the total plan NOL is the ratio of the employer's total contributions to the total contributions for all employers.

¹ The unrounded percentages are used in the allocation of the NOL amongst employers.

Schedule of OPEB Amounts by Employer as of December 31, 2022

Employer	Net OPEB Liability	Deferred Outflows of Resources				Total Deferred Outflows of Resources
		Differences Between Actual And Expected Experience	Net Difference Between Projected and Actual Earnings on OPEB Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	
Alameda County	\$148,209,340	\$0	\$131,476,044	\$32,647,119	\$1,010,359	\$165,133,522
Health System	33,671,484	0	29,869,869	7,417,057	582,476	37,869,402
Superior Court	6,867,983	0	6,092,567	1,512,859	310,736	7,916,162
First 5	885,628	0	785,637	195,083	80,622	1,061,342
Housing Authority	787,636	0	698,710	173,498	23,481	895,689
LARPD	790,699	0	701,426	174,173	68,448	944,047
ACOE	<u>83,477</u>	<u>0</u>	<u>74,053</u>	<u>18,388</u>	<u>32,445</u>	<u>124,886</u>
Total for all Employers	\$191,296,247	\$0	\$169,698,306	\$42,138,177	\$2,108,567	\$213,945,050

Schedule of OPEB Amounts by Employer as of December 31, 2022

Employer	Deferred Inflows of Resources				OPEB Expense			
	Differences Between Expected and Actual Experience	Net Difference Between Actual and Projected Earnings on OPEB Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Proportionate Share of Plan OPEB Expense	Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Employer OPEB Expense
Alameda County	\$56,288,258	\$0	\$31,496,423	\$68,305	\$87,852,986	\$14,266,554	\$191,274	\$14,457,828
Health System	12,788,055	0	7,155,631	1,330,052	21,273,738	3,241,199	(123,591)	3,117,608
Superior Court	2,608,384	0	1,459,536	566,262	4,634,182	661,108	(74,282)	586,826
First 5	336,352	0	188,207	374	524,933	85,251	23,106	108,357
Housing Authority	299,134	0	167,383	49,725	516,242	75,817	(13,985)	61,832
LARPD	300,299	0	168,034	91,876	560,209	76,112	(12,969)	63,143
ACOE	31,704	0	17,740	1,973	51,417	8,035	10,447	18,482
Total for all Employers	\$72,652,186	\$0	\$40,652,954	\$2,108,567	\$115,413,707	\$18,414,076	\$0	\$18,414,076

Schedule of OPEB Amounts by Employer as of December 31, 2022

Notes:

1. Amounts shown in this exhibit were allocated by employer based on the Employer Allocation Percentage calculated in Exhibit A2.
2. In determining the OPEB expense:
 - Any differences between projected and actual investment earnings on OPEB plan investments are recognized over a period of five years beginning with the year in which they occur.
 - Current-period (i.e., 2022) changes in assumptions and differences between actual and expected experience are recognized over the average of the expected remaining service lives of all employees that are provided with OPEB benefits through ACERA determined as of December 31, 2021 (the beginning of the measurement period ending December 31, 2022) and is 6.28 years.¹
3. The average of the expected remaining service lives of all employees was determined by:
 - Calculating each active employee's expected remaining service life as the present value of \$1 per year of future service at zero percent interest.
 - Setting the remaining service life to zero for each nonactive or retired member.
 - Dividing the sum of the above amounts by the total number of active employees and nonactive and retired members
4. There was an increase in the total employer OPEB expense from (negative or an income) (\$111.4) million calculated last year to \$18.4 million calculated this year. The primary cause of the increase was due to the unfavorable return on the market value of assets for the year ended December 31, 2022 which raised the OPEB expense by \$129.3 million.

¹ The remaining service lives of all employees of 6.28 years used here for GASB 75 is different from the 4.98 years used for GASB 68 because the number of payees and nonactive members (with 0 years of expected remaining service lives) receiving health benefits under the SRBR Plan is less than the number of payees and nonactive members receiving pension benefits.



MEMORANDUM TO THE AUDIT COMMITTEE

DATE: May 18, 2023

TO: Members of the Audit Committee

FROM: Harsh Jadhav, Chief of Internal Audit

SUBJECT: Progress on the 2023 Internal Audit Program

Executive Summary

The Audit Committee meeting in May 2023 will feature the progress of the 2023 Internal Audit Program. In addition, Vijay Jagar, Chief Technology Officer, will provide a cybersecurity update. The Internal Audit Department is still on track to perform four internal audits and three special projects and provide staff with fraud training. Three internal audits are currently moving forward. The Workforce Resilience Audit continues to move forward, and the Death Benefit and Member Identity Theft audits have both started.

We are in the planning stages of the annual employee fraud training, which we expect to deliver in the middle of Q2 2023. The fraud training comprises promoting industry best practices and communicating new threats and trends to be aware of. The team also continues to meet regularly with the PAS Project Manager to review and recommend ways to strengthen internal controls in the new version of the pension administration system.

2023 Audit Schedule

Internal Audit Plan (2023)	Service Line	Assigned	Status	Q1	Q2	Q3	Q4
Death Benefit Audit	Internal Audit	Lyndon	In Progress				
Member Identity Theft Audit	Internal Audit	Caxton	In Progress				
Workforce Resilience Audit	Internal Audit	Harsh/Lyndon/ Marlon/Dana	In Progress				
Third-Party Service Provider Audit	Internal Audit	Harsh	Not Started				
Commercial Bank Internal Controls Project	Special Project	Caxton	Not Started				
Pension Administration System Internal Controls Project	Special Project	Lyndon/Caxton	In Progress				
Cybersecurity and Data Security Self-Assessment	Special Project	Vijay/Harsh	In Progress				
2023 Annual Risk Assessment	Administration	Harsh	Completed				
2024 Annual Risk Assessment	Administration	Harsh	Not Started				
Fraud Hotline Management	Administration	Lyndon	Continuous				
Fraud Training	Administration	Lyndon/Caxton	Not Started				

2023 Audit Program

Internal Audits

Death Benefit Audit

The objective of this audit is to review the process used for paying death benefits to beneficiaries of deceased retired members. The audit process will include an examination of the existing procedures and a verification check to ensure that members selected as part of the sample are alive and well.

Prevent Member Identity Theft Audit

This audit aims to strengthen internal fraud controls to prevent third parties from making unauthorized changes to member accounts and banking information. The examination will review the business process and explore technology solutions to enhance identity management controls.

Workforce Resilience Audit

The purpose of this review is to determine if ACERA has trained staff, backup personnel, and documented procedures for their critical processes. As the pandemic continues, part of prudent business continuity planning requires organizations to ensure essential staff are identified, critical processes are fully documented and updated regularly, and backup personnel has been trained and assessed periodically.

Third-Party Service Provider Audit

This audit determines if the critical third-party service providers that manage ACERA's confidential and sensitive information (i.e., member data) have internal controls to prevent breaches, processes to manage adverse events, and adequate incident response procedures.

Special Projects

Commercial Bank Internal Controls Project

The Fiscal Services Department has asked Internal Audit to provide advisory services and test internal controls for the segregation of duties as ACERA transitions to a new commercial bank to manage a suite of services, including retirement payroll, expense administration, and vendor payments.

Pension Administration System Internal Controls Project

The objective of this special project will be for the Internal Audit Department to support the business with technical guidance on risk and internal controls as the leadership plans to roll out Pension Gold (Version 3) to the organization.

Cybersecurity and Data Security Self-Assessment Project

The objective of this special project will be to work with the PRISM Department to determine if adequate firewalls, access controls, employee training, and processes for incident response, business recovery, and threat analysis are in place to ensure sensitive organizational data and member data is protected and secure.

Summary

We are focused on meeting the 2023 Audit Program objectives. I want to acknowledge my staff for their strong effort and dedication to delivering quality work. The Internal Audit staff continues to do an excellent job partnering with management, servicing the Board of Retirement, and protecting our members.

Internal Audit Department 2023 Internal Audit Plan

May 18, 2023

2023 Internal Audit Plan

Internal Audit Plan (2023)	Service Line	Assigned	Status	Q1	Q2	Q3	Q4
Death Benefit Audit	Internal Audit	Lyndon	In Progress				
Member Identity Theft Audit	Internal Audit	Caxton	In Progress				
Workforce Resilience Audit	Internal Audit	Harsh/Lyndon/ Marlon/Dana	In Progress				
Third-Party Service Provider Audit	Internal Audit	Harsh	Not Started				
Commercial Bank Internal Controls Project	Special Project	Caxton	Not Started				
Pension Administration System Internal Controls Project	Special Project	Lyndon/Caxton	In Progress				
Cybersecurity and Data Security Self-Assessment	Special Project	Vijay/Harsh	In Progress				
2023 Annual Risk Assessment	Administration	Harsh	Completed				
2024 Annual Risk Assessment	Administration	Harsh	Not Started				
Fraud Hotline Management	Administration	Lyndon	Continuous				
Fraud Training	Administration	Lyndon/Caxton	Not Started				

DiNapoli: Georgia Woman Allegedly Stole Over \$450K in New York State Pension and Social Security Payments

February 23, 2023

From the [Office of the New York State Comptroller](#):

State Comptroller Thomas P. DiNapoli, the U.S. Attorney for the Northern District of Georgia Ryan K. Buchanan and the Inspector General for the Social Security Administration Gail S. Ennis today announced the arrest of a Georgia resident, Sandra Smith, for allegedly stealing over \$450,000 in New York state pension and Social Security payments made to her deceased mother-in-law over a 16-year period.

“The defendant callously took advantage of her mother-in-law’s death to profit at the expense of New York’s retirement system and the Social Security Administration,” **DiNapoli** said. “She has now been brought to justice and we will seek full restitution. I thank U.S. Attorney Buchanan and the Social Security Administration Office of the Inspector General for their partnership on this matter.”

Case Facts

- Sandra Smith's **mother-in-law**, Minnie Smith, was a longtime Brooklyn resident who had worked for the State Insurance Fund from 1985 until her retirement in 2005. She subsequently moved to Georgia to be close to family but died on Sept. 14, 2006.
- Her family **did not notify** the New York State and Local Retirement System (NYSLRS) or the SSA of her death, and the **retirement system received a change of address form purportedly signed and dated by "Minnie Smith."** At the time of Minnie Smith's death in September 2006, **Sandra Smith was her caretaker and handled her finances.** As her caretaker, she had access to Minnie Smith's bank account. After Minnie Smith died, Sandra Smith did not close the bank account. Instead, she **kept Minnie Smith's bank account open and NYSLRS and SSA continued to deposit funds into the account** until early 2021. Smith knew exactly when those benefits would be deposited each month, and each month she allegedly withdrew the funds from the account almost as soon as they were deposited.

ACERA Response

Death Benefit Audit

- Verify member or beneficiary is alive and well.
- Update and verify member records.

Member Identity Theft Audit

- Determine if methods for member authentication are effective.
- Opportunity to implement best practice internal controls and explore technology options.

Cybersecurity Update

May 18, 2023

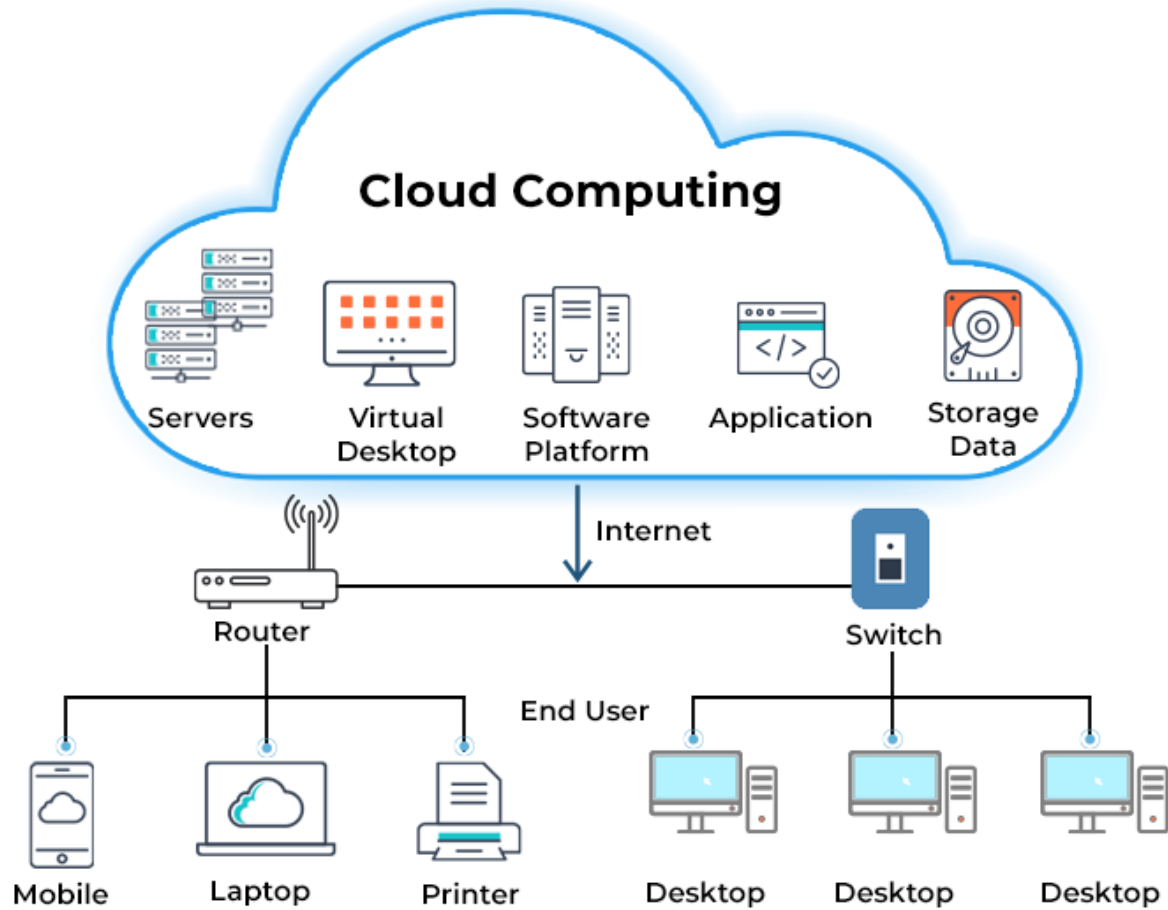
Vijay Jagar

Cloud Systems

- Amazon Web Services
- Microsoft Azure
- Google Cloud
- Alibaba Cloud
- Etc.



CLOUD COMPUTING ARCHITECTURE





Cloud Risks & Mitigations

- Lack of Visibility
- Misconfigurations
- Data Loss
- Accidental Data Exposure
- Data and Service Sovereignty
- Vendor Lock-in



Questions