Alameda County Employees' Retirement Association

BOARD OF RETIREMENT

AUDIT COMMITTEE/BOARD MEETING NOTICE and AGENDA

THIS MEETING WILL BE CONDUCTED VIA TELECONFERENCE PER GOV'T CODE § 54953(e)

ACERA MISSION:

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

Thursday, April 21, 2022
12:30 p.m.

ZOOM INSTRUCTIONS	COMMITTEE MEMBERS	
The public can view the Teleconference and comment via audio during the meeting. To join this Teleconference, please click on the link below. https://zoom.us/join Webinar ID: 879 6337 8479 Passcode: 699406 For help joining a Zoom meeting, see: https://support.zoom.us/hc/en-us/articles/201362193 Call-in Number: 1 669 900 6833	**HENRY LEVY, CHAIR**	**EX-OFFICIO**
	LIZ KOPPENHAVER, VICE-CHAIR	**ELECTED**
	DALE AMARAL	**ELECTED**
	KEITH CARSON	**APPOINTED**
	TARRELL GAMBLE	**APPOINTED**

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.

The order of agenda items 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 available online at www.acera.org.

Note regarding public comments: Public comments are limited to four (4) minutes per person in total.

Note regarding accommodations: The Board of Retirement will provide reasonable accommodations for persons with special needs of accessibility who plan to attend Board meetings. Please contact ACERA at (510) 628-3000 to arrange for accommodation.

AUDIT COMMITTEE/BOARD MEETING

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

None

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

External Audit

1. **Presentation and discussion of the GASB Statement No. 67 Valuation and addendum as of December 31, 2021**

   - Dave Nelsen
   - Andy Yeung, Segal
   - Eva Yum, Segal

2. **Presentation and discussion of the GASB Statement No. 74 Valuation and addendum as of December 31, 2021**

   - Dave Nelsen
   - Andy Yeung, Segal
   - Eva Yum, Segal

Internal Audit

1. **Progress report on the Internal Audit Plan** - Harsh Jadhav

2. **Review complete audits** - Harsh Jadhav

Trustee Comment:

Future Discussion Items:

Establishment of Next Meeting Date:

May 19, 2022, at 12:30 pm

ACERA

MEMORANDUM TO THE AUDIT COMMITTEE

DATE: April 21, 2022

TO: Members of the Audit Committee

FROM: David Nelsen, Chief Executive Officer   JJ for DN

SUBJECT: Draft Governmental Accounting Standards Board (GASB) Statement No. 67 and Statement No. 74 Actuarial Valuations and Addendums as of December 31, 2021

Executive Summary
Staff is in receipt of the draft GASB Statement No. 67 and GASB Statement No. 74 (GASB 67 and GASB 74, respectively) actuarial valuations and addendums as of December 31, 2021. It has been staff's practice to bring the GASB 67 and GASB 74 valuations (***liability reporting)*** to the Audit Committee for review and approval, as opposed to the pension valuation (***contribution funding***), which staff takes to the Actuarial Committee.

The GASB 67 valuation measures and reports the Total/Net Pension Liability (TPL/NPL), while the GASB 74 valuation measures and reports the Total/Net OPEB (Other Postemployment Benefits) Liability (TOL/NOL)

GASB Statement No. 67, Reporting the 2021 Net Pension Liability (NPL)
As of December 31, 2021, the Net Pension Liability (NPL) decreased from $2,194 million as of December 31, 2020, to $792 million as of December 31, 2021. The $1,402 million decrease is primarily a result of $813 million in total additional voluntary County Safety and LARPD General contributions made by the two employers to reduce their UAAL, and favorable investment returns during calendar year 2021 of about $502 million more than assumed.

Consider the following points when reviewing the GASB 67 report:

- The GASB rules only define pension and non-OPEB liability and expense for financial reporting purposes, and do not apply to contribution amounts for pension funding purposes. Employers and plans must still develop and adopt funding policies under current practices.
- When measuring **pension liability,** GASB 67 uses the same actuarial cost method (Entry Age) and the same type of discount rate (expected return on assets) as ACERA uses for funding. This means that the TPL measure for financial reporting shown in the report is determined on generally the same basis as ACERA's Actuarial Accrued Liability (AAL) measure for funding. Note that the same is generally true for the Normal Cost component of the annual plan cost for funding and financial reporting.
- 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 (market value) of assets and therefore, the NPL measure is very similar to an Unfunded Actuarial Accrued Liability (UAAL) calculated on a market value basis.

GASB Statement No. 74, Reporting the 2021 Net OPEB Liability (NOL)

As of December 31, 2021, the Net OPEB Liability (NOL) decreased to ($420.6) million (a surplus), from $6.7 million (a liability) as of December 31, 2020. The decrease was primarily the result of favorable investment results during calendar year 2021 of about $404.9 million (for an actual market return of 41.9%[1] versus 7.0% assumed in the valuation.

Consider the following points when reviewing the GASB 74 report:

- The GASB rules only define OPEB liability and expense for financial reporting purposes, and do not apply to contribution amounts for OPEB plan funding purposes. Employers and plans must still develop and adopt funding policies if applicable, under current practices.
- When measuring **OPEB liability**, GASB 74 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. This means that the TOL measure for financial reporting shown in this report is determined on the same basis as the Actuarial Accrued Liability (AAL) measure for funding or sufficiency purposes.[2]
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- 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 (market value) of assets. The NOL reflects all investment gains and losses as of the measurement date.

Conclusion

Segal is prepared to discuss the GASB 67 and the GASB 74 reporting valuations/addendums and, if necessary, the methodology used for calculating and reporting the NPL and NOL, which subsequently determines each employer's proportionate share of each liability.

Attachment:
ACERA GASB 67 Valuation Draft
ACERA GASB 67 Addendum Draft
ACERA GASB 74 Valuation Draft
ACERA GASB 74 Addendum Draft

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[1] It should be noted that the 41.9% market value investment return mentioned above for the SRBR is higher than the 15.95% investment return included in the December 31, 2021, Pension Funding Valuation for Association's entire portfolio. The higher return for the SRBR is primarily a result of including the 50% of future excess earnings allocated to the SRBR for the deferred investment gains as of December 31, 2021.

[2] Note that for the SRBR sufficiency valuation, the AAL has been limited to the value of SRBR assets.

Alameda County Employees' Retirement Association (ACERA)

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

As of December 31, 2021

Segal

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April 6, 2022

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, 2021. 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, 2021. 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, 2020, provided by ACERA;
- The assets of the Plan as of December 31, 2021, provided by ACERA;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board for the December 31, 2021 valuation; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc. adopted by the Board for the December 31, 2021 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.

Highlights of the valuation

1. As we disclosed in our December 31, 2021 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 test[1] (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.

2. 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 (LARPD) also made voluntary LARPD General contributions of $12.611 million on around June 29, 2021 to reduce LARPD General UAAL and associated contribution rates. The County Safety and LARPD General actuarially determined contributions were determined to reflect the amortization of these voluntary contributions.

3. The NPL measured as of December 31, 2021 was determined by rolling forward the TPL for the funded benefits as of December 31, 2020. Similar to last year, we have included in the TPL as of December 31, 2021 the non-OPEB unlimited Actuarial Accrued Liability (AAL) of $116.9 million, which was calculated by rolling forward the total unlimited non-OPEB AAL as of December 31, 2020.

4. We have also continued the practice of adjusting the Plan's Fiduciary Net Position as of December 31, 2021 to include the $51.9 million set aside by the Retirement Board in the SRBR reserve to pay non-vested Supplemental COLA and retired member death benefits[2] as of December 31, 2021. It should be noted that as of December 31, 2021, the deferred investment gain for the entire Plan was $1,133 million. Consequently, we have added to the Plan's Fiduciary Net Position the proportionate share of

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

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

one-half of the net deferred investment gain that is commensurate with the size of the non-OPEB SRBR reserve, or $26.2 million. The net effect of the adjustments to the Plan's Fiduciary Net Position as of December 31, 2021 for non-OPEB SRBR benefits was an addition of $78.1 million.

Note that the proportionate share of one-half of the net deferred market gain as of December 31, 2021 for the Pension Plan was equal to $565.9 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.

5. The $38.8 million difference between the $116.9 million added to the TPL and the net $78.1 million added to the Plan's Fiduciary Net Position as of December 31, 2021 represents the NPL attributable to non-OPEB SRBR benefits.
6. The NPL decreased from $2,194 million as of December 31, 2020 to $792 million as of December 31, 2021 primarily as a result of $813 million in total additional voluntary County Safety and LARPD General contributions to reduce their UAAL and associated contribution rates, and favorable investment return during calendar year 2021 of about $502 million[3] more than assumed. Changes in these values during the last two fiscal years ending December 31, 2020 and December 31, 2021 can be found in *Section 2*, *Schedule of Changes in Net Pension Liability* on page 18.
7. The discount rate used to measure the TPL and NPL as of December 31, 2021 and December 31, 2020 was 7.00%, following the same assumptions used by ACERA in the pension funding valuations as of December 31, 2021 and December 31, 2020, respectively. The detailed calculations used in the derivation of the 7.00% discount rate as of December 31, 2021 can be found in *Section 3, Appendix A*. Various other information that is required to be disclosed can be found throughout *Section 2*.
8. It is important to note that this actuarial valuation is based on plan assets as of December 31, 2021. Due to the COVID-19 pandemic, market conditions have changed significantly since the onset of the Public Health Emergency. The plan's funded status does not reflect short-term fluctuations of the market, but rather is based on the market values on the last day of the plan year. Moreover, this actuarial valuation does not include any possible short-term or long-term impacts on mortality of the covered population that may emerge after December 31, 2021. While it is impossible to determine how the pandemic will affect market conditions and other demographic experience of the plan in future valuations, Segal is available to prepare projections of potential outcomes upon request.
9. On July 30, 2020, the California Supreme Court issued a decision in the case of Alameda County Deputy Sheriffs' Association et al. v. Alameda County Employees' Retirement Association and Board of Retirement of ACERA. ACERA indicated that they "will await the Trial Court ruling to determine any future changes which should be minor and only impact a few pay items." We understand that as part of the trial court's proceeding, the Board made changes to how much vacation cashout and sell back can be included in "compensation earnable" and eliminated "straddling" for members with retirement date after Jun 17, 2021. It should be noted that any impact of these changes to the additional cashout assumptions will be reviewed based on actual experience in the next experience study.

[3] This amount represents the investment income on the Plan's Fiduciary Net Position for the Pension Plan and non-OPEB SRBR that is above the assumed earnings (at 7.00%) for the year ending December 31, 2021. It also includes the change in the Contingency Reserve from last year to this year.

Summary of key valuation results

Measurement Date		December 31, 2021	December 31, 2020
Disclosure elements for fiscal year ending December 31:	• Service cost[1]	$235,098,619	$221,824,117
	• Total Pension Liability	11,009,508,484	10,639,300,371
	• Plan's Fiduciary Net Position[2]	10,217,221,404	8,444,884,496
	• Net Pension Liability	792,287,080	2,194,415,875
Schedule of contributions for fiscal year ending December 31:	• Actuarially determined contributions	$303,964,590	$309,758,947
	• Actual contributions[3]	1,116,575,840	309,752,998
	• Contribution deficiency / (excess)	(812,611,250)	5,949
Demographic data for plan year ending December 31:[4]	• Number of retired members and beneficiaries	10,536	10,292
	• Number of inactive vested members[5]	3,265	3,028
	• Number of active members	11,326	11,322
Key assumptions as of December 31:	• Investment rate of return	7.00%	7.00%
	• Inflation rate	2.75%	2.75%
	• 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, 2021 and December 31, 2020 measurement date values are based on the valuations as of December 31, 2020 and December 31, 2019, respectively. The 2021 service cost has been calculated using the assumptions shown in the December 31, 2020 column, and the 2020 service cost has been calculated using the following assumptions as of December 31, 2019:

Investment rate of return	7.25%	Inflation rate	3.00%
Projected salary increases*	General: 8.30% to 3.90% and Safety: 11.30% to 4.30%		

* Includes inflation of 3.00% plus real across-the-board salary increases of 0.50% plus merit and promotional increases.

(2) 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). For 2020, the Plan's Fiduciary Net Position amount shown ($8,444,884,496) includes the net fair value of assets ($9,629,767,350) less OPEB-related SRBR assets ($1,184,882,854). The OPEB-related SRBR assets include $882,528,291 in the SRBR-OPEB reserve (after reducing the reserve by the $7,548,683 SRBR implicit subsidy transfer), and $9,051,620 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) commensurate with the size of the OPEB to total SRBR and 401(h) reserve to valuation and 401(h) reserves ($293,302,943).

(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, 2020 is used in the measurement of the TPL as of December 31, 2021.

(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.

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 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. 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 important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
Assets	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 projects the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This projection requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year. In addition, the benefits projected to be paid 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 or, if there are no assets, a rate of return based on a yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher (or equivalent quality on another rating scale). There is a reasonable range for each assumption used in the projection and the results may vary materially based on which assumptions are selected. It is important for any user of an actuarial valuation to understand this concept. Actuarial assumptions are periodically reviewed to ensure that future valuations reflect emerging plan experience. While future changes in actuarial assumptions may have a significant impact on the reported results, that does not mean that the previous assumptions were unreasonable.
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 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.
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.

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 (LARPD), 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, 2021, pension plan membership consisted of the following:

Retired members or beneficiaries currently receiving benefits	10,536
Inactive vested members entitled to but not yet receiving benefits(1)	3,265
Active members	11,326
Total	25,127

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

Note: Data as of December 31, 2021 is not used in the measurement of the TPL as of December 31, 2021.

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, 2021 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.

The tiers and their basic provisions are listed below:

Section 2: GASB 67 Information

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, 2021 for 2021 (based on the December 31, 2019 valuation for the second half of 2020/2021 and on the December 31, 2020 valuation for the first half of 2021/2022) was 26.34% 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, 2021 for 2021 (based on the December 31, 2019 valuation for the second half of 2020/2021 and on the December 31, 2020 valuation for the first half of 2021/2022) was 9.63% of compensation.

Net pension liability

Measurement Date	December 31, 2021	December 31, 2020
Components of the Net Pension Liability		
Total Pension Liability	$11,009,508,484	$10,639,300,371
Plan's Fiduciary Net Position	(10,217,221,404)	(8,444,884,496)
Net Pension Liability	$792,287,080	$2,194,415,875
Plan's Fiduciary Net Position as a percentage of the Total Pension Liability	92.80%	79.37%

The Net Pension Liability for the plan was measured as of December 31, 2021 and 2020. 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, 2020 and 2019, respectively.

Plan provisions. The plan provisions used in the measurement of the NPL as of December 31, 2021 and 2020 are the same as those used in ACERA's funding valuations as of December 31, 2021 and 2020, respectively.

Actuarial assumptions. The TPLs as of December 31, 2021 and 2020 that were measured by actuarial valuations as of December 31, 2020 and 2019, respectively, used the same actuarial assumptions as the December 31, 2021 and 2020 funding valuations, respectively. The actuarial assumptions used in the December 31, 2021 and 2020 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:

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
Other assumptions:	See analysis of actuarial experience during the period December 1, 2016 through November 30, 2019

Determination of discount rate and investment rates of return

The long-term expected rate of return on pension plan investments[4] 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, 2021 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.)

Discount rate. The discount rate used to measure the Total Pension Liability (TPL) was 7.00% as of December 31, 2021 and December 31, 2020. 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 rates[5] 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, 2021 and December 31, 2020.

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

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, 2021, 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, 2021	$2,213,837,121	$792,287,080	$(378,517,819)

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

Measurement Date	December 31, 2021	December 31, 2020
Total Pension Liability		
• Service cost(1)	$235,098,619	$221,824,117
• Interest	741,738,512	718,926,969
• Change of benefit terms	0	0
• Differences between expected and actual experience	(50,359,948)	33,007,683
• Changes of assumptions	0	236,513,333
• Benefit payments, including refunds of member contributions	(556,269,070)	(530,763,337)
Net change in Total Pension Liability	**$370,208,113**	**$679,508,765**
Total Pension Liability – beginning	**10,639,300,371**	**9,959,791,606**
Total Pension Liability – ending	**$11,009,508,484**	**$10,639,300,371**
Plan's Fiduciary Net Position		
• Contributions – employer(2)	$1,116,575,840	$309,752,998
• Contributions – member	111,091,264	106,104,226
• Net investment income	1,115,978,652	755,501,876
• Benefit payments, including refunds of member contributions	(556,269,070)	(530,763,337)
• Administrative expense	(15,039,778)	(14,809,913)
• Other	0	0
Net change in Plan's Fiduciary Net Position	**$1,772,336,908**	**$625,785,850**
Plan's Fiduciary Net Position(3) – beginning	**8,444,884,496**	**7,819,098,646**
Plan's Fiduciary Net Position(3) – ending	**$10,217,221,404**	**$8,444,884,496**
Net Pension Liability – ending	**$792,287,080**	**$2,194,415,875**
Plan's Fiduciary Net Position as a percentage of the Total Pension Liability	**92.80%**	**79.37%**
Covered payroll(4)	**$1,153,918,121**	**$1,111,848,569**
Plan Net Pension Liability as percentage of covered payroll	**68.66%**	**197.37%**

(1) The Service Cost is based on the previous year's valuation, meaning the December 31, 2021 and December 31, 2020 measurement date values are based on the valuations as of December 31, 2020 and December 31, 2019, 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 2021 "Plan's Fiduciary Net Position – beginning" amount of $8,444,884,496 and the 2021 "Plan's Fiduciary Net Position – ending" amount of $10,217,221,404.

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

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
2012	$179,648,812	$179,648,812	$0	$845,932,592	21.24%
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]

(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.

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 2021 (or the second half of fiscal year 2020/2021) are calculated based on the December 31, 2019 valuation. Actuarially determined contribution rates for the last six months of calendar year 2021 (or the first half of fiscal year 2021/2022) are calculated based on the December 31, 2020 valuation. Moreover, actuarially determined contribution rates after reflecting the voluntary County Safety and LARPD General contributions are provided in our June 4, 2021 letter for County Safety and in our June 10, 2021 letter for LARPD General.
Actuarial cost method:	Entry Age Actuarial Cost Method
Amortization method:	Level percent of payroll (3.25% payroll growth assumed in the December 31, 2020 valuation and 3.50% payroll growth assumed in the December 31, 2019 valuation)
Remaining amortization period:	**December 31, 2019 valuation** 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 13 years remaining as of December 31, 2019). 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. **December 31, 2020 valuation** 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 voluntary County Safety contributions are amortized over a 13-year period effective July 1, 2021. The voluntary LARPD General contributions are amortized over a 16-year period effective July 1, 2021.
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, 2019 Valuation**	**December 31, 2020 Valuation**
Investment rate of return:	7.25%, net of pension plan administrative and investment expense, including inflation	7.00%, net of pension plan administrative and investment expense, including inflation
Inflation rate:	3.00%	2.75%
Real across-the-board salary increase:	0.50%	0.50%
Projected salary increases:	General: 8.30% to 3.90% and Safety: 11.30% to 4.30%, 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:	3.00% 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, 2019 funding actuarial valuation	Same as those used in the December 31, 2020 funding actuarial valuation

Appendix A: Projection of Pension Plan's Fiduciary Net Position ($ in millions) for use in the Calculation of Discount Rate as of December 31, 2021

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)
2021	8,445	1,228	556	15	996	10,097
2022	10,097 *	355	662	18	692	10,464
2023	10,464	346	692	19	716	10,815
2024	10,815	334	724	19	739	11,145
2025	11,145	326	755	20	761	11,457
2026	11,457	318	785	21	781	11,749
2027	11,749	320	816	21	800	12,033
2028	12,033	324	847	22	819	12,307
2029	12,307	329	878	22	837	12,573
2045	12,511	236	1,226	23	834	12,333
2046	12,333	253	1,234	22	822	12,152
2047	12,152	251	1,240	22	809	11,950
2048	11,950	248	1,244	22	794	11,726
2090	480	40	119	1	30	430
2091	430	36	101	1	27	391
2092	391	33	85	1	25	363
2093	363	29	71	1	24	344
2094	344	26	59	1	23	333
2095	333	24	49	1	22	329
2096	329	21	40	1	22	332
2097	332	19	32	1	23	340
2098	340	17	26	1	23	354
2099	354	15	21	1	24	371
2100	371	13	17	1	26	392
2101	392	12	14	1	27	416
2111	751	7	7	1	53	803
2112	803	7	6	1	56	858
2113	858	8	7	2	60	918
2114	918	8	7	2	64	982
2115	982	8	7	2	69	1,051
2135	3,801	32	25	7	266	4,067
2136	4,067	34	26 **	7	285	4,352
2136	Discounted Value: 2 *					

* Excludes $120.2 million in the Contingency Reserve as of December 31, 2021. See Note 2.

** Projected benefit payments for the closed group of active, inactive vested, retired members and beneficiaries as of November 30, 2020 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.

Notes

1. Amounts may not total exactly due to rounding.
2. Amounts shown in the year beginning January 1, 2021 row are actual amounts, based on the financial statements provided by ACERA. The Plan Fiduciary Net Position as of December 31, 2021 differs from the amount used for other GASB 67 purposes in that it excludes the $120.2 million Contingency Reserve. These assets are not used in developing the projected total contributions in column (b).
3. Years 2030-2044, 2049-2089, 2102-2110, and 2116-2134 have been omitted from this table.
4. Column (a): Except for the "discounted value" shown for 2136, 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, 2020); 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, 2020. 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 $1.10 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 $0.06 billion as well as the remaining present value of the OPEB SRBR benefits of $0.00 billion.
7. Column (d): Projected administrative expenses are calculated as approximately 0.18% of the beginning plan fiduciary net position amount. The 0.18% portion was based on the actual fiscal year 2021 administrative expenses as a percentage of the beginning plan fiduciary net position amount as of January 1, 2021. 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, 2021 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.

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.

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:	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: 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.

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.

Segal

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VIA E-MAIL

April 12, 2022

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, 2021**

Dear Lisa:

In our draft Governmental Accounting Standards (GASB) Statement 67 actuarial valuation report dated April 6, 2022, 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 6, 2022. 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, 2020 and December 31, 2021, respectively.

In preparing the addendum letter, we have 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 are not deemed material would be reflected as part of next year's valuation.

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 (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. 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 non-OPEB SRBR NPL, we have determined the County Safety and LARPD's proportionate share of the non-OPEB SRBR NPL by using the County Safety and LARPD's required contributions, respectively, that are determined 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, 2020

Actual Employer Contributions by Employer and Membership Class
January 1, 2020 to December 31, 2020

	General Members, Excluding ACOE and LARPD		General ACOE Members Only		General LARPD Members Only		All General Members Combined	
Employer	**Contributions**	**Percentage[1]**	**Contributions**	**Percentage**	**Contributions**	**Percentage**	**Contributions**	**Percentage**
Alameda County	$129,742,973	65.180%	$0	0.000%	$0	0.000%	$129,742,973	64.672%
Health System	54,283,769	27.271%	0	0.000%	0	0.000%	54,283,769	27.059%
Superior Court	12,372,365	6.216%	0	0.000%	0	0.000%	12,372,365	6.167%
First 5	1,329,139	0.668%	0	0.000%	0	0.000%	1,329,139	0.663%
Housing Authority	1,323,493	0.665%	0	0.000%	0	0.000%	1,323,493	0.660%
LARPD	0	0.000%	0	0.000%	1,490,917	100.000%	1,490,917	0.743%
ACOE	0	0.000%	72,051	100.000%	0	0.000%	72,051	0.036%
Total for all Employers	**$199,051,739**	**100.000%**	**$72,051**	**100.000%**	**$1,490,917**	**100.000%**	**$200,614,707**	**100.000%**

Actual Employer Contributions by Employer and Membership Class
January 1, 2020 to December 31, 2020

	Safety Members		Total		Adjusted Total[2]	
Employer	**Contributions**	**Percentage**	**Contributions**	**Percentage**	**Contributions**	**Percentage[1]**
Alameda County	$109,138,291	100.000%	$238,881,264	77.121%	$238,881,264	77.104%
Health System	0	0.000%	54,283,769	17.525%	54,283,769	17.521%
Superior Court	0	0.000%	12,372,365	3.994%	12,372,365	3.993%
First 5	0	0.000%	1,329,139	0.429%	1,329,139	0.429%
Housing Authority	0	0.000%	1,323,493	0.427%	1,323,493	0.427%
LARPD	0	0.000%	1,490,917	0.481%	1,490,917	0.481%
ACOE	0	0.000%	72,051	0.023%	138,832[2]	0.045%
Total for all Employers	**$109,138,291**	**100.000%**	**$309,752,998**	**100.000%**	**$309,819,779**	**100.000%**

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

[2] 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, 2018 valuation in the amount of $78,000 based on an April 1, 2020 payment date plus the amortization of the remaining balance of the original $750,000 lump sum amount (an amount of $60,832 which represents the additional UAAL contribution ACOE would have been required to pay had they not made the additional lump sum contribution in 2019). Note that in 2020, the actual contribution made by ACOE is $72,051 which is $5,949 less than the required contribution. Since $5,949 is part of the required contributions, we included this amount for purposes of determining ACOE's proportionate share of the non-OPEB SRBR NPL.

Schedule of Employer Allocations as of December 31, 2020

Allocation of December 31, 2020 Net Pension Liability

	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)	
Employer	**NPL**	**Percentage[1]**	**NPL**	**Percentage[1]**	**NPL**	**Percentage[1]**	**NPL**	**Percentage**
Alameda County	$826,710,745	65.180%	$0	0.000%	$0	0.000%	$826,710,745	64.436%
Health System	345,891,373	27.271%	0	0.000%	0	0.000%	345,891,373	26.959%
Superior Court	78,835,615	6.216%	0	0.000%	0	0.000%	78,835,615	6.145%
First 5	8,469,156	0.668%	0	0.000%	0	0.000%	8,469,156	0.660%
Housing Authority	8,433,180	0.665%	0	0.000%	0	0.000%	8,433,180	0.657%
LARPD	0	0.000%	0	0.000%	13,833,231	100.000%	13,833,231	1.078%
ACOE	0	0.000%	832,627	100.000%	0	0.000%	832,627	0.065%
Total for all Employers	**$1,268,340,069**	**100.000%**	**$832,627**	**100.000%**	**$13,833,231**	**100.000%**	**$1,283,005,927**	**100.000%**

Allocation of December 31, 2020 Net Pension Liability

	Safety NPL (Excl. non-OPEB SRBR NPL)		General & Safety Total (Excl. non-OPEB SRBR NPL)		General & Safety Non-OPEB SRBR NPL		Total	
Employer	**NPL**	**Percentage[1]**	**NPL**	**Percentage**	**NPL**	**Percentage[2]**	**NPL**	**Percentage**
Alameda County	$850,522,497	100.000%	$1,677,233,242	78.614%	$46,946,231	77.104%	$1,724,179,473	78.572%
Health System	0	0.000%	345,891,373	16.212%	10,668,139	17.521%	356,559,512	16.248%
Superior Court	0	0.000%	78,835,615	3.695%	2,431,484	3.993%	81,267,099	3.703%
First 5	0	0.000%	8,469,156	0.397%	261,210	0.429%	8,730,366	0.398%
Housing Authority	0	0.000%	8,433,180	0.395%	260,100	0.427%	8,693,280	0.396%
LARPD	0	0.000%	13,833,231	0.648%	293,003	0.481%	14,126,234	0.644%
ACOE	0	0.000%	832,627	0.039%	27,284	0.045%	859,911	0.039%
Total for all Employers	**$850,522,497**	**100.000%**	**$2,133,528,424**	**100.000%**	**$60,887,451**	**100.000%**	**$2,194,415,875**	**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 $138,832 in 2020 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.

Notes:

Based on the January 1, 2020 through December 31, 2020 employer contributions as provided by ACERA.

<u>Pension (excluding non-OPEB SRBR)</u>

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. The Plan's Fiduciary Net Position for each membership class is obtained by allocating the total Plan's Fiduciary Net Position for Pension (excluding non-OPEB SRBR) proportionally based on the valuation value of assets for each membership class relative to the total valuation value of assets for all membership classes.[1] The total Plan's Fiduciary Net Position for pension as of December 31, 2020 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) 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.

<u>Non-OPEB SRBR</u>

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) commensurate with the size of the non-OPEB to total SRBR reserves.

For non-OPEB SRBR, the NPL is allocated based on the actual employer contributions in total.[2] 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.

<u>Total</u>

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.

[1] As of December 31, 2020, the total Plan's Fiduciary Net Position for Pension (excluding non-OPEB SRBR) is $306.4 million **higher** than the valuation value of assets as of the same date due to the inclusion of deferred market **gains**. The total Plan's Fiduciary Net Position also includes the Contingency Reserve and the deferred market gains for replenishing the Contingency Reserve from $69.0 million to $98.7 million.

[2] Includes an adjustment to reflect the total annual UAAL contribution ACOE would have been required to make of $138,832 in 2020 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.

Schedule of Employer Allocations as of December 31, 2021

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

	General Members, Excluding ACOE and LARPD		General ACOE Members Only		General LARPD Members Only		All General Members Combined	
Employer	**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%
LARPD	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

	Safety Members		Total		Adjusted Total[1,2,3]	
Employer	**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

	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)	
Employer	**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

	Safety NPL (Excl. non-OPEB SRBR NPL)		General & Safety Total (Excl. non-OPEB SRBR NPL)		General & Safety Non-OPEB SRBR NPL		Total	
Employer	**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.

[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 Pension Amounts by Employer as of December 31, 2021

		Deferred Outflows of Resources				
Employer	**Net Pension Liability**	**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 Outflows of Resources**
Alameda County	$481,002,724	$28,649,387	$0	$180,070,279	$8,697,305	$217,416,971
Health System	252,205,306	6,443,361	0	46,336,602	7,298,377	60,078,340
Superior Court	51,067,964	1,304,688	0	9,382,499	4,307,021	14,994,208
First 5	6,278,562	160,405	0	1,153,533	930,231	2,244,169
Housing Authority	5,940,077	151,758	0	1,091,345	326,368	1,569,471
LARPD	(4,882,346)	1,982,931	0	1,127,513	44,796	3,155,240
ACOE	674,793	464,980	0	31,333	17,861	514,174
Total for all Employers	**$792,287,080**	**$39,157,510**	**$0**	**$239,193,104**	**$21,621,959**	**$299,972,573**

Schedule of Pension Amounts by Employer as of December 31, 2021

	Deferred Inflows of Resources					Pension Expense		
Employer	**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	$32,303,031	$477,916,604	$50,464,747	$814,486	$561,498,868	$104,443,433	$1,500,136	$105,943,569
Health System	6,550,616	129,131,936	11,687,604	12,822,543	160,192,699	23,932,083	(527,504)	23,404,579
Superior Court	1,326,406	26,147,369	2,366,572	7,348,006	37,188,353	4,845,906	(1,082,657)	3,763,249
First 5	163,075	3,214,694	290,959	3,261	3,671,989	595,780	325,520	921,300
Housing Authority	154,283	3,041,386	275,273	551,220	4,022,162	563,664	(163,751)	399,913
LARPD	2,636,768	3,954,693	280,089	69,851	6,941,401	533,460	(33,386)	500,074
ACOE	4,090	257,996	29,310	12,592	303,988	302,361	(18,358)	284,003
Total for all Employers	**$43,138,269**	**$643,664,678**	**$65,394,554**	**$21,621,959**	**$773,819,460**	**$135,216,687**	**$0**	**$135,216,687**

Schedule of Pension Amounts by Employer as of December 31, 2021

Notes:

Amounts shown in this exhibit were allocated first by employer within each of the four pension plan membership class (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., 2021) 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, 2020 (the beginning of the measurement period ending December 31, 2021) and is 5.05 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 a decrease in the total employer pension expense from $271.8 million calculated last year to $135.2 million calculated this year. The primary cause of the decrease is the recognition of a credit of $100.4 million in this year’s pension expense that is associated with investment income on the Plan’s Fiduciary Net Position that is above the assumed earnings (at 7.00%) for the year ending December 31, 2021 for a gain of $502 million.

ACERA

MEMORANDUM TO THE AUDIT COMMITTEE

DATE: April 21, 2022

TO: Members of the Audit Committee

FROM: David Nelsen, Chief Executive Officer JJ for DN

SUBJECT: Draft Governmental Accounting Standards Board (GASB) Statement No. 67 and Statement No. 74 Actuarial Valuations and Addendums as of December 31, 2021

Executive Summary

Staff is in receipt of the draft GASB Statement No. 67 and GASB Statement No. 74 (GASB 67 and GASB 74, respectively) actuarial valuations and addendums as of December 31, 2021. It has been staff's practice to bring the GASB 67 and GASB 74 valuations (***liability reporting)*** to the Audit Committee for review and approval, as opposed to the pension valuation (***contribution funding***), which staff takes to the Actuarial Committee.

The GASB 67 valuation measures and reports the Total/Net Pension Liability (TPL/NPL), while the GASB 74 valuation measures and reports the Total/Net OPEB (Other Postemployment Benefits) Liability (TOL/NOL)

GASB Statement No. 67, Reporting the 2021 Net Pension Liability (NPL)

As of December 31, 2021, the Net Pension Liability (NPL) decreased from $2,194 million as of December 31, 2020, to $792 million as of December 31, 2021. The $1,402 million decrease is primarily a result of $813 million in total additional voluntary County Safety and LARPD General contributions made by the two employers to reduce their UAAL, and favorable investment returns during calendar year 2021 of about $502 million more than assumed.

Consider the following points when reviewing the GASB 67 report:

- The GASB rules only define pension and non-OPEB liability and expense for financial reporting purposes, and do not apply to contribution amounts for pension funding purposes. Employers and plans must still develop and adopt funding policies under current practices.
- When measuring **pension liability,** GASB 67 uses the same actuarial cost method (Entry Age) and the same type of discount rate (expected return on assets) as ACERA uses for funding. This means that the TPL measure for financial reporting shown in the report is determined on generally the same basis as ACERA's Actuarial Accrued Liability (AAL) measure for funding. Note that the same is generally true for the Normal Cost component of the annual plan cost for funding and financial reporting.
- 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 (market value) of assets and therefore, the NPL measure is very similar to an Unfunded Actuarial Accrued Liability (UAAL) calculated on a market value basis.

GASB Statement No. 74, Reporting the 2021 Net OPEB Liability (NOL)

As of December 31, 2021, the Net OPEB Liability (NOL) decreased to ($420.6) million (a surplus), from $6.7 million (a liability) as of December 31, 2020. The decrease was primarily the result of favorable investment results during calendar year 2021 of about $404.9 million (for an actual market return of 41.9%[1] versus 7.0% assumed in the valuation.

Consider the following points when reviewing the GASB 74 report:

- The GASB rules only define OPEB liability and expense for financial reporting purposes, and do not apply to contribution amounts for OPEB plan funding purposes. Employers and plans must still develop and adopt funding policies if applicable, under current practices.
- When measuring **OPEB liability**, GASB 74 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. This means that the TOL measure for financial reporting shown in this report is determined on the same basis as the Actuarial Accrued Liability (AAL) measure for funding or sufficiency purposes.[2]
-
- 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 (market value) of assets. The NOL reflects all investment gains and losses as of the measurement date.

Conclusion

Segal is prepared to discuss the GASB 67 and the GASB 74 reporting valuations/addendums and, if necessary, the methodology used for calculating and reporting the NPL and NOL, which subsequently determines each employer's proportionate share of each liability.

Attachment:
ACERA GASB 67 Valuation Draft
ACERA GASB 67 Addendum Draft
ACERA GASB 74 Valuation Draft
ACERA GASB 74 Addendum Draft

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[1] It should be noted that the 41.9% market value investment return mentioned above for the SRBR is higher than the 15.95% investment return included in the December 31, 2021, Pension Funding Valuation for Association's entire portfolio. The higher return for the SRBR is primarily a result of including the 50% of future excess earnings allocated to the SRBR for the deferred investment gains as of December 31, 2021.

[2] Note that for the SRBR sufficiency valuation, the AAL has been limited to the value of SRBR assets.

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, 2021

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.

Segal

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April 13, 2022

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, 2021. 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. The per capita costs assumptions were reviewed by Thomas Bergman, ASA, MAAA, 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.

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/

Table of Contents

Segal

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, 2021. 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, 2020, provided by ACERA;
- The assets of the Plan as of December 31, 2021, provided by ACERA;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board for the December 31, 2021 valuation; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, and health care trends etc. adopted by the Board for the December 31, 2021 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.

Highlights of the valuation

1. The NOL decreased from $6.7 million (a liability) as of December 31, 2020 to ($420.6) million (a surplus) as of December 31, 2021 primarily as a result of favorable investment return during calendar year 2021 of about $404.9 million (for an actual market return of 41.9%[2] versus 7.00% assumed in the valuation). Changes in these values during the last two fiscal years ending December 31, 2021 and 2020 can be found in *Section 2, Schedule of Changes in Net OPEB Liability* on page 16.

2. As we disclosed in our December 31, 2021 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, 2021), 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. Due to the favorable investment experience, the present value of all projected OPEB benefits for current and future retirees of $1.4 billion, based on membership data as of November 30, 2020, rolled forward to the measurement date as of December 31, 2021, is less than the OPEB assets of $1.6 billion, so that all projected benefits are expected to be covered by OPEB assets currently in the SRBR.

[2] Note that the 41.9% market value investment return mentioned above for the SRBR is higher than the 15.95% investment return included in the December 31, 2021 Pension Funding Valuation for Association's entire portfolio. The higher return for the SRBR is primarily a result of including the 50% of future excess earnings allocated to the SRBR for the deferred investment gains as of December 31, 2021.

3. The TOL as of December 31, 2021 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, 2020. 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, 2021 (reference: our draft trend letter dated March 14, 2022).
4. We have also continued the practice of adjusting the Plan's Fiduciary Net Position as of December 31, 2021 to include the $1.083 billion set aside by the Retirement Board in the SRBR reserve to pay OPEB benefits as of December 31, 2021. This includes $1.073 billion in the OPEB-related SRBR reserve (after reducing the reserve by the $5.7 million SRBR implicit subsidy transfer), and $9.2 million in the 401(h) reserve. It should be noted that as of December 31, 2021, the deferred investment gain for the entire Plan was $1.133 billion. Consequently, we have added to the Plan's Fiduciary Net Position 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, or $540.9 million (which will cause the future interest crediting rate to the SRBR reserve to be raised above 7.00% per year).
5. The Coronavirus (COVID-19) pandemic has had a significant impact on the US economy, including most OPEB plans, and will likely continue to have an impact in the future. Our results do not include the impact of the following:
   - Changes in the market value of plan assets since December 31, 2021
   - Changes in interest rates since December 31, 2021
   - Short-term or long-term impacts on mortality of the covered population
   - The potential for federal or state fiscal relief

   Each of the above factors could significantly impact the results prepared using these assumptions. The net effect of the above factors generally have not affected our assumptions for the December 31, 2021 valuation. Given the high level of uncertainty and fluidity of the current events, the Board may wish to consider updated estimates to monitor the plan's financial status. We will keep the Board updated on emerging developments.

Summary of key valuation results

Measurement Date		December 31, 2021	December 31, 2020
Disclosure elements for fiscal year ending December 31:	• Service cost[1]	$33,439,903	$31,510,436
	• Total OPEB Liability	1,203,078,101	1,191,570,896
	• Plan's Fiduciary Net Position[2]	1,623,641,492	1,184,882,854
	• Net OPEB Liability	($420,563,391)	6,688,042
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	6,664
	• Number of retired members receiving dental and vision benefits	TBD	7,906
	• Number of vested terminated members	TBD	451
	• Number of active members	TBD	11,322
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 6.75% to ultimate 4.50% over 9 years
	Medicare medical plan	Graded from 6.50% to ultimate 4.50% over 8 years	Graded from 6.25% to ultimate 4.50% over 7 years
	Dental/Vision	4.00%[6]	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, 2021 and December 31, 2020 measurement date values are based on the valuations as of December 31, 2020 and December 31, 2019, respectively. The December 31, 2021 service cost has been calculated using the assumptions shown in the December 31, 2020 column, and the December 31, 2020 service cost has been calculated using the following assumptions:

Key assumptions as of December 31, 2019:	
Discount rate	7.25%
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 trend rates for 2020 as of the December 31, 2019 measurement are before reflecting the repeal of the Health Insurance Tax (HIT) taking effect in 2021 that would further reduce 1.20% from non-Medicare plan trend of 6.75% and 0.90% from Medicare plan trend of 6.25%.

(2) 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). For 2020, the Plan's Fiduciary Net Position shown ($1,184,882,854) includes the OPEB-related SRBR reserve of $882,528,291 (after reducing the reserve by the SRBR implicit subsidy transfer of $7,548,683) and 401(h) reserve ($9,051,620), 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 ($293,302,942), after first replenishing the Contingency Reserve from $69.0 million to $98.7 million (1% of total assets). 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, 2020 data is used in the measurement of the TOL as of December 31, 2021. The following data as of December 31, 2019 was used in the measurement of the TOL as of December 31, 2020:

Number of retired members receiving medical benefits	6,575
Number of retired members receiving dental and vision benefits	7,741
Number of vested terminated members	430
Number of active members	11,336

The demographic data as of December 31, 2021 will be used in the sufficiency study for the SRBR as of December 31, 2021 as well as in the next year's GASB 74 valuation when we roll forward the liability from December 31, 2021 to December 31, 2022. The December 31, 2021 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 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).

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.t 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.

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, 2021, 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, 2021 is not used in the measurement of the TOL as of December 31, 2021. It will be used for the sufficiency study for the SRBR as of December 31, 2021 as well as in next year's GASB 74 valuation. The December 31, 2021 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 10[3] 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 $578.65 per month is provided, effective January 1, 2021. For the period January 1, 2022 through December 31, 2022, the maximum allowance will increase to $596.73 per month. For those purchasing individual insurance through the Individual Medicare Insurance Exchange, the Maximum Monthly Medical Allowance is $443.28 per month for 2021 and will increase to $457.13 per month in 2022. 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.

Medicare Benefit Reimbursement Plan:	The SRBR reimburses the full Medicare Part B premium to qualified retired members. To qualify for reimbursement, a retiree must: • Have at least 10 years of ACERA service, • Be eligible for Monthly Medical Allowance, • Provide proof of enrollment in Medicare Part B.
Dental and Vision Plans:	The SRBR provides dental and vision benefits for retirees only. The maximum combined monthly dental and vision premium are $48.12 in 2021 and 2022. The eligibility for these premiums is as follows.
Service Retirees:	Retired with at least 10 years of service.
Disabled Retirees:	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. For duty disabled retirees, there is no minimum service requirement.
Note about Monthly Medical Allowance:	The maximum levels of subsidy are reviewed by the Board annually and are not indexed to increase automatically. 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. 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.
Deferred Benefit:	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.
Death Benefit:	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 from the actives, which creates a liability for the SRBR.

Net OPEB Liability

Measurement Date	December 31, 2021	December 31, 2020
Components of the Net OPEB Liability		
Total OPEB Liability	$1,203,078,101	$1,191,570,896
Plan's Fiduciary Net Position	1,623,641,492	1,184,882,854
Net OPEB Liability	($420,563,391)	$6,688,042
Plan's Fiduciary Net Position as a percentage of the Total OPEB Liability	134.96%	99.44%

The Net OPEB Liability (NOL) was measured as of December 31, 2021 and 2020. 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, 2021 and 2020 was determined by rolling forward the TOL as of December 31, 2020 and 2019, respectively.

Plan provisions. The plan provisions used in the measurement of the NOL as of December 31, 2021 and 2020 are the same as those used in ACERA's SRBR sufficiency valuation as of December 31, 2020 and 2019, respectively.

Actuarial assumptions. 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 upcoming sufficiency study for the SRBR as of December 31, 2021 (reference: our draft letter dated March 14, 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[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 2021 trend 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

The actuarial assumptions used for the December 31, 2020 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, 2020 (reference: our letter dated March 22, 2021). The assumptions used in the December 31, 2020 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 2021):	
Non-Medicare medical plan	Graded from 6.75% in 2021 to ultimate 4.50% over 9 years
Medicare medical plan	Graded from 6.25% in 2021 to ultimate 4.50% over 7 years
Dental	0.00% for the first two years 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 four 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 2020 trend of 2.70% reflecting the standard 2021 calendar year premium of $148.50 per month, consistent with Segal's Medicare Part B memo dated November 12, 2020 was reflected in the GAS 74 valuation with December 31, 2020 measurement date.

Determination of discount rate and investment rates of return

The long-term expected rate of return on OPEB plan investments[6] 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, 2021 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.)

Discount rate. The discount rate used to measure the Total OPEB Liability was 7.00% as of December 31, 2021 and December 31, 2020. 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, 2021 and December 31, 2020.

[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.

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, 2021, 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, 2021	($259,218,822)	($420,563,391)	($553,803,980)

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, 2021, 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*	1% Increase*
Net OPEB Liability as of December 31, 2021	($567,926,103)	($420,563,391)	($238,102,379)

* *Current trend rates: 7.50% graded down to 4.50% over 12 years for Non-Medicare medical plan costs; 6.50% graded down to 4.50% over 8 years for Medicare medical plan costs, 4.00% for all years after the first year and three years for Dental and Vision costs, respectively; and 4.50% for all years for Medicare Part B costs. The first year of trend for dental was 0.00% to reflect three-year rate guarantee (premiums fixed at 2021 levels for 2022 and 2023). The first three 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).*

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

Measurement Date	December 31, 2021	December 31, 2020
Total OPEB Liability		
• Service cost[1]	$33,439,903	$31,510,436
• Interest	84,143,669	79,142,070
• Change of benefit terms	0	0
• Differences between expected and actual experience	(24,112,098)	(13,871,821)
• Changes of assumptions	(36,047,500)	57,696,237
• Benefit payments	(45,916,769)	(46,020,705)
Net change in Total OPEB Liability	**$11,507,205**	**$108,456,217**
Total OPEB Liability – beginning	**1,191,570,896**	**1,083,114,679**
Total OPEB Liability – ending	**$1,203,078,101**	**$1,191,570,896**
Plan's Fiduciary Net Position		
• Contributions – employer[2]	N/A	N/A
• Contributions – member	N/A	N/A
• Net investment income	$486,212,907	$262,139,154
• Benefit payments	(45,916,769)	(46,020,705)
• Administrative expense	(1,537,500)	(1,416,000)
• Other	0	0
Net change in Plan's Fiduciary Net Position	**$438,758,638**	**$214,702,449**
Plan's Fiduciary Net Position[3] – beginning	**1,184,882,854**	**970,180,405**
Plan's Fiduciary Net Position[3] – ending	**$1,623,641,492**	**$1,184,882,854**
Net OPEB Liability – ending	**($420,563,391)**	**$6,688,042**
Plan's Fiduciary Net Position as a percentage of the Total OPEB Liability	**134.96%**	**99.44%**
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, 2021 and December 31, 2020 measurement date values are based on the valuations as of December 31, 2020 and December 31, 2019, 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 2021 "Plan's Fiduciary Net Position – beginning" amount of $1,184,882,854 and the 2021 "Plan's Fiduciary Net Position – ending" amount of $1,623,641,492.

(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.

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
2012	N/A	N/A	0	N/A	N/A
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

(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.

Appendix A: Projection of OPEB Plan's Fiduciary Net Position ($ in millions) for use in the Calculation of Discount Rate as of December 31, 2021

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)
2021	$1,185	$0	$46	$2	$486	$1,624
2022	1,624	0	56	2	112	1,677
2023	1,677	0	60	2	115	1,731
2024	1,731	0	64	2	119	1,784
2025	1,784	0	68	2	122	1,835
2047	2,620	0	148	3	178	2,646
2048	2,646	0	150	3	180	2,673
2049	2,673	0	151	3	182	2,700
2050	2,700	0	151	4	184	2,729
2051	2,729	0	152	4	186	2,760
2052	2,760	0	152	4	188	2,792
2053	2,792	0	151	4	190	2,827
2054	2,827	0	150	4	193	2,866
2055	2,866	0	149	4	195	2,908
2056	2,908	0	147	4	198	2,956
2057	2,956	0	145	4	202	3,009
2058	3,009	0	142	4	206	3,069
2059	3,069	0	139	4	210	3,136
2060	3,136	0	137	4	215	3,210
2061	3,210	0	133	4	220	3,292
2062	3,292	0	130	4	226	3,383
2063	3,383	0	127	4	232	3,484
2064	3,484	0	124	5	239	3,595
2065	3,595	0	120	5	247	3,718
2066	3,718	0	116	5	256	3,853
2067	3,853	0	113	5	266	4,001
2068	4,001	0	109	5	276	4,163
2069	4,163	0	105	5	288	4,340
2135	267,849	0	0	348	18,737	286,239
2136	286,239	0	0	371	20,024	305,891
2136	Discounted $128					

Notes

1. Amounts may not total exactly due to rounding.
2. Amounts shown in the year beginning January 1, 2021 row are actual amounts, based on the financial statements provided by ACERA.
3. Years 2026 - 2046 and 2070-2134 have been omitted from this table.
4. Column (a): Except for the "discounted value" shown for 2136, 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, 2020. 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 gain as of December 31, 2021 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 0.13% of the beginning OPEB SRBR Plan's Fiduciary Net Position amount. The 0.13% portion was based on the actual fiscal year 2021 administrative expenses as a percentage of the beginning OPEB SRBR Plan's Fiduciary Net Position amount as of January 1, 2021. 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, 2021 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.*

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: a) Investment return — the rate of investment yield that the Plan will earn over the long-term future; b) Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates; c) Retirement rates — the rate or probability of retirement at a given age; d) 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: 1) the actuarial present value of projected benefit payments projected to be funded by plan assets using a long term rate of return, and 2) the 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 13, 2022

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, 2021**

Dear Lisa:

In our draft Governmental Accounting Standards Board (GASB) Statement 74 actuarial valuation report dated April 13, 2022, 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 draft report dated April 13, 2022. 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, 2020 and December 31, 2021, 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

[1] The December 31, 2020 and December 31, 2021 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 2020 and 2021, respectively, based on prior discussions and approval provided by the Board.

in our March 2, 2020 letter to determine ACOE's proportionate share of the non-OPEB SRBR 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. The per capita health cost assumptions were reviewed by Thomas Bergman, ASA, MAAA, 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, 2020

	Actual Employer Contributions by Employer January 1, 2020 to December 31, 2020	
Employer	**Contributions**	**Percentage[1]**
Alameda County	$238,881,264	77.104%
Health System	54,283,769	17.521%
Superior Court	12,372,365	3.993%
First 5	1,329,139	0.429%
Housing Authority	1,323,493	0.427%
LARPD	1,490,917	0.481%
ACOE[2]	138,832	0.045%
Total for all Employers	**$309,819,779**	**100.000%**

	Allocation of December 31, 2020 Net OPEB Liability	
Employer	**NOL**	**Percentage[1]**
Alameda County	$5,156,701	77.104%
Health System	1,171,817	17.521%
Superior Court	267,081	3.993%
First 5	28,692	0.429%
Housing Authority	28,570	0.427%
LARPD	32,184	0.481%
ACOE	2,997	0.045%
Total for all Employers	**$6,688,042**	**100.000%**

Notes:

1. With the exception of an adjustment for the lump sum contribution made by ACOE (see footnote 2), the above is based on the January 1, 2020 through December 31, 2020 employer contributions in total as provided by ACERA.
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.

[2] 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, 2018 valuation in the amount of $78,000 based on an April 1, 2020 payment date plus the amortization of the remaining balance of the original $750,000 lump sum amount (an amount of $60,832 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). Note that in 2020, the actual contribution made by ACOE is $72,051 which is $5,949 less than the required contribution. Since $5,949 is part of the required contributions, we included this amount for purposes of determining ACOE's proportionate share of the OPEB SRBR NOL.

Schedule of Employer Allocations as of December 31, 2021

	Actual Employer Contributions by Employer January 1, 2021 to December 31, 2021	
Employer	**Contributions**	**Percentage[1]**
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]	148,854	0.045%
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

	Allocation of December 31, 2021 Net OPEB Liability	
Employer	**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 OPEB Amounts by Employer as of December 31, 2021

		Deferred Outflows of Resources				
Employer	**Net OPEB Liability**	**Differences Between Actual And Expected Experience**	**Net Difference Between Projected and Actual Investment Earnings on OPEB Plan Investments**	**Changes of Assumptions**	**Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions**	**Total Deferred Outflows of Resources**
Alameda County	($324,547,291)	$0	$0	$47,611,249	$1,074,053	$48,685,302
Health System	(75,164,948)	0	0	11,026,735	861,301	11,888,036
Superior Court	(15,219,826)	0	0	2,232,756	415,395	2,648,151
First 5	(1,871,205)	0	0	274,507	90,869	365,376
Housing Authority	(1,770,326)	0	0	259,708	30,133	289,841
LARPD	(1,801,299)	0	0	264,251	90,047	354,298
ACOE	(188,496)	0	0	27,653	44,852	72,505
Total for all Employers	**($420,563,391)**	**$0**	**$0**	**$61,696,859**	**$2,606,650**	**$64,303,509**

Schedule of OPEB Amounts by Employer as of December 31, 2021

Employer	Deferred Inflows of Resources: Differences Between Expected and Actual Experience	Deferred Inflows of Resources: Net Difference Between Actual and Projected Investment Earnings on OPEB Plan Investments	Deferred Inflows of Resources: Changes of Assumptions	Deferred Inflows of Resources: Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Deferred Inflows of Resources: Total Deferred Inflows of Resources	OPEB Expense: Proportionate Share of Plan OPEB Expense	OPEB Expense: Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	OPEB Expense: Total Employer OPEB Expense
Alameda County	$53,424,715	$349,163,091	$26,947,006	$168,756	$429,703,568	($85,979,721)	$154,949	($85,824,772)
Health System	12,373,131	80,865,952	6,240,910	1,531,205	101,011,198	(19,912,849)	(91,530)	(20,004,379)
Superior Court	2,505,382	16,374,198	1,263,695	723,880	20,867,155	(4,032,067)	(70,885)	(4,102,952)
First 5	308,025	2,013,129	155,365	922	2,477,441	(495,722)	20,970	(474,752)
Housing Authority	291,419	1,904,599	146,989	63,518	2,406,525	(468,997)	(12,895)	(481,892)
LARPD	296,517	1,937,921	149,561	115,314	2,499,313	(477,204)	(11,196)	(488,400)
ACOE	31,029	202,793	15,651	3,055	252,528	(49,936)	10,587	(39,349)
Total for all Employers	**$69,230,218**	**$452,461,683**	**$34,919,177**	**$2,606,650**	**$559,217,728**	**($111,416,496)**	**$0**	**($111,416,496)**

Schedule of OPEB Amounts by Employer as of December 31, 2021

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., 2021) 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, 2020 (the beginning of the measurement period ending December 31, 2021) and is 6.32 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 a decrease in the total employer OPEB expense from (negative or an income) ($15.3) million calculated last year to (negative or an income) ($111.4) million calculated this year. The primary cause of the decrease was due to the favorable return on the market value of assets for the year ended December 31, 2021 which lowered the OPEB expense by $81.0 million.

[1] The remaining service lives of all employees of 6.32 years used here for GASB 75 is different from the 5.05 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: April 21, 2022

TO: Members of the Audit Committee

FROM: Harsh Jadhav, Chief of Internal Audit

SUBJECT: Progress on the 2022 Internal Audit Program

Executive Summary

The Audit Committee meeting in April 2022 will feature the progress of the 2022 Internal Audit Program. The Internal Audit Department's objective was to perform three internal audits, one policy audit, and four special projects. The Employee Benefits Security Administration with the Department of Labor recently introduced the "Cybersecurity Program Best Practices" for ERISA-covered pension plans. Although ACERA is not an ERISA plan, the cybersecurity best practices recommended are still applicable. One specifically relevant recommendation was reviewing how our third-party service providers protect member data and other sensitive information. Therefore we have added a new Third-Party Service Provider Audit to the audit program.

We also had our annual fraud training for ACERA employees to discuss important topics ranging from working with member data and protecting member accounts to the value of implementing a fraud hotline and understanding how to build better internal controls. We ended our session with a wonderful session on how to manage stress. I want to recognize Sandra Duenas-Cuevas, Jessica Huffman, Nicole Mallari, Kevin Weller, Caxton Fung, Lyndon Coggin, and Hema Talreja for showcasing their expertise and delivering some amazing presentations.

The Internal Audit Department has been working closely with PRISM to conduct a Cybersecurity and Data Security Self-Assessment. This project involves advising on a self-assessment of the incident response procedures for the critical processes to uncover gaps, potential weaknesses, and threats that could undermine the security of sensitive information. Furthermore, it is a vital readiness step to ensure the infrastructure and IT environment supports the upgraded pension system. Vijay Jagar will present a high-level presentation of the types of attacks faced by ACERA and other public entities.

2022 Audit Schedule

Internal Audit Plan (2022)	Service Line	Assigned	Status	Q1	Q2	Q3	Q4
Felony Forfeiture Policy Audit	Policy Audit	Caxton	In Progress				
Prevent Member Identity Theft Audit	Internal Audit	Lyndon	In Progress				
System-Wide Benefit Calculations Audit	Internal Audit	Lyndon/Caxton	Not Started				
Workforce Resilience Audit	Internal Audit	Harsh/Lyndon	In Progress				
Third-Party Service Provider Audit	**Internal Audit**	**Harsh**	**New**				
Workers Compensation Contributions and Service Credit Project	Special Project	Caxton	In Progress				
Commercial Bank Internal Controls Project	Special Project	Lyndon	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				
2022 Annual Risk Assessment	Administration	Harsh	Completed				
2023 Annual Risk Assessment	Administration	Harsh	Not Started				
Fraud Hotline Management	Administration	Lyndon	Continuous				
Fraud Training	Administration	Lyndon/Caxton	Completed				

2022 Audit Program

Policy Audits

Felony Forfeiture Policy Audit
The purpose of the audit is to review compliance with the ACERA Felony Forfeiture Policy. This policy provides guidance on how participating employers handle felony forfeitures of retirement benefits. The Public Employees' Pension Reform Act of 2013 ("PEPRA") added two forfeiture statutes applicable to public employees convicted of felonies on or after January 1, 2013. The audit also examines participating employer compliance by selecting employers to determine if the employer implemented effective procedures to report felony forfeitures to ACERA.

Internal Audits

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.

System-Wide Benefit Calculations Audit
The purpose of the audit is to sample active, deferred, and retired members to ensure internal controls preventing overpayments are in place and operating effectively. Our approach will be to perform several small sample size audits to review several types of benefit calculations for accuracy and completeness. With smaller data sets, we can quickly uncover potential systemic issues and recommend a remediation strategy. In addition, we will continue to examine if the final pensionable salary calculation for retired members is accurate.

Workforce Resilience Audit
This review aims 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 review 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

Workers Compensation Contributions and Service Credit Project
Staff requested a review of ACERA's process for collecting member and employer contributions on Worker's Compensation Pay.

Commercial Bank Internal Controls Project
The Fiscal Services Department has asked Internal Audit to provide advisory services and test internal controls for 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 the 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 2022 Audit Program objectives. This year the program includes four audits and four special projects. I want to acknowledge my staff for their strong effort and dedication to delivering quality work. The Internal Audit Staff will continue to do an excellent job partnering with management, servicing the Board of Retirement, and protecting our members.

Internal Audit Department 2022 Internal Audit Plan

April 21, 2022

Agenda

1. Progress on the Internal Audit Plan
2. Cybersecurity Update

Department of Labor Cybersecurity Guidance

EMPLOYEE BENEFITS SECURITY ADMINISTRATION UNITED STATES DEPARTMENT OF LABOR

CYBERSECURITY PROGRAM BEST PRACTICES

ERISA-covered plans often hold millions of dollars or more in assets and maintain personal data on participants, which can make them tempting targets for cyber-criminals. Responsible plan fiduciaries have an obligation to ensure proper mitigation of cybersecurity risks.

The Employee Benefits Security Administration has prepared the following best practices for use by recordkeepers and other service providers responsible for plan-related IT systems and data, and for plan fiduciaries making prudent decisions on the service providers they should hire. Plans' service providers should:

1. Have a formal, well documented cybersecurity program.
2. Conduct prudent annual risk assessments.
3. Have a reliable annual third party audit of security controls.
4. Clearly define and assign information security roles and responsibilities.
5. Have strong access control procedures.
6. Ensure that any assets or data stored in a cloud or managed by a third party service provider are subject to appropriate security reviews and independent security assessments.
7. Conduct periodic cybersecurity awareness training.
8. Implement and manage a secure system development life cycle (SDLC) program.
9. Have an effective business resiliency program addressing business continuity, disaster recovery, and incident response.
10. Encrypt sensitive data, stored and in transit.
11. Implement strong technical controls in accordance with best security practices.
12. Appropriately respond to any past cybersecurity incidents.

Internal Audit Plan

Internal Audit Plan (2022)	Service Line	Assigned	Status	Q1	Q2	Q3	Q4
Felony Forfeiture Policy Audit	Policy Audit	Caxton	In Progress				
Prevent Member Identity Theft Audit	Internal Audit	Lyndon	In Progress				
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2023 Annual Risk Assessment	Administration	Harsh	Not Started				
Fraud Hotline Management	Administration	Lyndon	Continuous				
Fraud Training	Administration	Lyndon/Caxton	Completed				

Fraud Training (Internal)

Date: March 31st

Time: 1:00PM – 2:30PM

Agenda:

1:00-1:20 PM Working with Member Data – Sandra & Nicole

1:20-1:40 PM Protecting Member Accounts - Jessica & Kevin

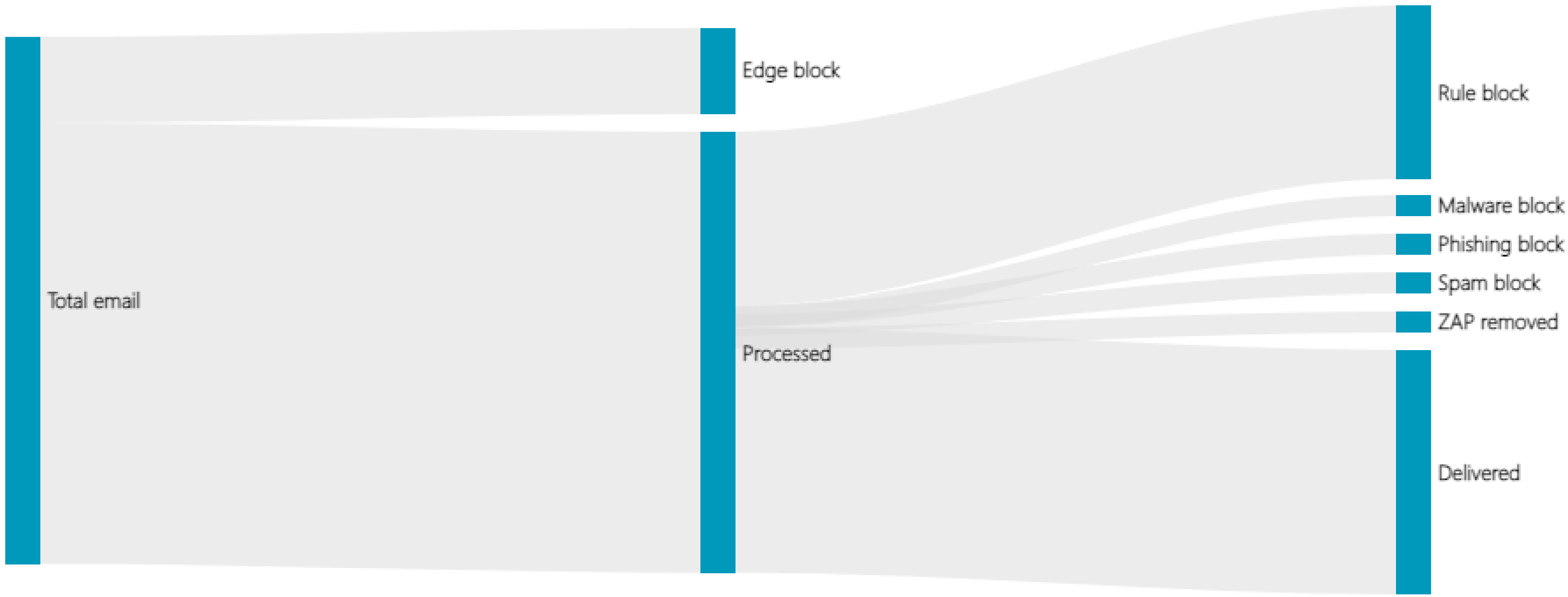
1:40-1:50 PM Fraud Hotline - Lyndon

1:50-2:10 PM Why the Internal Controls Don't Work - Caxton

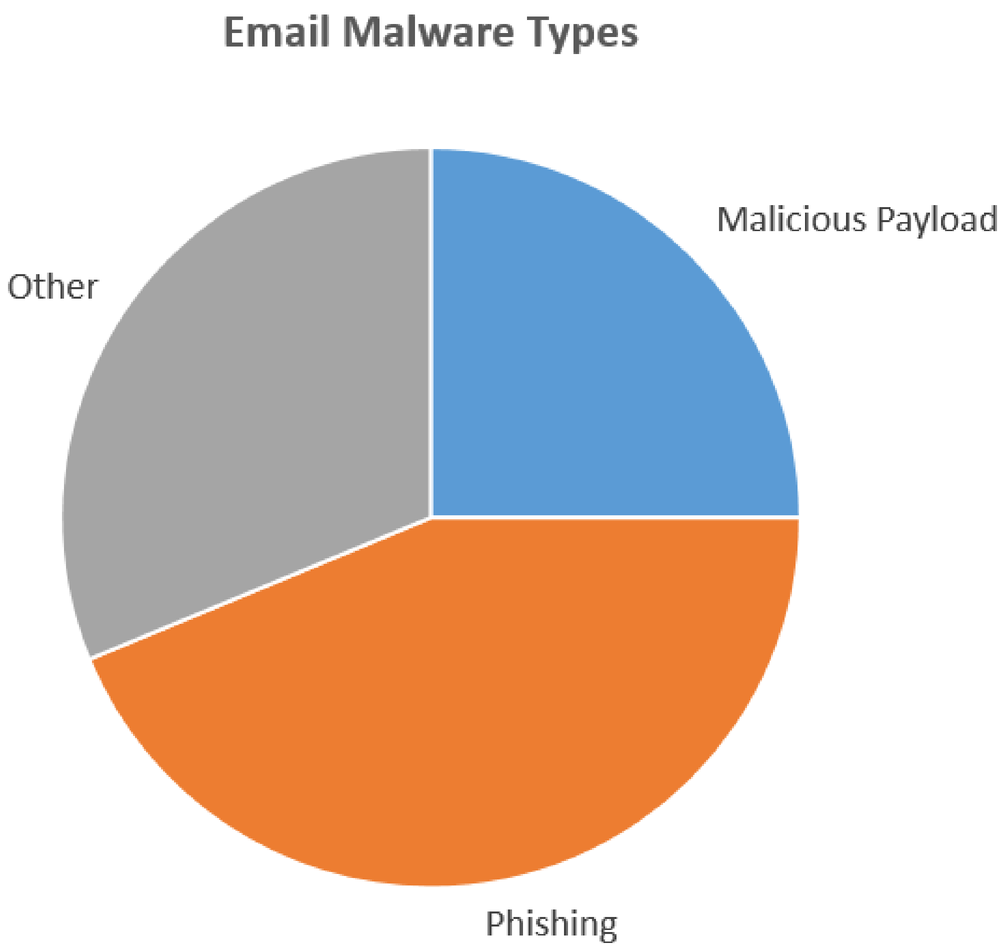
2:10-2:30 PM Manage Stress in a Healthy Way – Hema

Cybersecurity Update: Email

ACERA receives approximately 2,400 emails per weekday.
Only 40% are legitimate (“delivered”):



Cybersecurity Update: Email



Questions